

# Peer Pressure: The Key to Competition, Success, Innovation, and Reform

Why Chinese light bulbs burned too late and a great divergence left  
them in the dark

By first last

Before the 1820s, China and the West shared similar characteristics in economic growth. Then, Western nations experienced a technological take off and high economic growth rates that created the phenomenon known as the Great Divergence. In order to understand why China, who previously had led the world in technological innovation, was left behind, we must consider the reasons for growth in the West at the time and the general essential factors needed for growth.

Key Words: Great Divergence, China, the West, Great Britain, Qing Dynasty, Technological takeoff, Coase Theorem, Innovation, Confucianism, Pluralism, Opium War, Imperialism, Mercantilism

## ***Introduction***

If China had similar growth patterns as the West did before the 1820s, why was China not apart of the take off experienced by the West? By comparing and analyzing the different systems of government, forms of foreign policy, and the social structures between the West and China, we find some key reasons for China's inability to compete with the West.

One of the key factors for growth lay in investment of innovation. The Western nations in the 1820s had a vast playground for investment, providing great incentives for common people and enlightened thinkers to innovate. The Western policy was mercantilist and open and had an emphasis on capital, and its society was more individualistic. China was different in all aspects. The country remained closed and the emperor maintained an attitude that looked down upon mercantilist notions. China valued a central view in politics and society and believed in a common, correct way of thinking, ciphering off new ideas and therefore innovation. Thus, China did not provide the proper environment for investment and innovation that is necessary for growth, causing the nation to fall and watch from behind as the Western nations sky-rocketed in growth.

First I will compare China and the West's economic conditions before the takeoff. After understanding the factors that provided the ability for growth in the West, I will then evaluate the same factors in relation to China. By noting the contrasting elements in Chinese domestic and foreign politics as well as its society, we find that China lacked the key ingredient at the time, necessary for change; the key being the pressure to change.

## ***Analysis***

By the 1800s the gap between the West and China in innovation and technology was enormous. Many of the Western nations became decentralized after a period of enlightenment. They began to take on imperialist policies, opening communication and trade with other nations. Mercantilist policy made available a large supply of natural resources. The population of Europe had grown large and nation states were erected. All of these factors contributed to a more competitive mindset that drove the Western nations to innovate in order to remain in the game of politics. Economic growth became an essential goal of the newly distinguished nation states. Theses states recognized that a strong economy provided for a strong base of defenses for

survival. During this time, Malthus hypothesized overcrowding and starvation due to the population influx. However, he did not take into account the pressure applied due to population growth provoked institutional and policy changes that would provide for technological growth (Economist 1999). The Western nations, therefore, had the necessary factors to partake in a technological take-off. Foreign and internal pressures pushed the Western nations to innovate leading to growth.

China, in the 1700s had similar economic conditions as the West. The nation had a rich Lower Yangzi region, which provided for large food supplies. There also was a growing population, even more rapidly than Europe's population (Shirokauer 2006, 389). A rich, agricultural market promoted the development of a manufacturing market. China soon became the "sink" of the world's silver reserves, and all nations were importing Chinese products. The unique water systems in China provided for the ability of quick transportation of goods across the land. Therefore, China had the potential and the ability to grow due to its natural endowment. If China had all the physical factors necessary for a similar takeoff as in the West, then there must be other factors that halted China's ability to thrive.

## ***Implications***

### *Domestic Factors*

One fact to consider is that China's geography allowed for a larger population. Europe had smaller amounts of arable farmland and therefore felt greater pressure from a growth in population. Thus, Europe invested in more productive technology and put in place reforms to increase yields in agriculture, which led to a technological boom. China's larger land mass allowed for a growth in population without the need for innovations that would increase productivity on less land. The water systems also allowed for greater ease in transportation, causing China to become complacent with the existing technology, and providing little incentive to invest for future development in technology.

Examining China's political environment, both domestic and foreign, we see a vast contrast to Western political policies. China's environment did not harness a path for growth. Its political system revolved around a central rule that controlled all aspects of society. It maintained Confucian values that exalted intellectuals and had Socialist ideals. Confucianism valued a sense of filial piety not only in relation to one's parents, but also to the government. It

also promoted communal over individual gain (Shirokauer 2006, 394). Central rule induced unified thought and anything that strayed from common Confucian thought was not rewarded. Due to the stress on unified beliefs, innovations and fresh ideas were stifled. The Chinese empire constantly looked to the past for a genuine guideline to the proper way of life and rule. Kang Youwei, a dominant figure of Chinese reform during the time of the fall of the Qing dynasty, even cited one of the greatest faults of the nation was its inability to change. He stated, "Our present trouble lies in our clinging to old institutions without knowing how to change" (Kang 2000, 269). Kang rejected the Confucian family system that guided society and considered it divisive. He believed this ideology was holding back the way to the modern world, which he claimed was technological progress (Kang 2000, 264). Accordingly, the Coase Theorem would suggest private bargaining should occur between reformers and the intransigents to achieve optimal gains; however, because the government followed a stringent Confucian ideology, reformers were never given the chance to bargain for the most efficient outcome. Thus the Coase Theorem fails in this case. Unable to come to the most efficient outcome also points toward the ineffective voice of reformers due to the overshadowing of the emperor and the government. Because no voice could be heard, the domestic policies pushed reformers away instituting policies that encourage inspiration and innovation. Therefore, political and economic reform was not progressive but based upon old concepts and ideology. China's ruling power therefore believed it unnecessary to change and thus did not apply pressure for innovation.

As the population rose in China, so did corruption and the unwillingness to reform. Unlike the western nations, China's technology did not parallel and was out run by the population surge. The state examination system for official positions remained outdated. Those who passed the exam system received degrees that defined the societal structure of the period. They stood at the top of the social ladder. However, new official positions were not created even though there was a surge in the population, causing the competition for the degree to rise. Many trained for all their lives to pass the exam to obtain a degree but most failed (Shirokauer 2006, 397). Subjects on the exam tested many impractical concepts that only intellectuals would know and therefore the exam was geared toward the upper class. Studying impractical subjects led to a backward government with the inability to lead economic programs. The upper class of intellectuals in accordance with Confucian values also held the merchant class as lower ranking in society, placing little value on trade and profit.

During this time, Emperor Qianlong of the Qing dynasty took part in expensive and unnecessary military expeditions. Corruption among the officials affected tax revenue as many of the yamen clerks in charge of the taxation took a large percentage for themselves (Hong 2000, 178). In order to pay for the surmounting debt, Emperor Jiaqing began selling official posts and titles and cut costs on public projects and expenditure (Shirokauer 2006, 406). The buying and selling of posts just contributed to an increase of corruption as the rich bought the titles. The wealthy upper class constituted the majority of China's landowners, as well. Because the landowners represented a small percentage of the population, the country became saturated with inequality. Inequality due to the power of the landlords created a sort of feudal system. China's version of Malthus, Hong Liangji, claimed that the state needed to redistribute (Hong 2000, 175). Because those that ran the country were the landlords and were complacent with the profits they were making, there was no impetus to reform or innovate. Unfortunately, the majority of the Chinese remained under the control of such corrupt landlords. This was also contributed by the lack of property rights in China, which causes uncertainties in future gains, inhibiting investment. The government owned the land, and thus common property instilled the problem of the commons. Not only did this sort of communal, feudal system hurt incentives but also lowered productivity. Other peasants could free ride and assume other peasants will complete the jobs. Due to the lack of innovation in farming, the yield produced in agriculture remained the same, and in order to maintain a sufficient food supply, it was necessary to cultivate larger plots of land. This eventually led to the destruction of the soil and water systems, which had contributed to China's initial success (Shirokauer 2006, 411). These factors all weakened the rule of the Qing dynasty and created an inept government. When government runs state and society, ineptitude initiates a vicious cycle, which causes a lack of incentive to invest in knowledge for future growth for fear that instability will cause no future gains.

### *Foreign Factors*

In addition, China's foreign politics prevented the initiative to innovate. After the 1400's, China began closing its doors to other nations and began a seclusion phase. China maintained a system of tribute, in which the nations surrounding China would provide tribute for protection and kowtow to the Chinese emperor. This inflated Chinese imperial thought caused China to maintain a view that all foreign people, particularly those from the West, were barbaric

(Lin 2000, 203). Because all other nations were seen as inferior, China did not have the drive to compete. In Europe, there was constant struggle between nations that was brought over into the Americas. The proximity of their enemies caused a race to innovate for military and self-sufficiency purposes. Those that invented first tended to be the victors in conflict. Henceforth, China did not have large enemies surrounding them, providing no reason to race to the top of the technological ladder. Due to the geography, China did not have neighbors threatening its survival, while Western nations seemed too far away to plausibly be a threat.

Emperor Qianlong disdained foreign products, but nations like Great Britain had high demand for tea produced by China, among other exports. In addition, the British were limited to only a few ports to trade directly with hong merchants, who were seen as a lower class in Chinese society. Even though Great Britain requested audience with the Imperial Court, this was not granted due to the belief that the foreigners were barbaric and China had nothing to gain from them. A trade imbalance forced the British to find an alternative. The alternative was opium. Although an imperial edict made opium illegal in China, the British still smuggled in opium due to the tensions caused by Chinese attitude, crippling a large percentage of the Chinese population (Shirokauer 2006, 409). Therefore, not only was the government inept, but so were the people. In conjunction with lack of incentive due to communal gains, people inept from opium would continue the vicious cycle by matching the lack and inability to work to a persons full potential. Motivation and drive from these two factors built upon one another to continually decrease the incentive to innovate. Mounting tension between Great Britain and China led to the Opium Wars, which eventually led to the opening of China to the West and the beginning of Western imperialism on China. It was not until the pressure and assistance from the Western nations and later Japan did China begin to industrialize and modernize, catching up to the West. China's closed-door policy was in direct opposition to Western mercantilist ideals. The reason the Opium War occurred was the British insistence upon free trade. Open doors lead to open pathways and leaks of knowledge. Closed doors and arrogant attitudes led China to prohibit the entrance of foreign knowledge. In order to innovate, one must build upon known knowledge. Therefore without a base of knowledge from home and from abroad, the Chinese lost the fervor and ability to invent and grow.

## ***Conclusion***

What seems to have pushed the Western nations to develop quickly was the pressure caused by the necessity to compete for survival. When comparing the two regions of China and the West, the natural endowments and previous history seemed to show equal opportunity for both nations to take part in a technological takeoff. However, both foreign and domestic political and social factors incited little pressure for China to reform and innovate. Therefore, while Europe and the West were required to compete in an imperialist world, China remained the king of the East. Its political and social beliefs did not create an environment that invited fresh ideas. Domestically, the Western nations shared a sense of pluralism that welcomed innovation as well. Therefore the pressure among nations and among individuals in a nation to gain, installed a positive cycle of investment that eventually led it to the technological takeoff. None of these factors existed in China and therefore the Great Divergence between the West and the East occurred.

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Summary: Careful extensive research with excellent applications of course materials. It'd be great if you continue research on this topic and dig further and deeper by focusing on the most promising theory (explanation) among all hypothesis, and support it with solid data and statistics. And this could be good project to work on towards your Senior Honor thesis or future graduate work.

Score: 20 (out of 20).