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During the course of his presidential campaign, Donald Trump has repeatedly said that China is beating the U.S. in the trade war. As an economist, I usually dismiss critics, who want to put restrictions on trade, because economics has demonstrated many times that when nations can trade freely, without strong government restrictions, both of the countries involved in the trade became wealthier. However, Trump is correct to have an economic concern about China. Americans should share some of this concern and be worried about China obtaining our technology.

China has resorted to many different strategies to obtain Western technology. First, it prohibited more technologically advanced countries from doing business in China unless they shared their technology. Many companies willingly gave up their technology in exchange for the chance to sell their product to so many potential customers. Second, China purchased Western companies to obtain their knowhow. Third, they lured American trained scientists of Chinese descent back to China, realizing that they would bring their knowledge with them. Finally, China resorted to outright theft, which has made the headlines when the criminals have been caught.

History provides a lesson of the dangers to a country when its technology is obtained by other countries. In 1000 AD, the Byzantine Empire was the mightiest country in either Europe or the Middle East. It produced high valued items and traded these for raw materials with Europe, which was then backward in comparison. Silk was among the high valued items produced in Byzantium. The empire went to extraordinary lengths to keep secret the process of producing silk, killing anyone who tried to disseminate this knowledge. Despite these safeguards, someone was able to steal the secret; afterwards, he set up a silk manufacturing base in Lucca, Italy. Lucca became rich, selling silk throughout Europe. Within another two hundred years, many Italian towns produced silk cloth with better coloring than what was available in the empire.

Italian towns learned many production processes from the Byzantine Empire, including the processes for making high quality paper, glass, and soap. Once they got the initial technology, they often improved upon it and produced products that were superior to the original Byzantine products. Glass is but one example of this dynamic. After the people of Venice learned to make glass, they became so good at it that many people still know the term Murano Glass. Murano is one of the islands that make up Venice.

As the Italians started to produce the high valued luxury goods, they started to become wealthier. This wealth was able to finance the cultural explosion that we refer to as the Renaissance. Great artwork from Giotto, Donatello, and Michelangelo was made possible because the Italy city states became rich enough to afford such extravagances as great art.

As the Italians began to produce the high valued luxury goods for themselves and for the rest of Europe, the firms in the Byzantine Empire that had been exporting these goods were unable to sell very many of their products abroad. Consequently, firms in these industries failed or shrank, which caused the Byzantines to become less wealthy than the Italians, marking the decline of the empire.

The Byzantine Empire provides a lesson for the United States and other developed countries. If the US gives away or loses its technology to China, it runs the risk of being surpassed by China and other countries -- much like the Byzantine Empire was surpassed by the Italian city states. As this process played out, the Byzantine economy weakened, making the empire vulnerable to the Ottoman Turks, who eventually conquered its capital, Constantinople, in 1453. The U.S. can adopt policies to slow the transfer of our technology to China. At a minimum, the U.S. should insist that China recognize and enforce protection of U.S. patents and copyrights.

Joe McGarrity is a professor of economics at the University of Central Arkansas. Contact him by email at joem@uca.edu.