China has been Texas' fastest-growing export destination for more than a decade. Texas' exports to that nation have expanded at an inflation-adjusted average of 17.5 percent per year since 2001—the year China joined the World Trade Organization (see chart).

China's entry onto the world stage was accompanied by rapid domestic economic expansion, with average annual gross domestic product (GDP) growth exceeding 10 percent. Imports and exports both rose more than 700 percent from 2001 to 2013.

China is the fourth-largest Texas export destination after Mexico, Canada and Brazil, even as its economy weakened last year. While in 2014 Texas exports to China totaled $10.9 billion, they declined for three consecutive quarters through fourth quarter 2014.

China's real (inflation-adjusted) GDP expanded only 7.4 percent in 2014 and an annualized 7 percent in first quarter 2015—the lowest rate in six years. Projections for future growth have been revised even lower. The International Monetary Fund anticipates real GDP growth of 6.8 percent in 2015 and 6.3 percent in 2016—the lowest since 1991. Of even greater concern are signs of a deflating housing market and mounting local government debt. Since the global financial crisis of 2007–09, China's overall debt-to-GDP ratio has risen from around 120 percent to roughly 200 percent.

Weakening Chinese demand will most affect Texas' agricultural and manufacturing industries. China imports chemicals, plastics and industrial machinery from Texas. Compared with other Asian or Latin American countries, China has a larger appetite for Texas agricultural products. About $1.4 billion of Texas agricultural exports went to China in 2014. Mexico, the second-largest agricultural customer, imported goods worth $840 million that year.

The relationship between Texas exports and the Chinese manufacturing Purchasing Managers Index (PMI) provides a way to quantify the impact of a decelerating Chinese economy. Manufacturing accounts for about 32 percent of the Chinese economy, making it a good proxy for economic activity. A PMI above 50 represents expansion over the period, while a reading of 50 or below represents no change or contraction.

Using data from first quarter 2005 to fourth quarter 2014, Texas exports appear highly correlated with changes in the Chinese PMI. A statistical analysis using regression indicates that in first quarter 2015, the 0.4-point drop in Chinese PMI would imply about a $23 million impact on Texas exports to China.

A stronger dollar is another area of concern. It appreciated against China's renminbi (RMB) in 2014 after weakening in prior years. For China, a declining RMB could lead to capital outflows and damp officials' efforts to make the RMB a global reserve currency. However, if China's economic fundamentals deteriorate further, Chinese authorities may still seek to loosen ties to the dollar and further depreciate the RMB, which would make Texas products more expensive in China.

China also affects Texas' economic relationship with other countries and states. For example, China's burgeoning demand for commodities over the past decade helped boost growth in Brazil's commodity-driven economy. A slowing China lessened Brazil's demand for Texas exports, which have declined over 20 percent from first quarter 2014 to fourth quarter 2014.

As China's economy decelerates, energy consumption is also expected to slow. China is the world's second-largest consumer of oil and is about to become the largest importer of the commodity. Growing supply has contributed to falling global oil prices since mid-2014, with Texas energy sector employment falling. Further softening of Chinese energy demand will have consequences for oil prices, dimming prospects for a recovery and possibly depressing oil prices further.

Notes

1 Inflation-adjusted export growth between 2001 and 2013. The nominal export values are adjusted using the U.S. export deflator reported by the Bureau of Labor Statistics.

2 China surpassed the U.S. as the largest net oil importer in April 2015.