China has experienced extraordinary growth over the past three decades, since the beginning of China's economic reforms and gradual opening up to world trade and investment. There is some difference of opinion over just how fast the growth was. The late economic historian Angus Maddison reckoned it was about two percentage points below the official rate – partly because, he felt, China understated its GDP in the early 1980s, partly because it understated the true rate of inflation over the 1980s and 1990s, on both counts reducing the reported rate of growth. But even with Maddison's downward adjustment, the growth was extraordinary, even higher than growth in Japan and in South Korea during their decades of most rapid growth during the past half century.

What is the explanation for this rapid growth? Partly the Chinese economy was extraordinarily inefficient in 1980, following more than two decades of central planning and the disruptions of the Cultural Revolution. But several other factors were also at work. First, China during these decades enjoyed what demographers call a "demographic dividend," meaning the share of the population in the labor force first grew and then was exceptionally high (reaching an unusual 70? percent), as child dependency fell and before exceptional aging occurred. Second, China generated unusually high rates of investment during this period, sometimes even exceeding half of GDP, thus raising future output. Third, large numbers of workers left low-efficiency agricultural jobs for higher earning jobs in manufacturing or services; over 25 percent of the labor force moved out of agricultural jobs and into other jobs during the three decades 1980-2010, thus increasing GDP. Fourth, China was a relatively small exporter thirty years ago, and it increased its share of world exports steadily, recently overtaking Germany as the world's largest exporting country. What economists call an elastic demand for China's exports assured that increased manufacturing output could readily be sold abroad. Fifth, not least, China's production technology was far behind best practice in the world thirty years ago. The gap, while still present, has narrowed substantially, reflected numerically in what economists call growth in "total factor productivity," meaning growth in output after allowing for a larger and more educated labor force and a larger stock of capital. All of this was facilitated, of course, by the natural entrepreneurship of Chinese businessmen and women when given adequate incentives, by the diaspora of overseas Chinese who brought their skills and marketing connections to China, and by the foreign firms which have invested in China since being permitted and encouraged to do so.

Can China continue its rapid growth for another two decades? Chinese authorities have scaled the rate of growth in the 12th five-year plan (2011-2015) back to 7.5 percent. Are there solid grounds for this projected decline, or are they perhaps simply trying to reduce expectations so that the actual results will be a pleasant surprise, as happened in the previous plan period? We can examine the five factors mentioned above as accounting for China's extraordinary rate of growth in recent decades. Take demographic factors first. China will continue to enjoy the "demographic dividend" for another five years or so, but then the ratio of seniors, those over 65 years of age, will begin to grow rapidly relative

to those in what is normally considered the ages of active employment, 15-64. The number of young adults, those entering the labor force, is expected to decline significantly in the coming years. Unless Chinese continue to work after age 65, the demographic factor will gradually become negative.

China's rate of investment continues to be exceptionally high, but it is feared that some of this investment will show low rates of return, even producing excess capacity in some manufacturing sectors such as steel. Indeed, there is evidence that the rate of return to capital has already begun to decline. Again, this decline will exert a negative effect on growth, the more so if the rate of investment also declines in response to lower returns.

China still has over forty percent of its labor force in agriculture, so in principle much growth in output can occur by moving further toward the rich country norm of well under 10 percent of the labor force in agriculture. But two factors suggest that this process will slow down compared with what has occurred during the past thirty years. First, those remaining in agriculture are markedly older, on average, than those in agriculture twenty or thirty years ago. The most mobile people have already moved, and older people will both be more reluctant to move and will find it harder to find satisfactory non-agricultural jobs. Second, Chinese land-tenure rules inhibit all members of a family moving off the farm. Farmers do not own their land, and therefore cannot sell it. Rather, they use it on contract from the community. If all members of a family leave for other pursuits, the land reverts to the community for re-allocation. Many families are reluctant to give up their use rights.

Fourth, since China is now the largest exporting country in the world, it can no longer increase exports at double-digit rates. To a first approximation, China's exports can only grow as rapidly as world trade grows, perhaps 7 or 8 percent a year. If China does not slow the growth of its exports, for example through rising wages in manufacturing or through appreciation of its currency, other countries will. Exceptionally rapid growth of a country's exports is tolerable when the country's share of world exports is small, but ceases to be when the country has become as large as China. Already, Chinese products are the most common target of so-called antidumping actions around the world. So export growth will slow.

Against these various negative factors must be put the great expansion of China's system of education, especially higher education, during the past fifteen years. The average entrant to China's labor force is much better educated today than was true three decades ago, and the improvement in quality is likely to continue even while the number of young adults entering the labor force declines. If these better educated persons can be productively employed, that will tend to augment growth. Furthermore, China's production is often still behind best practice in the world, so the scope for increases in total factor productivity remains high. Perhaps, despite the several negative trends, China's economic performance will again surprise the world – and the Chinese authorities.