# CHINA CENTRIC

## The True Story of China Manufacturing Costs

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The "convenient truth" in many business media sources is that China's manufacturing sector is losing its competitive edge and that labor costs in particular are pricing China out of many manufacturing segments. Skimming across the surface can easily lead to an incomplete analysis that distorts reality and can even give the wrong answer. The truth is that careful consideration of the facts and global comparative trends paints a different picture. On a macro basis, China's manufacturing sector is healthy, climbing rapidly up the technology and quality curve, and can be expected to continue to expand at annual rates well above the global average into the foreseeable future.

To be clear, no country – including China – has ever been or ever will be the best place to manufacture every product. Each country has comparative advantages that make various segments more or less advantageous for local manufacturing. Further, comparative advantage morphs over time, creating advantages and opportunity for other countries. Equally important, no economy can avoid the effects of business cycles that cause the rates of economic growth to rise and fall periodically.

It is true that China manufacturing costs have increased in recent years. However, the comparative impact on competitiveness of China versus other countries is a different story. If China's intrinsic manufacturing cost structure was no longer competitive, China's exports of goods and services would be declining in favor of other countries. However, while exports of every country rise and fall periodically, the fact is that China is by far the world's largest exporting nation, eclipsing #2 – the United States – by over 40%. The table below, published by the United Nations Trade Statistics, presents the 2015 export data for the world's four largest exporting countries:

Country	Exports in \$Millions		
China	\$	2,143,000	
United States	\$	1,510,000	
Germany	\$	1,309,000	
Japan	\$	622,000	

Source: CIA Trade Statistics

#### Why Have China's Export Prices Increased?

**Exchange Rate Changes:** A superficial, but incorrect answer would be to point to labor rate increases as the prime reason for price increases. Would it surprise you to learn that labor rates are a smaller factor than exchange rates? While China's export prices have increased steadily in prior years, prices of China's exports have generally stabilized since the beginning of 2014, with some export segments actually showing reduction of prices. This coincides exactly with the change in currency value trending. The chart below presents the currency rate at four key dates – ten years ago, the beginning of the decade, the peak RMB value against the USD and the current rate.

Date	RMB/ USD	USD/ RMB	RMB Value Change	Cumulative RMB Change
9/25/05	8.09	0.1236		
1/4/10	6.83	0.1464	18.5%	18.5%
1/17/14	6.05	0.1653	12.9%	33.8%
9/11/15	6.37	0.1570	-5.1%	27.0%
12/17/16	6.95	0.1438	-8.4%	16.3%

Between September 2005 and January 2014, China companies exporting in USD experienced an equivalent 33.8% REDUCTION in their revenue, just from exchange rate movement. Most mid-sized U.S. importers insist that their prices be denominated in USD. When Chinese companies as well as Chinese subsidiaries of Western firms supplying their parent companies converted their USD into RMB in China – where their bills must be paid – companies realized 33.8% fewer RMB in 2014 than in 2005. Even if all other costs – materials, labor and overhead – had remained unchanged, China's exporting companies

and Chinese subsidiaries of U.S. companies would have had to increase prices in USD by 33.8% just to maintain constant prices in RMB.

Since the peak value, China's RMB value has declined fairly sharply, but (on a net basis), accumulated currency effect is over 16% - a net price reduction realized by all China exporter, purely related to currency. Chinese exporters being paid in USD receive 16% fewer RMB for the same volume of goods shipped. If we just looked at the recent 2 years, from the end of 2014 to the end of 2016, Chinese manufacturers exporting products have seen a 14.9% increase in their prices. For every \$1 of exports in 2014, they received RMB 6.05 on conversion. In December 2016, the same \$1 on exports generated RMB 6.95 in China. Theoretically, U.S. importers should be asking for price reductions from 2014 levels. Our observation is that most U.S. importers have been happy with stable prices and have not pursued this significant opportunity aggressively.

Productivity Improvement: Productivity improvement across industries in China is the greatignored factor in the manufacturing cost equation. Over the last decade, Western companies operating in China and those sourcing from China have demanded guality and efficiency improvement. Lean Manufacturing programs were almost unheard of in 2000 but are now wide spread. Continuous improvement is becoming the same core driver of the manufacturing process in China as in the developed world. One example of the effects of these trends is that China became the world's largest market for industrial robots in 2013 deploying 20% of the global capacity, according to the International Federation of Robotics.

If wage rates increase 10% and productivity increases 10%, the labor cost per unit of production increases 0%. Focusing only on wage rates overlooks the impact of rapidly improving industrial productivity in China. I am not suggesting net labor costs have not increased. However, productivity gains have offset a significant portion of wage rate increases. Focusing only on wage rates without understanding the whole story yields a distorted picture.

Wage Rates: Conventional wisdom is that wages have been increasing across China at double-digit

annual rates. In cities like Shanghai, Beijing, Guangzhou and Shenzhen, rates have risen faster and in some years at rates of 10% or more. However, nationally the rate increase has been far lower. Just as in the U.S. where wages in cities like New York, Chicago and Los Angeles have made manufacturing in those cities uncompetitive, the same has happened in the major cities of China.

If you moved short distances from these major cities, labor rates are significantly lower and rising at far lower rates. A contributing factor to labor rate increasing at a lower rate away from the large cities is China's unique Hukou registration system, which controls and limits the pace of labor migration across the country, exerting a major influence on labor availability and costs in various regions.

Some recent reports have erroneously stated that wage increases over the years have "effectively equalized" wage rates between China and the U.S. According to the U.S. Bureau of Labor Statistics, hourly earnings (excluding benefits) for production workers in the U.S ranges from \$12.05 per hour for low-skilled Workers to \$19.90 per hour for highly skilled machinists. In contrast, a skilled CNC machine operator in Shanghai (the highest cost city in China) earned RMB 6,000 per month. Assuming ~170 work hours in a normal month and an exchange rate of 6.5 RMB per USD, that skilled Chinese CNC machine operator earned \$5.42 per hour - 72% less than his American counterpart. Even comparing China's highest cost labor market - Shanghai - China's wage rates are far below the averages in the U.S. Not only have wage rates not equalized yet between the two countries, if U.S. wages were to increase only 2% per year and China's increase at 10% per year, the math is that equalization will not happen until 2032 - and the U.S. wage increase assumption is low and the China increase is very aggressive given actual national average increases.

**Commodity Prices:** From 2005 through 2014, the world experienced significant – almost constantly upward – volatility in commodity prices. This was not a China issue; it was a global issue impacting manufacturers everywhere. The material cost impact was essentially a level playing field and price increases attributed to material costs were felt fairly uniformly and had minimal (if any) effect on the

relative competitive position of China manufacturing versus other countries.

### Current "Truths" and Future Expected Trends of China Manufacturing Costs.

While "convenient" to oversimplify the issue and reach a hasty conclusion that China is becoming less competitive as a manufacturing platform, close analysis of the actual situation paints a different picture of China's current competitiveness and the future prospects:

- China is by far the world's largest exporter of manufactured goods and its exports continue to grow – underscoring its continued relative competitive position;
- Currency valuation has been a major factor over the last decade. Since January 2005, suppliers had to increase USD prices by 16.3%, just to receive the same RMB revenue;
- Since January 2014, the currency effect has reversed with the weakening of the RMB and it can be expected that currency valuation will be a less significant factor on prices of manufactured products in the future as the RMB appears to have reached its approximate free market value;
- While wage rates will continue to increase, these increases will be much lower away from the four major traditional industrial cities of Shanghai, Beijing, Guangzhou and Shenzhen and will rise at significantly lower rates;
- The Hukou system will reinforce the labor cost and availability between the four major industrial cities and second tier rapidly developing cities – many of them inland; and
- Labor productivity is rising fast in China, offsetting much of the labor rate increases.

Considering all factors influencing labor markets in China, the balanced conclusion is that China will remain a highly competitive manufacturing environment for the indefinite future. Regional cost and labor market differences will shift manufacturing advantages to various regions away from the four major cities of Shanghai, Beijing, Guangzhou and Shenzhen.

If we only consider the manufacturing influences of the local demand economy, the positive outlook is almost assured. Today there are ~400 million Chinese living in families with the purchasing power equivalent income of \$50K USD. While China is a large market with a middle class larger than the entire population of the United States, there remains ~1 billion people who have not yet progressed to this level. The horizon for local demand growth underscores the prospects for high local manufacturing growth well into the next decade and probably beyond for a country that contains 20% of the world's population.