

Reshoring of EU manufacturing

SUMMARY

Rising costs in formerly low-cost countries and the need for jobs in developed countries has recently brought reshoring – bringing back manufacturing – to the fore.

It would reverse the significant offshoring of EU production to low-cost countries, which occurred from the 1980s through to the 2000s. China was the main destination, though its mass attraction to enterprises now appears to have largely run its course and there does not appear to be any other "new China" on the horizon.

"Total landed cost" is a key measure for the manufacturing-sourcing strategy. It includes labour cost, which has recently been rising rapidly in China in real terms. Transport costs are also significantly higher, making shipping from Asia disadvantageous. Other elements are the higher inventory levels needed, and issues with product quality and intellectual property rights.

However, so far there is little evidence of reshoring from China, despite rising costs, labour discontent and a government less friendly towards foreign enterprises. Indeed significant mass returns of the manufacturing jobs that left developed countries from the 1980s onwards appear unlikely. This is because of technological / management changes in production and a re-balancing of the centres of world GDP.

Changes in production processes mean that a lot less manpower is needed for each unit made and they are produced via global value chains, often seeking the lowest cost anywhere in the world for each of the many parts in the chain. Furthermore, a greater proportion of world GDP is now outside the EU and is fulfilled via local production close to the consumer. China now also has significant manufacturing skills and competence and its own will to retain this successful sector.

Thus though reshoring may occur it most probably will not result in a return to the previous position, employing large numbers in manufacturing and a large export base.



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Glossary

Reshoring: the partial or total return of production previously offshored to low-wage countries to the original country, to serve local, regional or global demand.

It is also referred to as: inshoring, reverse offshoring, onshoring, backshoring and insourcing.

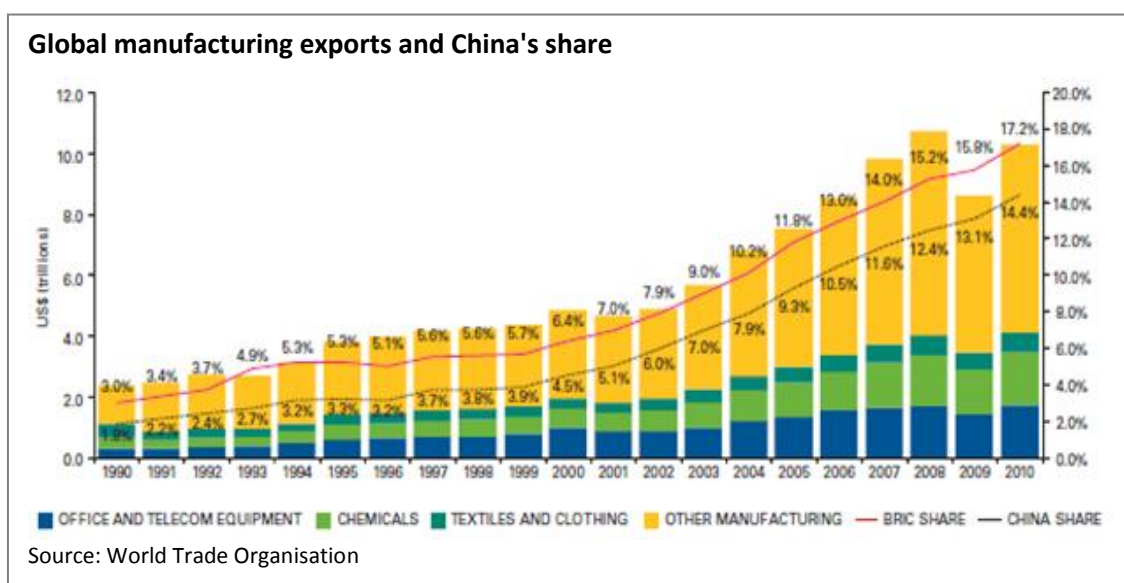
Historical context

In the early 1950s the US accounted for 40% of the world's manufactured goods. From this dominant position it decreased as, first, reconstructed Europe, then Japan, followed by the east-Asian "Tigers" (including Taiwan and South Korea) cumulatively took growing shares of worldwide manufacturing production.

China is the most recent major country to modernise, industrialise and export. This has brought a "one-of" massive impact on worldwide manufacturing. Since the late 1970s and accelerating through the 1990s and into the 2000s, manufacturing production has offshored from developed nations mainly to China. Significant cost-savings were the motivation, allowing firms to remain competitive in a changing world, which became much more open to global trade, aided by technological change: vast improvements in computers and telecommunications. Relocation to China has been a simple choice, with seemingly limitless low-cost labour, a large and expanding domestic market, low currency value and government incentives including inexpensive land, free infrastructure and generous financial incentives. None of the other low-cost developing countries is expected to have the impact of China.

From 2000 to 2009 China's exports increased nearly fivefold to US\$1.2 trillion with its world share rising from 3.9% to 9.7%. It has significant production in a wide range of industries: labour-intensive assembly (e.g. textiles, apparel, furniture), heavy industry (e.g. ships) and high tech (e.g. telecoms equipment, computers).

The 2012 CIA World [Factbook](#) shows GDP by sector of origin by world country. According to its methodology, industry represents approximately 30% of GDP in Germany, 24% in Italy, 19% in France and 21% in the UK, with an overall EU figure of 25%. This can be compared to 45% in China and 18% in India.



Rationale for reshoring

Most countries want to have a strong manufacturing sector. Reasons include:

- Job creation, including the creation of supporting jobs in the economy: a US study estimated 2.5 jobs for each manufacturing worker.
- Generally higher pay than the service sector
- The tendency for manufacturing firms to spend more on research and development, with its potential generation of key innovation and intellectual property, and its high-value jobs
- Potential for exports and reduced imports

By 2002-03, about a quarter to half of manufacturing companies in **Western Europe** were involved in offshore production.

The **US** currently has around 12 million manufacturing employees, down from a level of around 17-18 million from the mid-1960s through to 2000.

The manufacturing sector today provides 32 million direct and 20 million indirect jobs in Europe, [according](#) to BusinessEurope, representing Europe's businesses.

In an April 2012 [survey](#) of American manufacturing companies by the Boston Consulting Group (BCG), a global management consulting firm, 37% of those with annual sales above US\$1 billion said they were planning or actively considering shifting production facilities from China to America. BCG has identified the following reasons for companies considering a shift in their operations back to the US:

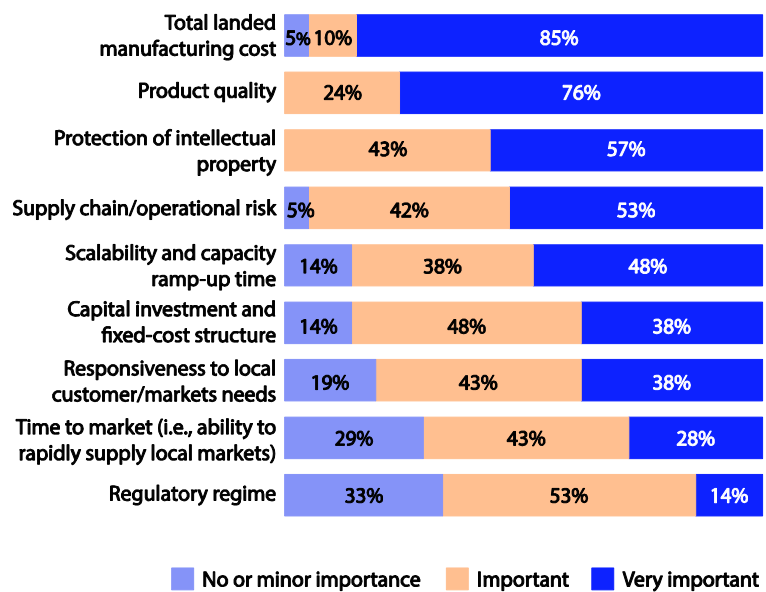
- Labour costs (57%)
- Product quality (41%)
- Ease of doing business (29%)
- Proximity to customers (28%)

Most likely products

Certain products are more likely to be reshored:

- Heavy machinery / products that are expensive to transport to the end market
- Goods subject to frequent changes in consumer demand, to be closer to the end market
- Products where safety concerns are important

Manufacturing sourcing strategy decision driver



Data source: Supply Chain Optimization Study, Hackett Group, 2012.

The relative importance of individual criteria to decide where to produce varies by industry. Factors like scalability, time to market and the speed of ramping up capacity tend to be more important in dynamic industries with short product life-cycles and high levels of demand variability, e.g. consumer electronics. Less dynamic but highly price-sensitive industries such as furniture manufacturing place importance on total landed cost, which is where China has scored highly.

Cost considerations

Total landed cost is a key measure for the manufacturing sourcing strategy. There are a number of individual cost drivers.

Labour

The International Labour Organisation noted real wages in Asia rising by around 7.5% a year between 2000 and 2008. In China wages are no longer relatively very low, as they were in 2000, because of significant pay rises since then. For the average Chinese factory worker pay and benefits rose by 10% a year between 2000 and 2005, then by 19% a year between 2005 and 2010.

Furthermore, the Chinese government has set a target of 13% for annual increases in the minimum wage until 2015. Alongside stricter labour laws, strikes and disputes are also becoming more frequent. The government has often told factory managers to agree to workers' pay demands. Chinese workers are also less willing to work long hours in boring factory jobs, aided by a shortage of new entrants in the labour market, including less qualified workers. This reflects demographic changes.

Faced with competition, companies and governments in developed countries have adjusted in the meantime. The McKinsey Global Institute noted wages rising by a below-inflation 0.7% per annum in advanced economies in recent years. Also, labour relations have improved, resulting in fewer strikes and/or greater flexibility in working practices. Continuing productivity rises have resulted in lower labour costs per product.

Transport

Oil has roughly tripled in price since 2000. This gives a relative disadvantage to shipping (sea or air) products from China / Asia rather than a local base (and shipping raw commodities and intermediate assemblies into China and then on to the EU).

Other costs

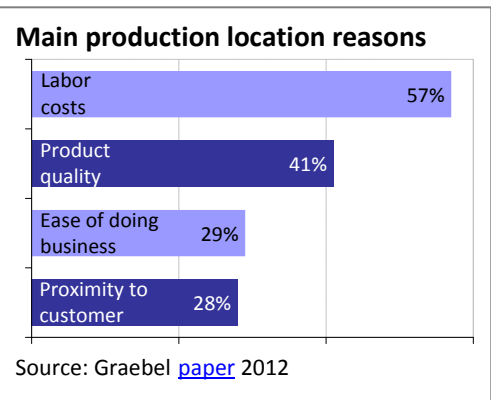
In addition to these more obvious cost elements, there are many additional operational costs related to extended supply chains:

- "Expected": cost of carrying higher inventories due to longer delivery chain, higher costs of returns and inventory obsolescence, higher insurance costs, higher "management" operational travel requirements
- "Unexpected": increased quality control measures (e.g. presence of toxic substances), additional monitoring and training, unanticipated travel requirements, supply disruptions having greater impact due to their length and harsher weather impact (e.g. tropical storms). There can also be higher local legal/ administrative burdens, country trade disputes resulting in punitive fines and instances of intellectual property theft. It is also felt that more successful products can be better designed and improved by having the relevant functions (design, research and development, production, marketing and sales) close to each other.

"Total landed cost" definition

The set of end-to-end supply chain costs to transform raw materials and components into a finished good ready for sale. It includes.

- Raw material and component costs
- Manufacturing costs (fixed and variable)
- Transport and logistics
- Costs of carrying inventory
- Taxes and duties.



Tendencies worldwide

Companies now increasingly divide up their production processes, outsource and locate their activities in many countries to exploit comparative advantages. Their global value chains ([GVC](#)) are complex and changing, and reflect the dynamism required as costs increase, technologies change, and firms reconsider their operations.

Global value chain

The group of activities required to deliver a product or service: design, all stages involved in its production, delivery to the customer and withdrawal at the end of its life.

The GVC will reflect the importance of product production cost balanced by the extra risk of transporting from far away. This may result in alternative and lower-volume production facilities being set up more locally to mitigate the supply risk. Local manufacturing also enables firms to react quickly to market changes, improve customer service, adapt products to local requirements and reduce inventory levels. Additional factors affecting local production are the local markets' size and growth, and technical excellence such as industry sector clusters ("supply ecosystems"), encouraging innovation.

In 2012, Lenovo, a Chinese computer maker, [announced](#) a new manufacturing line in North Carolina to assemble PCs, tablets, workstations and servers to fulfill rapid delivery requirements.

While still cheaper to build things in China, Lenovo's president for North America referred to the offset of higher labour costs by savings on logistics. 115 jobs have been created.

Reliable evidence on the extent of reshoring in the US is scant, but it appears that few companies have returned significant production. Though they may be opening new plants in the US, they are also doing so in China, India etc., and the amount of work sent abroad is more than that brought back. This, however, reflects more the (continuing) trend of production being sited near customers in big new markets.

In the US – and in parts of Europe – there is difficulty in finding suitably skilled labour, reflecting the education system and a loss of specific manufacturing know-how, which has passed to new countries.

Notwithstanding, increasing costs in China mean that manufacturers may look to move to another low-cost country (e.g. Vietnam, Myanmar or Indonesia) or to reshore. However, China has established an effective industrial sector with an excellent supply chain and good infrastructure. Firms that have already set up there, having a huge market on their doorstep, will still have a strong incentive to stay put, allied to the costs of moving and the will of China's government to protect its manufacturing.

Thus, though there may be some rebalancing, reflecting China's maturing, it is considered relatively unlikely that there will be a return to the past situation. Also, with productivity growth in developed nations, greater automation and the rise of robotics, there is significantly less labour demand, so any return to "home" would not reverse the large manufacturing job losses of the past.

Robots, costing the same wherever they are used, already make a difference to the share of labour in total costs. Cheaper, more user-friendly and more dexterous robots are currently spreading into factories around the world.

US output is 2.5 times its 1972 level, with 33% less employment.

Shale gas

The US shale-gas boom has significantly reduced the price of domestic gas. A narrow range of sectors of industry with high gas input uses (e.g. petrochemicals, fertiliser and steel) are returning. However, energy is a relatively small part of costs for most industries.

Nearshoring

Nearshoring means relocating to a country that is closer geographically, in time zone or culturally, but without developed country costs. In North America, Mexico is considered a choice to replace China as Mexican manufacturing costs are now not much higher than Chinese. Also, it has particularly strong industrial sector competence: light vehicle production. Turkey and Morocco are relevant countries for the EU.

Companies from China, now with dense supplier networks and product development capabilities, and other emerging economies may also build factories in the EU. They would follow the likes of Sony and Toyota from Japan, South Koreans (e.g. Samsung) and, almost 100 years ago, American companies e.g. Ford.

Top three reasons for nearshoring

Reason	
Lower freight costs	37%
Speed-to-market	31%
Lower inventory costs	26%

Source: Graebel [paper](#) 2012

EU actions

Though there appear to be few mentions of reshoring, the October 2012 and January 2014 Communications from the European Commission (['A Stronger European Industry for Growth and Economic Recovery'](#) and ['For a European Industrial Renaissance'](#) respectively) seek to reverse manufacturing's declining share of GDP, increasing it from 15% to above 20% after 2020 – where it was 15 years ago. The proactive industrial policy outlined could raise competitiveness, which would aid reshoring.

The Regional Development Committee, in its [opinion](#) on a report by the Industry Committee on reindustrialising Europe to promote competitiveness and sustainability subsequently adopted by the EP on [15 January 2014](#), supported "re-shoring initiatives seeking the re-entry of production and services from third countries", specifically in the context of Europe's traditional industrial heartlands.

The resolution noted that each industrial job creates about two other additional jobs in supply and service sectors, and provides employment for 34 million (one in four jobs).

Main references

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