

# China or There and Back Again: What has Changed in 13 years and does China Still Make Sense?

David Meeker  
Neoteric Product Development

Meeker@mit.edu

This Paper is dedicated to

Memory of Dr. Richard M. Wiesman 1954- 2024

Friend, Mentor, Colleague, a True Mensch



## Abstract

In 2004 N. Dewhurst and D. Meeker wrote paper entitled Improved Product Design Practices Would Make U.S. Manufacturing More Cost Effective: *A Case to Consider Before Outsourcing to China*. In the paper, we examine some of the hidden costs of outsourcing that U.S. manufacturers may not be taking into account. To illustrate our claim that product redesign could be a cost-effective alternative to outsourcing, we offer two case studies that quantify costs associated with manufacturing and assembling products to demonstrate didn't have to go to China for cost savings. In 2011 J. Mortensen and D. Meeker wrote *Outsourcing to China : A Case Study Revisited Seven Years Later*. We believe that our analysis and the previous discussion show that you need to look at all the costs associated with offshore manufacture. Even though many of these costs are not accounted for directly in the product bottom line, you need to understand their magnitude and include them in the analysis when deciding whether

there are benefits to outsourcing. Our results show, albeit in a limited sample, that just blindly outsourcing a product to China for low labor rates is not always a good decision. In 2024 now 13 years since last China paper we will again look at China and see where things stand now.

## China or There and Back Again<sup>1</sup>: What has changed in 13 years and does China Still Make Sense?

Around 500 BC Heraclitus is credited with the quote “the only constant is change”, as many internet scholars have pointed out it is impossible to cite a reference for material allegedly created in 500 BC.

In the last 13 years since 2011 everything in China has changed, population, China political landscape, economic growth, environmental, new market restrictions and controls, and trade export / trade tariffs, but to name a few.

### **Population**

Chinas population is shrinking as a result of the one child policy. The number of births dropped to 9.56 million in 2022 the fewest since 1970. 2023 overall population declined 0.02%. the working age population (age16-59) peaked in 2011, by 2035 30% of the population will be 60 years or older. As of 2021 China still has a large labor pool of around 791 million, however it is shrinking and aging.

All these factors especially the size and age of the labor force have a profound impact on economic growth, labor shortages, high labor cost, slowing economic growth, and significant economic structural shifts with changing demographic, ie; housing, retirement, and health care.

### **Restrictive Business Practices**

China has implemented various restrictive business practices and regulations that can pose challenges for foreign companies operating in the country. Here are some key points: Restrictive Agreements and Practices.

---

<sup>1</sup> In a 1955 letter to W. H. Auden, Tolkien recollects that he began work on *The Hobbit* one day early in the 1930s, when he was marking School Certificate papers. He found a blank page. Suddenly inspired, he wrote the words, "In a hole in the ground there lived a hobbit." By late 1932 he had finished the story. The sub title There and Back Again was to let you know that the events had truly taken place and the author had lived to report on them.....

- Chinese competition law prohibits competing entities from entering into monopoly agreements that fix prices, restrict production, divide markets, boycott transactions, or restrict new technology development.<sup>2</sup>
- Entities are also prohibited from entering agreements with trading parties that restrict the free flow of goods or technology. (Chen 2021)

#### Restrictions on Foreign Investment

- China maintains a negative list that restricts or prohibits foreign investment in certain industries deemed sensitive, such as telecommunications and internet services.
- Foreign investors face ownership restrictions in various sectors, such as a 50% cap on foreign ownership in value-added telecom enterprises. (Chen 2021)

#### Unreliable Entity List

- In 2020, China introduced the Unreliable Entity List (UEL) provisions, allowing the government to sanction foreign entities deemed to endanger China's national interests.<sup>3</sup> (Chen 2021)
- Potential sanctions include restricting imports/exports, investment, entry of personnel, revoking work permits, and imposing fines. (Chen 2021) UK, Gov 2022)

#### Export Controls and Restricted Parties

- China's Export Control Law, effective since 2020, implements export controls over dual-use, military, and nuclear items.
- The law allows the government to establish a list of restricted foreign persons who violate end-use restrictions or endanger national security, prohibiting transactions with them. (Chen 2021)

#### Data and Cybersecurity Regulations

- China has implemented various data security and cybersecurity laws that restrict cross-border data flows and impose localization requirements, making it challenging for foreign companies to transfer data out of China.<sup>4</sup>
- Foreign companies face the risk of having to provide data and intellectual property to Chinese authorities under broad national security provisions. (Gypson 2023)

China's restrictive business practices aim to protect domestic industries, maintain control over sensitive sectors, and safeguard national security interests, and obtain access to IP and technology all to further China's goals at the expense of foreign countries.

---

<sup>2</sup> [Doing Business in China: Overview | Practical Law \(westlaw.com\)](#)

<sup>3</sup> [Overseas business risk: China - GOV.UK \(www.gov.uk\)](#)

<sup>4</sup> [US Lawmakers Say China Using Coercive Business Practices for Economic Advantage \(voanews.com\)](#)

## China Political Landscape

Xi Jinpings rise to power over the last 13 years has been by steady consolidation of authority and influence over the Chinese Communist Part (CCP).

- In 2012, Xi succeeded Hu Jintao as General Secretary of the CCP, becoming the paramount leader of China.
- In 2013, he was elected as President of China by the National People's Congress.
- From 2012 onwards, Xi launched an extensive anti-corruption campaign that purged many officials deemed disloyal or ineffective, allowing him to fill vacant positions with allies.
- He tightened control over the military through sweeping reforms starting in 2015, and brought the domestic security apparatus under his influence.
- In 2017, the CCP constitution was amended to enshrine "Xi Jinping Thought", elevating his ideological contributions to the level of Mao Zedong and Deng Xiaoping.
- In 2018, term limits on the presidency were abolished, removing a potential obstacle for Xi to rule for life.
- In 2021, the CCP passed a historical resolution praising Xi's leadership and accomplishments, further cementing his authority.
- In 2022, Xi secured an unprecedented third term as General Secretary, and the new Politburo Standing Committee was filled with his loyalists.
- In March 2023, he secured an unprecedented third term as CCP General Secretary at the 20th Party Congress, cementing his status as China's most powerful leader since Mao Zedong.
- As of 2024, Xi Jinping remains firmly entrenched as China's preeminent leader, holding all major positions of power and shaping both domestic and foreign policy directions for the world's second largest economy.

Xi Jinping continues to tighten grip on Hong Kong, insist that Taiwan is part of China, claims that 90% of south China sea belongs to China. Has seized islands and shoal international waters and turned them into military bases, and threatens international shipping

## Environmental

### Air Pollution

- China has some of the worst air pollution levels in the world, primarily due to its heavy reliance on coal for energy production and rapid industrialization.
- In 2021, no Chinese city met the World Health Organization's air quality standards, with some cities recording PM2.5 levels over 20 times the recommended limit.

- Air pollution is estimated to cause 1.2 million premature deaths annually in China.<sup>56</sup>

#### Water Pollution and Scarcity

- Around 90% of China's groundwater is contaminated, and nearly half the population lacks access to safe drinking water.
- Industrial waste, agricultural runoff, and household sewage have polluted over 75% of urban water sources, rendering them unfit for human use.
- China has only 7% of the world's freshwater resources but 20% of the global population, leading to severe water shortages in many regions. (Igini 2024) (Maizland 2021)

#### Climate Change Contributions

- China is the world's largest emitter of greenhouse gases, accounting for around 33% of global emissions in 2021.
- While China has pledged to achieve carbon neutrality by 2060 and invest in renewable energy, it remains heavily reliant on coal and continues to finance coal-fired power plants abroad through its Belt and Road Initiative. (Igini 2024) (Maizland 2021)

#### Supply Chain Environmental Impact

- Michel Roger from Accenture confirms:  
“Given that over 60% of carbon emissions are generated by supply chains, the need to rethink where we manufacture and how we transport goods to consumption locations has to be at the center of driving a more sustainable future”<sup>7</sup>

These environmental issues are crucial for China's sustainable development, public health, and global environmental stewardship. The Chinese government has implemented policies and initiatives to tackle these challenges, but significant efforts are still required to mitigate the severe environmental degradation that is taking place on a global

---

<sup>5</sup> [5 Environmental Issues in China in 2024 | Earth.Org](#)

<sup>6</sup> [China's Fight Against Climate Change and Environmental Degradation | Council on Foreign Relations \(cfr.org\)](#)

<sup>7</sup> <https://www.forbes.com/sites/sap/2022/12/15/2023-supply-chain-predictions-resiliency-sustainability-and-visibility-set-new-expectations/?sh=62109ac752cd>

## Trade export / Trade tariffs

For decades China has move methodically to globally dominate world industries such as semiconductors, appliances, solar panels, EV, batteries, and lots of other commodities. China now produces a third of the worlds manufactured goods – more than the United States, Germany, Japan, South Korea, and Britian combined. Its trade surplus is equal to a tenth of the entire Chinese economy.<sup>8</sup> China's exports rose at quickest rate since May of 2023 – 7.6%. China is rapidly building new factories and expanding new ones as part of national strategy of exporting surplus, which is helping to lift the economy despite a slowdown in the very troubled housing market.<sup>9</sup> The European Union is also putting tariff on EV's acknowledging the China is dumping its state subsidized factory over capacity on the EU,<sup>10</sup>

All of former President trumps tariff increases remain in effect and recently President Biden announced increase taxes on Chinese imports and strategic industries.<sup>11</sup> Home land security recently bans imports from three Chinese companies in seafood, aluminum and footwear with ties to forced minority labor.<sup>12</sup>

## Summary

In the final analysis in 2004 using DFMA tools reduced the cost of design substantially didn't need to go overseas to get cost saving, which came with lots of other risks. In 2011 our analysis and the previous discussion show that you need to look at all the costs associated with offshore manufacture. Even though many of these costs are not accounted for directly in the product bottom line, you need to understand their magnitude and include them in the analysis when deciding whether there are benefits to outsourcing. Our results show, albeit in a limited sample, that just blindly outsourcing a product to China for low labor rates is not always a good decision.

In 2024 time has amplified many of the issues of labor cost. shipping cost (boat & air), environmental impacts, tariffs, quality/technology advantage, now add to these supply chain resilience, and geopolitical risk which is becoming more and more real every day.

Sourcing in China for the piece part price no longer makes any sense. The follow-on thought is maybe it is time to think about reshoring.

---

<sup>8</sup> How China Rose to Lead the World in Cars and Solar Panels, Keith Bradsher NY Times May 14,2024

<sup>9</sup> Cina Exports Surge as Trade Tensions Near Boiling Point Keith Bradsher NY Times June 7, 2024

<sup>10</sup> Eu Targets China Ev's for Tariffs despite Opposition W. Boston & K. Mackrael WSj June 13, 2024  
page 1

<sup>11</sup> Biden Hits Chinese Electric Vehicles, Chips and Other Goods with Higher Tariffs, J.Tankersley & A. Rappeport NY Times May 14, 2024

<sup>12</sup> U.S. bans Imports from 3 Chinese Companies over ties to Forced Labor, Ana Swanson NY Times June 11, 2024

Harry Moser ([Harry.Moser@reshorenw.org](mailto:Harry.Moser@reshorenw.org)) has lots of experience at this and can help you. He can be reached at 847-867-1144. More importantly the Total Cost of Ownership Estimator® (TCO) can be found here to help you make better informed sourcing decisions. [Total Cost of Ownership Estimator | Reshoring Initiative \(reshorenw.org\)](#)