China’s Rise and the Impact on Global Business: Some Understandings and Misunderstandings

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Which China?

• China's much-touted economic growth and competitiveness in the international marketplace has inspired admiration and apprehension.

• Seen from an international perspective, China's export economy appears to be a hypercompetitive juggernaut, making its mark in industry after industry, ready to roll over everything in its path.

• But Mainland Chinese firms face some significant competitive and structural problems that temper the “juggernaut” assessment.
China has replaced America as the world’s largest exporter of IT goods

In 2003, at the United Nation's World Summit on the Information Society, huge banner advertisements lining the streets of Geneva were emblazoned with the names of Nokia and Hewlett-Packard. This November, at the second phase of the summit in Tunis, the banners flagged the names of Huawei and ZTE, China’s telecoms-equipment powerhouses, while the PCs at the event bore the brand name Great Wall.

This week the anecdote was backed up by numbers. China for the first time has surpassed America to export the most technology wares around the world, according to new figures from the Organisation for Economic Co-operation and Development. The crossover took place last year, when China exported $180 billion of computers, mobile phones and other digital stuff, exceeding America’s international sales of $149 billion. A year earlier, in 2003, China’s technology exports had overtaken those of both the European Union and Japan.

Given China’s importance as a centre of low-cost manufacturing, its rise as an industrial power in technology goods is hardly surprising. What is startling is the speed of its ascent. From $36 billion in 1996, its world trade in tech goods—both imports and exports—has grown as much as 32% a year, to reach $329 billion in 2004.

China’s rising share of the market has been matched by a fall in the dominance of America—which invented the electronic computer and transistor that launched the digital era. Almost all big IT firms have welded China into their supply chain. In that light, the sale of

IBM’s PC division to the Chinese computer-maker Lenovo, which made headlines a year ago this month, made perfect sense.

China is now the biggest IT exporter to America, having overtaken Japan in 2004. It accounts for 27% of all American IT imports (from 10% in 2000), which last year generated a trade surplus of $34 billion. For the moment, China’s edge is in the low-end work: it imports components, fits them together and exports finished goods. But, after the second world war, Japan also started this way—before moving from low-wage labour to more advanced work, in many instances by capitalising on technological breakthroughs that came originally from America. China is also striving to imitate the Japanese model in another way, by working on its own technology for the next phase of development. But that is more an aspiration than a reality—at least for the moment.
Macroeconomic Rise of China

- One of the most successful growth stories in history
- Fast and sustained GDP growth
- More than 200 million people lifted above absolute poverty in the 1980s and 1990s–
- A substantial buildup of manufacturing capacity and export prowess across a range of industries and technologies
Macroeconomic Rise (or return) of China

ASIA'S SHARE IN WORLD GDP
(at PPP)

Source: Angus Maddison
Macroeconomic Rise of China

• Worlds third largest trader,
• Second largest economy in PPP GDP,
• Largest recipient of foreign direct investment,
• China has over a trillion U.S. dollars in foreign reserves
• Annual real GDP has grown about 9% per year since 1978 – an aggregate increase of over 720% as of 2006.
Macroeconomic Rise of China

Source: Goldman Sachs

GDP PER HEAD AT MARKET PRICES ($s)

2000 2010 2020 2030 2040 2050

China  India  Germany  Japan  UK  US
Annual FDI Inflows - China Vs. India

Source: UNCTAD  
*Estimate  †Based on first three quarters
CHINA’S TRADE SURPLUS

Billions USD

Source: China Customs.
A Different Story on the Microeconomic and Organizational Side -- Putting China’s Competitiveness in Perspective

• China 57th out of 116 nations in business competitiveness-12 places behind Ghana and 26 places behind India and
• 49th in growth competitiveness (just behind Jordan and Botswana).

China is still a lower income country, with a per capita income similar to those of Egypt, Syria and Paraguay. Mexico is more than double China’s per capita income (about $9000) with U.S. at about $34,000.

--World Economic Forum, 2005
A Different Story on the Microeconomic Side

- Lenovo, CNOOC, and Haier: The arrival of Chinese multinational enterprise?
- Is China today where Japan was in the early 1980s?
Microeconomic side – Chinese Private Sector Firms Lack Depth

- Out of 3.4 million private firms:
  - Low overseas presence. Today mostly in resources; Huawei, Lenovo and Galanz are exceptions.
  - Recently, only about 2-3% have overseas investments
  - Just 0.3% of these private firms have investment assets US $1 million dollars or more.
  - Most profitable ones in China are least likely to invest abroad and be in real estate.

- Size of employment
  - Average firm employment in 2003: 14 persons (down considerably from early 1990s)
  - Very few large firms in private sector:

Source: Huang, Yasheng. 2008. Capitalism with Chinese Characteristics
Microeconomic side – China and Japan

• Comparing China with Japan of early 1980s
A story of two ratios of foreign direct investment (FDI)
  – Japan (1981): About 26 times outward FDI over its inward FDI.
  – China (2004): About 34 times inward FDI over its outward FDI.
China is not Japan

• China is much different from Japan on many business and economic measures

• China outward FDI footprint is quite faint, except for recent moves by resources firms.

• Japan: Economic miracle, “lean production”, “Toyota way” all created by domestic Japanese firms

• China: How foreign firms operate in China rather than how domestic firms operating abroad

• – Not Haier way
Which China-Developing Country?

From within China the picture is that of a very solid developmental story, but a developing economy nevertheless, which needs to improve its competitiveness and institutions if it is to provide its people the standard of living to which they aspire.

• The Morale:

Everyone calm down  -- Robert Sutter, Georgetown University
How to reconcile these conflicting views of China’s competitiveness?

I. Exports and FDI / Value-added
II. China’s Management Challenges
III. China’s Industrial Organization and Global Brands
I. Export and FDI / Value-added: Two Broad Characteristics of China's economy in the key areas of exports and FDI help us to resolve the seeming contradiction associated with China's competitiveness:

1) The (actual) size and type of China's exports including the role of foreign-invested enterprises (FIEs).

2) China's role in the pan-Asian production and export system (key word: final assembly).

In addition, we will explore other managerial problems, following Clayton Christensen’s admonition to 'look below the government figures and company financial reports to lower levels of analysis.'
1) The (actual) size and type of China's exports

- China was the world's third leading exporter in 2004 with a world export share of slightly over 6%.
- In 2006, its share stood at around 8% but lower than Germany and the U.S.
- But the type of China's exports get much more attention from people (especially from the protesters) as they are more “available” in cognitive terms.
- China's exports are concentrated in a limited number of highly visible and/or politically sensitive, labor-intensive consumer goods, such as electronics, electrical equipment, home appliances, garments, textiles and footwear.
## Table 1-1

Chinese global market shares of selected industries, 2005

<table>
<thead>
<tr>
<th>Product</th>
<th>Global market share of Chinese production (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television sets</td>
<td>40</td>
</tr>
<tr>
<td>Air conditioners</td>
<td>50</td>
</tr>
<tr>
<td>Refrigerators</td>
<td>30</td>
</tr>
<tr>
<td>Microwave ovens</td>
<td>51</td>
</tr>
<tr>
<td>Digital cameras</td>
<td>&gt;50</td>
</tr>
<tr>
<td>Mobile phones</td>
<td>37</td>
</tr>
<tr>
<td>Marine containers</td>
<td>70</td>
</tr>
<tr>
<td>Ties</td>
<td>40</td>
</tr>
<tr>
<td>Toys</td>
<td>60</td>
</tr>
<tr>
<td>Lighters</td>
<td>70</td>
</tr>
<tr>
<td>Cranes</td>
<td>50</td>
</tr>
<tr>
<td>Sewing machines</td>
<td>70</td>
</tr>
<tr>
<td>Personal computers</td>
<td>35</td>
</tr>
</tbody>
</table>

*Note this table does not say who actually owns the exports and the technology*

Foreign-invested Enterprises in China's Economy – A Closer Look

- Despite China's strong position in several industrial (raw materials) sectors and in final assembly, very few Chinese firms themselves are internationally recognized or competitive.
- Nearly 60% of China's exports are produced by foreign-invested enterprises (Enright, 2005).
- For advanced industrial exports, foreign funded enterprises account for an even larger share of exports from China – ranging from about 75%-90% depending on the industry. And that trend is upward.
- Generally, the FIEs do their research, development, design, component production, marketing, sales, logistics and distribution outside of China.
The aggregate transition of the *Chinese economy as a whole* from net importer of technology-intensive goods to net exporter is likely to take many decades.

- Some individual Chinese firms are likely to emerge as important players in technology-intensive industries through the development of proprietary technologies.
- However, the aggregate transition of the *Chinese economy as a whole* from net importer of technology-intensive goods to net exporter is likely to take many decades.
- China is building indigenous technology and brand names much more slowly than Korea and Japan did.
To further understand how raw export figures overstate Chinese firm competitiveness, consider Foreign-invested Enterprises’ Role in Export

- Industrial Machinery
- Computers, computer components and peripherals
- Electronics and telecommunications equipment
Overall Exports of high-tech products from China by Foreign-invested Enterprises and all organizations

Share of high-technology exports by foreign-owned companies (FIEs) has recently gone a bit higher

- OECD (2008b) finds that the share of high-technology exports by FIEs, including joint ventures and firms controlled from Hong Kong, Macao, and Taiwan, account for a growing share of total high-technology exports.

- These rose from 73% in 1998 to 84.6% in 2002, to 88% in 2005, with the trend maintaining (Redding & Witt, 2009).

- Although these firms are still in China / Greater China, a key point is they are benefiting from much different financial and institutional structures in those economies.
The dominance of foreign firms in these sectors is confirmed by firm level data on China’s largest exporters.

- In 2003 Hong Fu Jin Precision Industry, a wholly-owned subsidiary of Taiwan’s Hon Hai Precision Industry Company (better known by its trade name Foxconn, with exports of $6.4 billion), was China’s number one ranked export company for the third successive year. Hon Hai Precision Industry is Taiwan's largest contract electronics manufacturer, making videogame consoles, mobile phones, and other electronics products for Sony, Apple, Nokia, and others.

- Coming in second was Tech Front (Shanghai) a subsidiary of Taiwan's Quanta Computer Inc., the world's largest producer of notebook computers. Quanta is the single largest supplier for Dell Computer Company. Tech Front's exports in 2003 were $5.2 billion.

- Rounding off the top three exporting firms in China, with exports of $3.1 billion, was Magnificent Brightness, owned by Taiwan's Asutek Computer, another global heavyweight in the production of notebook computers. In all there are 28 Taiwan-owned firms on the list of China’s 200 largest exporting firms in 2003. All are electronics manufacturers.

Industrial Machinery Exports from China – 1993
--Source for the following charts: Gilboy (2004)

1993: $4.2 billion

Source: Customs General Administration, People’s Republic of China
Industrial Machinery Exports from China - 2003

2003: $83 billion

SOE = state-owned enterprises
Collectives

FFE = foreign-funded enterprises
WOFE = wholly owned foreign enterprises
JV = joint ventures
Coproduction

SOURCE: Customs General Administration, People's Republic of China
Computers, Components, and Peripherals
Exports from China - 1993

1993: $0.7 billion

- WOFE = wholly owned foreign enterprises
- JV = joint ventures
- SOE = state-owned enterprises
- Coproduction

FFE = foreign-funded enterprises
Collectives

Source: Customs General Administration, People's Republic of China
Computers, Components, and Peripherals
Exports from China - 2003

SOE = state-owned enterprises
Collectives

FFE = foreign-funded enterprises

WOFE = wholly owned foreign enterprises
JV = joint ventures
Coproduction

Coproduction 3%
Private 1%
Collective 1%
JV 15%

WOFE 75%

2003: $41 billion

Source: Customs General Administration, People's Republic of China
Electronics and Telecommunications Equipments Exports from China - 1993

1993: $12.3 billion

- SOE 54%
- WOFE 15%
- JV 23%
- Coproduction 7%
- Collective 1%

FFE = foreign-funded enterprises
WOFE = wholly owned foreign enterprises
JV = joint ventures
Coproduction
SOE = state-owned enterprises
Collectives

Source: Customs General Administration, People's Republic of China
Electronics and Telecommunications Equipments Exports from China - 2003

2003: $89 billion

SOE = state-owned enterprises
Collectives

FFE = foreign-funded enterprises

WOFE = wholly owned foreign enterprises
JV = joint ventures
Coproduction

Coproduction 3%
Private 5%
Collective 3%
WOFE 43%
SOE 18%
JV 28%

SOURCE: Customs General Administration, People's Republic of China
2) China's role in the pan-Asian production system and value-add also help to explain more about the export and FDI data – key word here is ‘final assembly’

The ubiquitous "Made in China" labels attached to Chinese exports obscure the fact that most of the components of the assembled product often come from other (often Asian) countries.

China has emerged as the last stop in a multi-stage pan-Asian production system that has become one of the most important features of global manufacturing.

Since the 1990s, various organizations situated in China have been importing advanced components from Japan and South Korea; other components from Hong Kong, South Korea, Taiwan and Singapore; and still other components and subassemblies from other Southeast Asian countries.
The Production of “China goods” is Pan-Asian

- Generally, subassemblies are imported by China, assembled and then exported to the U.S. and to other advanced economies.

- Because export values are recorded according to the value of the finished goods, rather than in value-added terms (i.e. by subtracting out the component costs from the finished goods), China aggregates the trade surplus of much of East Asia with the U.S. and Western Europe and thus China gets ‘credit’ for a much higher level of exports that it should.

- China runs a (recorded) trade surplus with the West but a trade deficit with the rest of Asia (as of 2007).

- China's industrial role as a processor of inputs from other places accounts for the relatively low value-added (only on the order of 15% to 25% of final output-export dollar value) in most of China's export industries.
Example: a Barbie doll

For a Barbie doll that retails in the U.S. for about $10, the export value (cost) as shipped from China stands at $2 (the other $8 goes to distribution cost/profits, and retailing).

Of that $2 export value, the raw materials from the Middle East, and components from Taiwan and Texas made with Japanese technology, and US licensing and packaging total $1.65 while the Chinese manufacturer gets only $0.35 – about 15% of the export value and out of the $10 retail price about 3.5%.

--Min Chen (2005)
The value of a $120 Hugo Boss shirt

Consider a $120 Hugo Boss shirt sold on Fifth Avenue in New York.

Chinese factories contribute about 10 percent of the total price (about $12) while distribution channels, brand owners and designers respectively claim 60 and 30 percent.
China Production

- One concern around East Asia is that China that already has displaced much of East Asia in final assembly manufacturing and may displace it in components, subassemblies and other and inputs as well, but so far that is not happening as higher value added is staying in Taiwan, Korea, Singapore and other places for the most part.

- So China’s trade surplus with western countries is not the key issue but which firms and countries can do component manufacturing (and supply other key inputs like machine tools, robots, and technical know-how).
Falling domestic content of exports

Chart 2: ... and the falling domestic content

Source: CEIC, UBS estimates
How is China Doing on Innovation? 
The Smiley Curve

**THE STAN SHIH SMILE CURVE**

- Concept/R&D
- Branding
- Design
- Manufacturing
- Marketing
- Distribution
- Sales/After Service

Under this model manufacturing is the lowest value input
China’s manufacturing dominance? Broad or narrow?

China, in absolute terms, is far from a real world “factory.” Recent data from early 21st century, showed it generated less than 5 percent of the world's manufactures by value, in contrast to the United States' 20 percent and Japan's 15 percent.
Summary: The Competitive Threat from Mainland China Firms is Overstated

1) Foreign invested enterprises do much exporting and control a steady level of domestic market share, though this varies with industry (domestically). FIEs dominate high technology investment and domestic market share; Lenovo is one exception, though Lenovo is now considered a foreign (Hong Kong and North Carolina) firm.

2) Export strength is exaggerated -- actual net exports may be 15-25% of reported amount because of the way exports are measured (China commonly handles final assembly but gets “credit” for all the subassemblies also, yet China does not do much subassembly work, which would add to that ‘net export level). Of the final retail price, China value-added may be around 3% - 8%

3) Foreign firms tend to capture the ‘high sides’ of the product smiley face (upstream R&D side and downstream service, contact with customer, distribution side).
Is this bad news for China?

• Up until the mid-1980s, Taiwan and Korea looked similar to Mainland China in export patterns (though both spent more on R&D and related technology spending):
  That is, very large net imports of machinery and equipment, a low-end export profile, and little real electronics technology specialization.

• Taiwan and Korea have been able to move upmarket to subassemblies because China took up final assembly and other light manufacturing.

• In terms of many measures, China’s development is quite a bit like Taiwan’s and Korea’s, particularly Taiwan’s (and quite unlike that of Japan)

--Anderson (2006)
II. Management Challenges in China

Management was Japan’s “special sauce” that other countries sought to emulate (Lieberthal & Lieberthal, 2003 in HBR).

China and China management does not have a similar reputation. And a host of problems in management and industrial organization in China that all may hinder innovation, branding, R&D, and building globally competitive organizations, which make business people there ‘think short-term’:

• Change in labor law & Capricious and creative government officials
• Overdiversification
• Problems of Hierarchy
• Lack of Working with Domestic Partners
• Low R&D and commitment to technology development and brand building

One key idea to remember: when you think you have heard ‘them all’ (in terms of management challenges, dealing with government officials, the dominant SOE in the area, or other influential and powerful people), rest assured you have not (and plan accordingly).
Rapidly changing conditions and laws in China business makes business people hesitate about long term investment in technology and branding (vs. say, real estate and financial investment).

“You can’t tell anyone that you are doing well. Factories don’t pay bills too fast, otherwise they look like they are making too much money. We pay our bills slowly so the bigger firms won’t come looking for extra money and the government officials won’t ask for more tax payments.”

– A garment factory owner in Dong Guan (Guangdong Province).
Capricious and creative government officials

“They [a provincial tax official] handed me the tax assessment and said: ‘here’s the official fee, and now here is what your factory should pay.’ What could I do, I didn’t have any allies in his department.”

When the factory owner protested, the official said “I am the law.”

Finally, the factory has been moved to inside of an army base for ‘protection.’

--A luxury goods factory owner
Related issues of ‘managing’ government officials and other influential people

“To minimize the paper trial of the profits and wealth of our firm (and also for many of my friends) [China business owners], we favor cash transactions. But the largest note China has is RMB 100 [about $14], so this will be too many notes to pass around. Thus we and many other people are now transacting in Rolex watches and other luxury goods. So when you hear ‘China is the number one market for luxury goods, there is another [underlying] reason for that.”

--Guangdong based light goods manufacturer
Officials and the ‘guanxi’ manager

There are many officials from various departments that pay our plant regular visits. They come with seven or eight other colleagues with the stated purpose of checking to see if we are complying with their regulations. Of course they will find something wrong if we let them, so we try not to let them. One person in our firm, who is nominally the factory manager, is responsible for maintaining a relationship with these officials. When these people show up at our plant, he will immediately bring them to a nice restaurant for a banquet. There may be some gifts or favors involved as well. They will show up half a dozen times a year, always around 6:00 p.m., expecting this sort of treatment. It is expensive, but the alternative is more costly. And they are only one department. You can expect to get a similar series of visit" from a dozen or more departments and bureaus over the course of a year.

--Ahlstrom, Bruton & Lui (2000)
The recent change in labor law → 1 year of service = 1 month of salary (as severance if fired and not offered a new, better contract).

– Causes factory owners to walk away from factory
– Causes them to look for exits to the property development and management businesses
– Story of locking owner into factory [then “meeting with party boss in town”]
China – The Positives (opportunities)

• China has developed a powerful combination in its coastal provinces: a disciplined, fast-learning, low-cost labor force; a large cadre of technical personnel; good local governance including tax and other incentives to attract investment.

• Good ready-made buildings and infrastructure facilitate quick set-up and easy import/export of most components and finished goods.

• Top management is usually quite flexible and willing to grab new entrepreneurial opportunities.
Chinese factories can respond quickly to a new product request

• Chinese factories can respond quickly, and not simply because of 12-hour workdays. In most places you'd have to import different raw materials and components.
• In China you've got nine different suppliers within a couple of kilometers, and they can bring a sample over that afternoon.
• Li and Fung example and putting together a shirt for JC Penneys.
• People think China is cheap, but really, it is fast.
Retooling and Retraining

• Moreover, the Chinese factories use more human labor, and fewer expensive robots or assembly machines, than their counterparts in rich countries.
• People are the most adaptable production workers. Machines need to be reprogrammed and factories may need to be retooled.
• But heavy investment in workforce training and a factory can have people doing something entirely different in one week.
• New factories can come up to speed soon – Tommy Lee example and transfer of candy factory from Italy to Shanghai.
Protyping

• You are an American inventor with a product you think has green-potential for household energy savings.
• But you need to get it to market fast, because you think big firms may be trying the same thing, and you need to meet a target retail price of $100 and fast delivery data.
• China can help put a prototype together quickly and gear up a factory and workforce in 2-4 weeks’ time.
Driving Down the Cost of Supply Chains

• Some estimate that 50-80 percent of many products’ cost today is in the supply chain and logistics, and the significant cost savings of the future will come from there (whereas in the past saving came from the production side, especially economies of scale and scope and globalized labor).

• China is at the forefront of supply chain and logistics management.

• If your firm starts emphasizing direct retail sales on your Web site – China can help you do all the shipping and fulfillment from one supply depot, run by young Chinese employees in Shenzhen, who can ship directly to specific retail stores, and sometimes to customers.
China – The Positives (opportunities)

- Insurance and financial services are in their infancy (average per capita spending in China is about $34 per year on life insurance compared to about $1500 in the U.S. and $3000 in Japan. Even less for home and auto insurance.

- Outbound tourism has just gotten going and has already transformed Hong Kong tourism (Mainland China tourists are outstripping other tourists coming to Hong Kong by 2 to 3 times already), and have doubled the local tourist trade in terms of arrivals, demand for hotels, etc. This could start happening to other tourist destinations in the coming years (doubling of tourist arrivals because of Mainland China visitors).

- Like its export base, China’s home market is growing strongly. Four to six million new mobile phone subscribers are signing up every month.

- China has 170 cities with more than 1 million people,
  - 400 million subscribers to wireless phone services
  - Purchases 12% of the world's luxury goods.
  - Retailers, both local and foreign are generally doing well.
Conclusion

China is a developing country very similar in many ways to the East Asian economies (except for Japan) that took off earlier. Mainland Chinese firms are doing well in the resources and primary production areas, and very well in final assembly. China is lagging behind in R&D and related technology spending. Managerial problems including persistent problems with some government officials and other influential individuals in China may be hindering indigenous Chinese firms in their ability to ‘think long term.’

Finally, the central government’s commitment to entrepreneurship and private enterprise is down from the earlier years of the economic reforms, which could prove to be a problem in moving away from the heavy emphasis on foreign direct investment.
Thank you

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