

# China's International Competitiveness: Reassessing the Evidence

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# 1. Introduction

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In recent years, many Western business and political leaders have been voicing their concerns that China's economic rise is threatening our competitiveness. They generally identify two types of threats coming out of China: a quantitative and a qualitative threat. First, there is a *quantitative threat* related to China's stellar export performance. Since 1988, China's exports have grown at an annualized rate of 17 percent, more than twice the rate of growth of world exports. As a result, China's share of world exports has surpassed Japan to become the world's third largest exporter after the United States and Germany. Second, there is a *qualitative threat* as the goods that China exports are becoming more sophisticated. Where fifteen years ago China was primarily an exporter of low-tech products such as apparel, toys and footwear, today it has become the world's largest exporter of electronics products. This has caused concern that China is rapidly moving up the technology ladder and becoming increasingly competitive in areas of comparative advantage for Western economies. These perceived threats have contributed to heightened political tensions between China and the West. In the United States alone, the 109<sup>th</sup> U.S. Congress introduced 27 pieces of anti-China trade legislation. And the current 110<sup>th</sup> U.S. congress introduced over a dozen in just its first three months (Scheve and Slaughter, 2007). Similar tensions are also rising in Europe. According to a recent Economist opinion piece, Europe's next big globalization row will also be over trade with China (Charlemagne, 2007).

The present debate over China's competitiveness is in many respects reminiscent of 1980s worries about Japan's economic rise. In the 1980s, the West was concerned of increasingly competitive Japanese firms that appeared poised to overtake the US as a leader in high-tech sectors such as the electronics and automobile industry. Yet, there is an important difference. In the current situation, China's export rise is not fueled by the rise of Chinese world-class companies, but it is instead fueled by multinational corporations who are offshoring their labor-intensive final assembly plants to coastal China. China's rise as an international assembly base can in large part be attributed to the country's long-standing policies of encouraging "export processing trade." Since China's Opening Up in 1979, China has set up a number of export-processing zones along China's coastal region as a way of attracting foreign investment and technology transfers. As many investors from developed countries including the United States and Japan as well as from the Newly Industrialized Economies (Singapore, the Republic of Korea, Hong Kong and Taiwan) moved their labor-intensive assembly plants to China in a bid to cut production cost, this led to a rapid rise in China's exports.

In this paper, we argue that – in a world where offshoring is prevalent – export data are an inadequate tool to measure a country's international competitiveness. This is because export data do not capture the amount of value added that is created in an exporting country, but rather the gross value of the product exported. We demonstrate how this leads

to an upward bias in both the quantitative and qualitative threat that we perceive coming from China. Finally, we discuss the implications of this biased threat.

## 2. China's Competitive Performance

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Business analysts, governmental reports and the media often use a country's export market share as a measure of its international competitiveness.<sup>1</sup> A country gains international competitiveness if it is able to export products and services at a relatively cheaper price and therefore grab a larger export market share. A country loses international competitiveness if it loses export market share.<sup>2</sup> In this section, we will demonstrate that using this approach to measuring China's international competitiveness provides seemingly compelling evidence that China is rapidly grabbing market share from Western countries (subsection 2.1) and that China is swiftly acquiring a comparative advantage in high technology industries (subsection 2.2).

### 2.1 China's Rising Share of World Exports

In the past decade, China's export performance has been exceptional. Between 1992 and 2005, China's exports have grown at an annualized rate of 18.4 percent, more than twice the rate of growth of world exports. As a result, China's share of world exports has rapidly risen from 2.4 percent in 1992 to 7.7 percent in 2005 (see Table 1). It has surpassed Japan to become the third largest exporter behind the United States and Germany and has recently topped Canada to become the No. 1 seller of goods to the United States. This has fueled the *quantitative fear* in the West that an exponentially growing share of global output is being manufactured in China.

**Table 1: World's Ten Largest Exporters in 2005**

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<sup>1</sup> The concept of national competitiveness remains highly controversial with economists. In his critique on the Clinton administration's flirtation with industrial policy, Krugman (1994) famously argued that "competitiveness is a meaningless word when applied to national economies. And the obsession with competitiveness is both wrong and dangerous." More recently, however, Lall (2001) and Neary (2003) have demonstrated that national competitiveness has a valid economic definition, but that it does not necessarily justify neo-mercantilist policy interventions.

<sup>2</sup> Numerous academic studies have used this method to demonstrate the rise in China's international competitiveness. Adams *et al.* (2006) use the rise in China's share of world exports as one of their key indicators to highlight the rise of China's international competitiveness. Holst and Weiss (2004) have used this approach to demonstrate that ASEAN economies are suffering a substantial and widespread loss of market share in the US and Japanese markets due to the rise of China's exports. Similarly, Lall and Albaladejo (2004) find that China's rise in international competitiveness has primarily threatened the low-technology sectors of its East Asian neighbors.

| Country        | Exports (US\$ million) |           | Export share |        | Growth rate |
|----------------|------------------------|-----------|--------------|--------|-------------|
|                | 1992                   | 2005      | 1992         | 2005   | 1992-2005   |
| Germany        | 429,643                | 976,283   | 12.0%        | 9.9%   | 6.5%        |
| United States  | 448,238                | 898,797   | 12.4%        | 9.1%   | 5.6%        |
| China          | 84,940                 | 761,953   | 2.4%         | 7.7%   | 18.4%       |
| Japan          | 339,500                | 593,520   | 9.5%         | 6.0%   | 4.4%        |
| France         | 231,451                | 434,425   | 6.5%         | 4.4%   | 5.0%        |
| United Kingdom | 190,481                | 384,365   | 5.3%         | 3.9%   | 5.5%        |
| Italy          | 178,349                | 372,324   | 5.0%         | 3.8%   | 5.8%        |
| Canada         | 132,062                | 356,434   | 3.7%         | 3.6%   | 7.9%        |
| Belgium        | 123,131                | 334,106   | 3.4%         | 3.4%   | 8.0%        |
| Netherlands    | 139,919                | 319,889   | 3.9%         | 3.2%   | 6.6%        |
| World          | 3,569,716              | 9,848,878 | 100.0%       | 100.0% | 8.1%        |

Source: WITS

## 2.2 From Textiles to Computers

The rise in China's exports has been uneven across industries. Where fifteen years ago China was primarily an exporter of low-tech products such as apparel, toys and footwear, today it has become the world's largest exporter of electronics products (OECD, 2005). This has led to the *qualitative fear* in the West that China is rapidly moving up the technology ladder and becoming competitive in industries that have traditionally been comparative advantage sectors for Western economies.

We can find evidence of this upgrading trend by disaggregating China's exports according to their technological intensity.<sup>3</sup> As it is illustrated in Table 2, China's export growth is primarily fed by the export growth in the two highest tech categories. Between 1992 and 2005, China's medium-high technology exports grew 22 percent per year, while high technology exports grew an even more impressive 32 percent per year.<sup>4</sup> As a result, more than half of China's exports in 2005 consisted of products from these two highest tech categories.

**Table 2: China's Exports by Technological Level**

|                   | Exports (US\$ mil.) |         | Export share |       | Growth rate | RCA index |      |
|-------------------|---------------------|---------|--------------|-------|-------------|-----------|------|
|                   | 1992                | 2005    | 1992         | 2005  | 1992-2005   | 1992      | 2005 |
| High Tech         | 5,972               | 230,889 | 7.0%         | 30.3% | 32%         | 0.53      | 1.64 |
| Med-high Tech     | 14,053              | 178,568 | 16.5%        | 23.4% | 22%         | 0.42      | 0.67 |
| Med-low Tech      | 16,455              | 144,807 | 19.4%        | 19.0% | 18%         | 1.17      | 1.07 |
| Low Tech          | 36,902              | 178,909 | 43.4%        | 23.5% | 13%         | 2.05      | 1.56 |
| Non-manufacturing | 11,558              | 28,827  | 13.6%        | 3.8%  | 7%          | 1.38      | 0.44 |

<sup>3</sup> In this part, we rely on the OECD's classification of manufacturing sectors into four technological categories: high technology industries, medium-high technology industries, medium-low technology industries and low technology industries (Hatzichronoglou, 1997).

<sup>4</sup> High-technology industries include aerospace, pharmaceuticals, office and computing machinery, radio, TV and communication equipment and medical, precision and optical instruments.

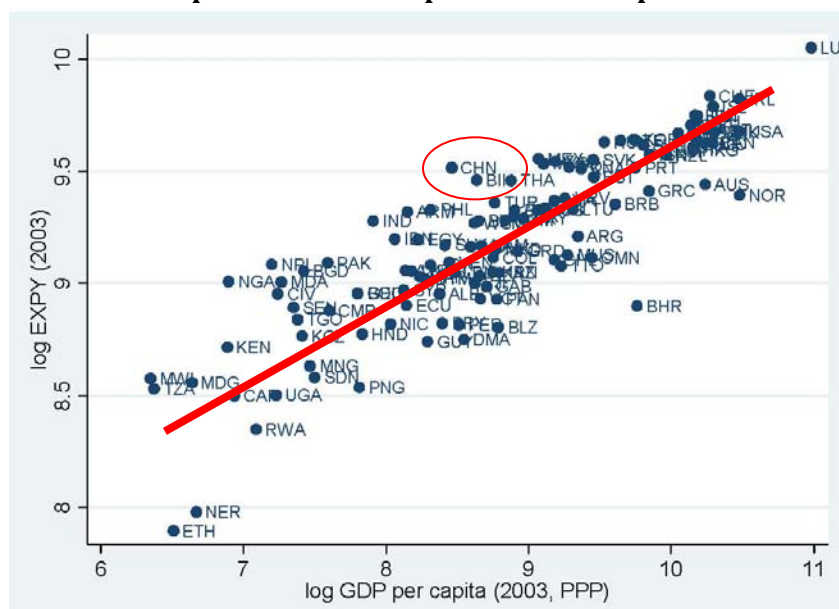
|       |        |         |      |      |     |      |      |
|-------|--------|---------|------|------|-----|------|------|
| Total | 84,940 | 761,999 | 100% | 100% | 18% | 1.00 | 1.00 |
|-------|--------|---------|------|------|-----|------|------|

Source: WITS

The high growth rate of high-technology exports seems to have turned China in a specialized exporter of high-technology products. Revealed comparative advantage (RCA) indices are often used to assess the type of exports that a country specializes in.<sup>5</sup> A value that exceeds unity implies that the country has a greater share of exports in that industry than the rest of the world. As it is illustrated in Table 2, China's RCA index for high-technology products has risen from 0.53 in 1992 to 1.64 in 2005, thus suggesting that China not only has a comparative advantage in low-tech and medium-low-tech products, but also has developed a strong comparative advantage in high-tech products.

This observation has spurred a number of recent academic studies to estimate the degree of sophistication of China's export composition relative to that of other countries. Rodrik (2006), Hausmann et al. (2007) and Schott (2006) all highlight the increasing sophistication of China's exports as demonstrated by an export pattern that more closely resembles high income countries. Specifically, Rodrik (2006) and Hausmann *et al.* (2007) find that the composition of goods that China exports is similar in sophistication to exports of countries with income levels three times higher than that of China (Figure 1). Rodrik (2006) concluded from this analysis that "China has somehow managed to latch on to advanced, high productivity products that one would not normally expect a poor, labor abundant country like China to produce, let alone export."

**Figure 1: Relationship between Per-capita GDP and Sophistication of Exports**



Source: Rodrik (2006), Hausman et al. (2007)

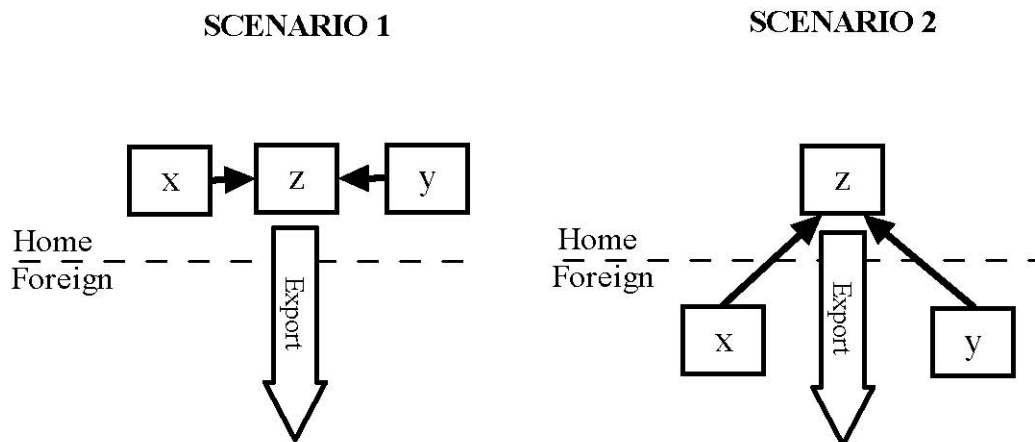
<sup>5</sup> The revealed comparative advantage (RCA) index is generally calculated as an industry *i*'s share of country *c*'s exports divided by its share of world exports (Balassa 1965).

Using a similar logic, Schott (2006) has used Finger and Kreinin's (1979) export similarity index to demonstrate that China's exports are surprisingly similar to the export structure of OECD countries. This has led Schott (2006) to conclude that "China's export bundle increasingly overlaps with that of more developed countries, rendering it more sophisticated than countries with similar endowments."

### 3. Reassessing the Evidence

The large role of assembly offshoring on China's export performance may have significantly biased upward China's estimated international competitiveness. International trade data are generally collected and reported as gross flows rather than as foreign value added, thus making it difficult to attribute the amount of value added that has been created in the exporting country (Grossman and Rossi-Hansberg, 2006). This biases upward particularly the export growth of countries to which final assembly is offshored (Van Assche, 2006; Van Assche and Gangnes, 2007). To illustrate this, consider an export good *z* that is produced through the assembly of inputs *x* and *y*. In Figure 2, we depict two scenarios. In scenario 1, the production of the inputs *x* and *y* and the final assembly of product *z* all occur at home. As a result, 100 percent of the export value is produced at home. In scenario 2, the inputs *x* and *y* are imported from abroad, while only the final assembly occurs at Home. As a result, the export value (often significantly) exceeds the amount of value added that is created at Home. This implies that a country specialized in final good assembly (scenario 2) can have a rapid rise in exports even if its domestic production activities remains unchanged.

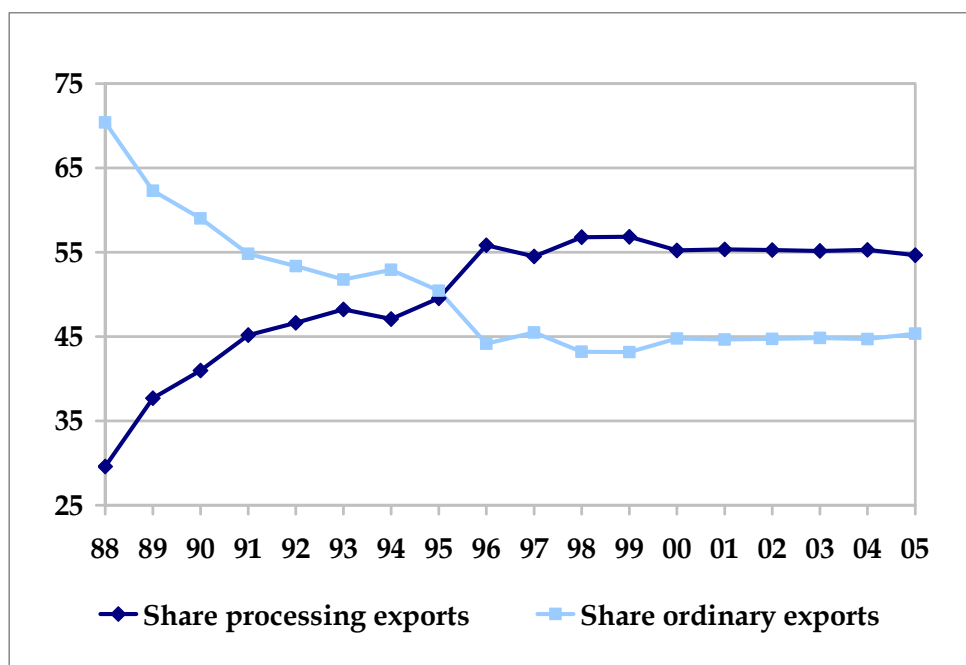
**Figure 2: Problem with Export Data**



## Quantitative Threat

In this Section, we will demonstrate that this problem inherent to trade data has biased upward China's quantitative threat. China's foreign trade expansion in the last few decades is mainly due to a rise in processing exports, i.e. the practice of assembling duty free imported inputs. A large share of China's exports thus corresponds to Scenario 2 in Figure 2. As it is demonstrated in Figure 3, the share of processing exports in China's total exports has risen from 30 percent in 1988 to 55 percent in 2005. In other words, more than half of China's export value corresponds to the assembly of imported inputs.

**Figure 3: Processing Export Share in China's Total Export (1988-2005)**



Source: China Customs Statistics

For these processing exports, a large share of the export value is merely the value of the imported inputs embodied in these exports. Indeed, Table 3 illustrates that barely a third of the value of China's processing exports in 2005 was created within China. The other two thirds is the value of imported inputs embodied in these exports.

**Table 3: Unadjusted versus Adjusted Exports**

| Year | Share of processing export value created domestically (%) <sup>6</sup> | Adjusted Exports <sup>7</sup> (US\$ million) | Unadjusted Exports <sup>8</sup> (US\$ million) | Adjusted exports as a share of unadjusted exports (%) |
|------|--|--|--|---|
|      |  |  |  |   |

<sup>6</sup>  $(\text{Processing exports} - \text{processing imports}) / \text{processing exports}$ .

<sup>7</sup>  $\text{Ordinary exports} + \text{processing exports} - \text{processing imports}$ .

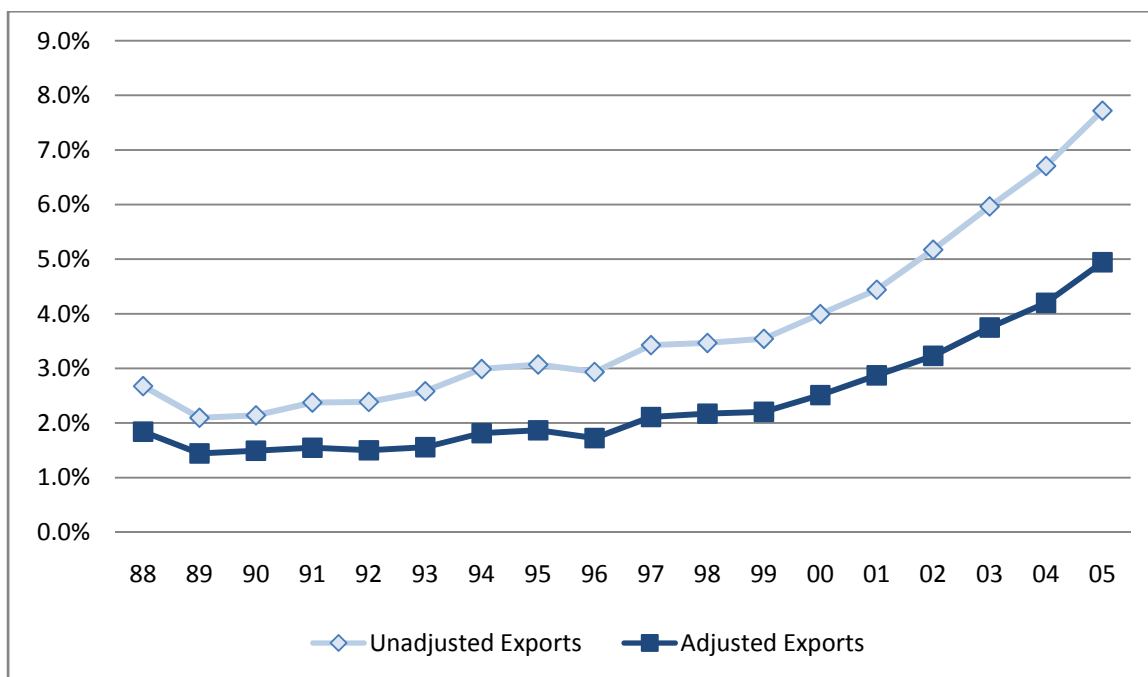
|      |       |         |         |       |
|------|-------|---------|---------|-------|
| 1990 | 26.28 | 43,337  | 62,091  | 69.80 |
| 1995 | 20.83 | 90,421  | 148,780 | 60.77 |
| 2000 | 32.74 | 156,659 | 249,240 | 62.85 |
| 2005 | 34.20 | 487,973 | 761,999 | 64.04 |

Source: China Customs Statistics

If we adjust China’s exports to exclude the value of these imports embodied in processing exports, China’s export value drops significantly. In 2005, for example, the adjusted export value is US\$488 billion compared to an unadjusted export value of US\$762 billion. The data in Table 3 thus suggest that, in the last 15 years, only 60-70 percent of China’s total export value has been produced within China. The remaining one third of China’s total export value is the value of the imported inputs.

The *quantitative threat* of China becomes less large once the role of processing exports is taken into account. In Figure 4, we plot the share of China’s adjusted and unadjusted exports in world exports. As it can be seen, processing exports leads to a large and growing overestimation of China’s world export share. In 2005, China’s adjusted share of world exports is 4.9 percent, which is significantly lower than the 7.7 percent mentioned above. This adjusted share of world trade is only slightly larger than that of France.

**Figure 4: China’s Adjusted Share of World Exports (1988-2005)**



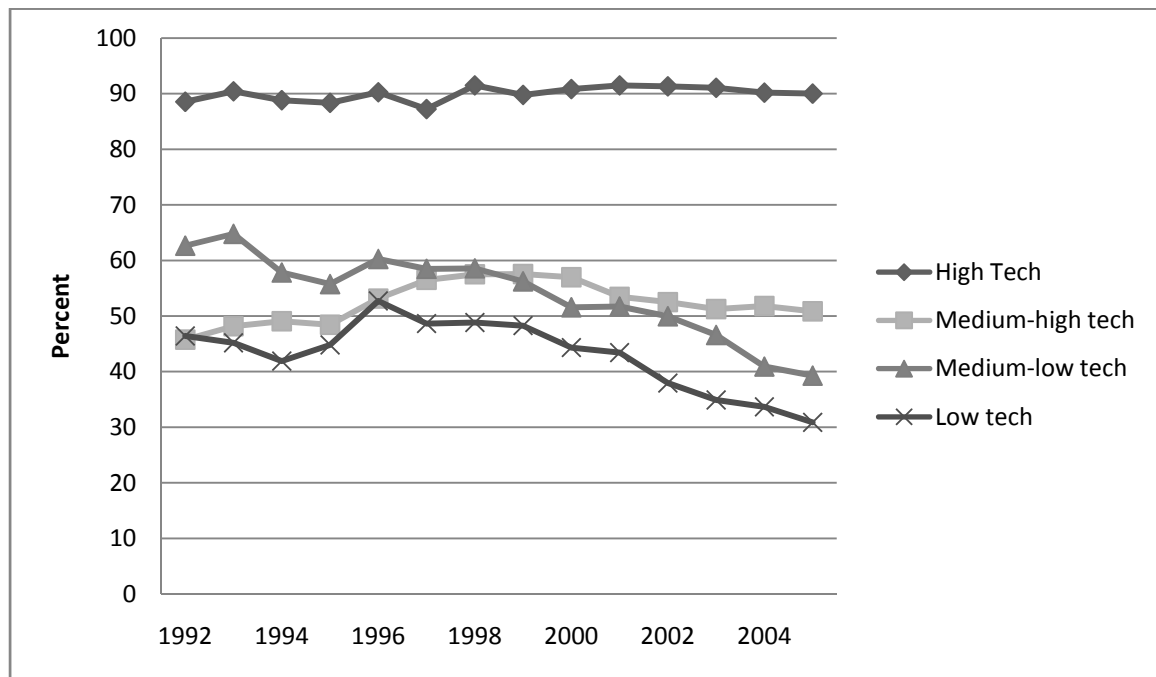
Source: China Customs Statistics

<sup>8</sup> Ordinary exports + processing exports

## Qualitative threat

Processing exports not only biases upward China's *quantitative threat*, but also distorts China's *qualitative threat*. In Figure 5, we depict the share of processing exports in each technological category. As it is illustrated in the Figure, the share of processing exports in total exports is higher in the high technology categories than in the low technology categories. In the high-tech category, it consistently amounts to approximately 90 percent of total high technology exports, whereas in the medium-high tech category it has hovered around 50 percent. In the medium-low and low tech categories, it has dropped to 40 and 30 percent respectively.

**Figure 5: Processing Share in Total Exports by Technological Level (1992-2005)**



Source: China Customs Statistics

The fact that the share of processing exports rises with the technology intensity of the products amplifies the distorted impression that China is gaining a comparative advantage in high-tech industries. Indeed, it implies that the discrepancy between unadjusted exports and adjusted exports is significantly larger in the high-technology sectors than in the low-technology sectors.

If we focus exclusively on the technology intensity of China's ordinary exports, there is little evidence that China is rapidly moving up the technological ladder. Table 4 illustrates that in both 1992 and 2005, the largest share of China's ordinary exports were low-tech products, and the smallest share are high-tech products.

**Table 4: China's Ordinary Exports by Technological Level**

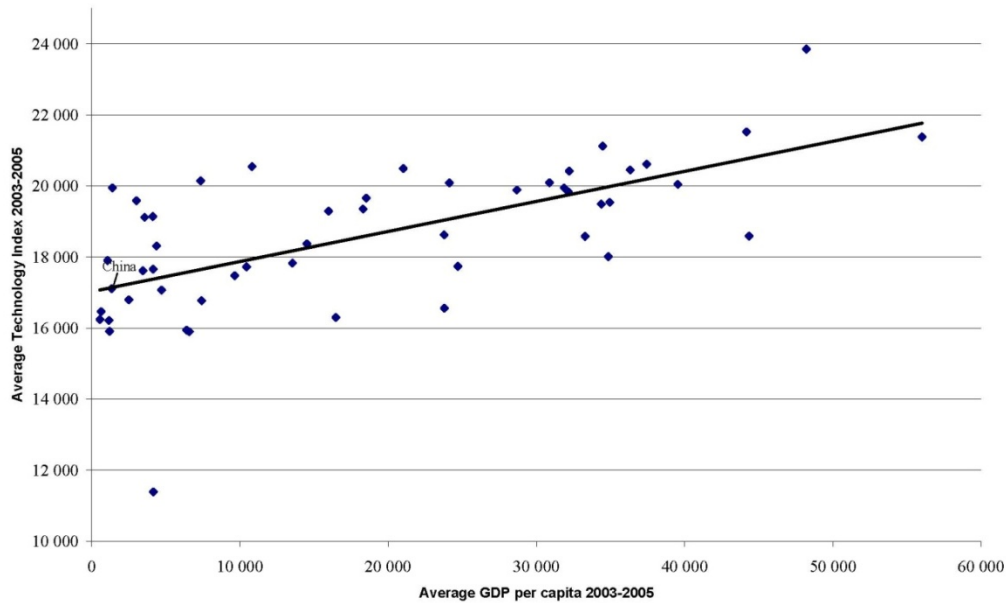
|                   | Ordinary Exports<br>(US\$ mil.) |                | Export share |             | Growth rate | RCA index   |             |
|-------------------|---------------------------------|----------------|--------------|-------------|-------------|-------------|-------------|
|                   | 1992                            | 2005           | 1992         | 2005        | 1992-2005   | 1992        | 2005        |
|                   | High Tech                       | 684            | 23,057       | 1.5%        | 6.7%        | 31%         | 0.10        |
| Med-high Tech     | 7,626                           | 87,773         | 16.8%        | 25.4%       | 21%         | 0.48        | 0.75        |
| Med-low Tech      | 6,147                           | 87,958         | 13.6%        | 25.5%       | 23%         | 0.78        | 1.41        |
| Low Tech          | 19,773                          | 123,704        | 43.6%        | 35.8%       | 15%         | 2.46        | 2.78        |
| Non-manufacturing | 11,102                          | 23,025         | 24.5%        | 8.3%        | 8%          | 1.62        | 0.50        |
| <b>Total</b>      | <b>45,333</b>                   | <b>345,518</b> | <b>100%</b>  | <b>100%</b> | <b>17%</b>  | <b>1.00</b> | <b>1.00</b> |

Source: China Customs Statistics

The RCA indices for ordinary exports are also more in line with our expectations: China in 2005 has a revealed comparative advantage in low-tech and medium-low tech goods and a revealed comparative disadvantage in high-tech and medium-high tech goods.

Our analysis demonstrates that there are significant problems related to using export data to measure the degree of sophistication of a country's production activities. In the case of China, it likely leads to a significant upward bias in China's estimated degree of sophistication. In a recent CIRANO working paper, Van Assche and Gangnes (2007) have used an alternative approach to measure the degree of sophistication of a China's production activities by using electronics production data compiled by Reed Electronics Research. The Reed Electronics Production Data Set (REP) provides for 51 countries the value of domestic electronics production for 13 electronics subcategories between 1992 and 2005. While this data set has the limit that it focuses solely on electronics, it has the benefit that it circumvents the problem with trade data by capturing the type and magnitude of production activities that take place in a country. Van Assche and Gangnes (2007) find that when the same methodology as Rodrik (2006) and Hausmann et al. (2007) is used on the electronics production data set, there is no evidence that China is a positive outlier with production activities similar to that of much richer countries. Rather, they find that China lies dead on the regression line, implying that there is no empirical evidence that China's level of technological sophistication in electronics is higher than one would expect for its level of development (Figure 6).

**Figure 6: Relationship between Per-capita GDP and Sophistication of Electronics Exports (2003-2005)**



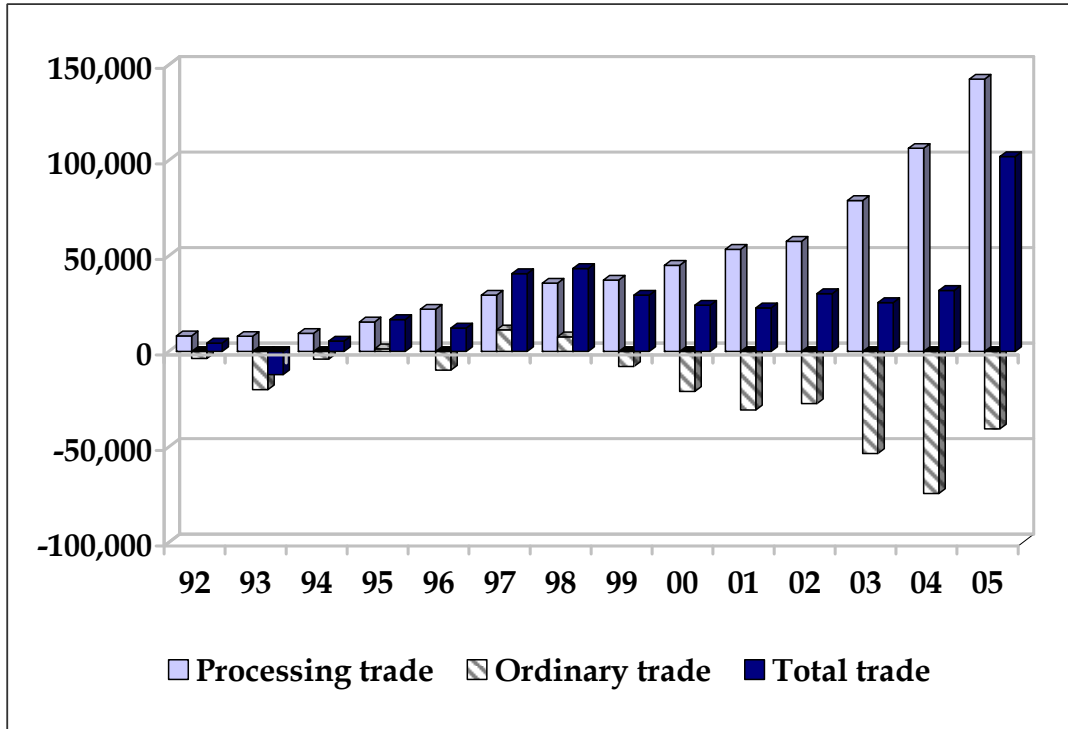
Source: Van Assche and Gangnes (2007)

### China's Rising Trade Surplus

The large role of processing trade in China's export performance is not only relevant for the manifestation of China's international competitiveness, but it also acts upon another politically sensitive issue, i.e. trade (im)balances. Between 1996 and 2006, the U.S. current account deficit has expanded from US\$125 billion to US\$812 billion. Many U.S. policy makers have attributed this trend to the burgeoning bilateral trade deficit that the U.S. has vis-à-vis China. Between 1996 and 2006, the U.S. bilateral trade deficit vis-à-vis China has grown from US\$39.5 billion to US\$232.6 billion.

In Figure 5 we disaggregate China's trade balance into a processing trade balance and an ordinary trade balance. From the figure, it is clear that China's trade surplus against the rest of the world is solely driven by an exponentially growing surplus in processing trade. Indeed, China's ordinary imports have consistently exceeded China's ordinary exports since 1999.

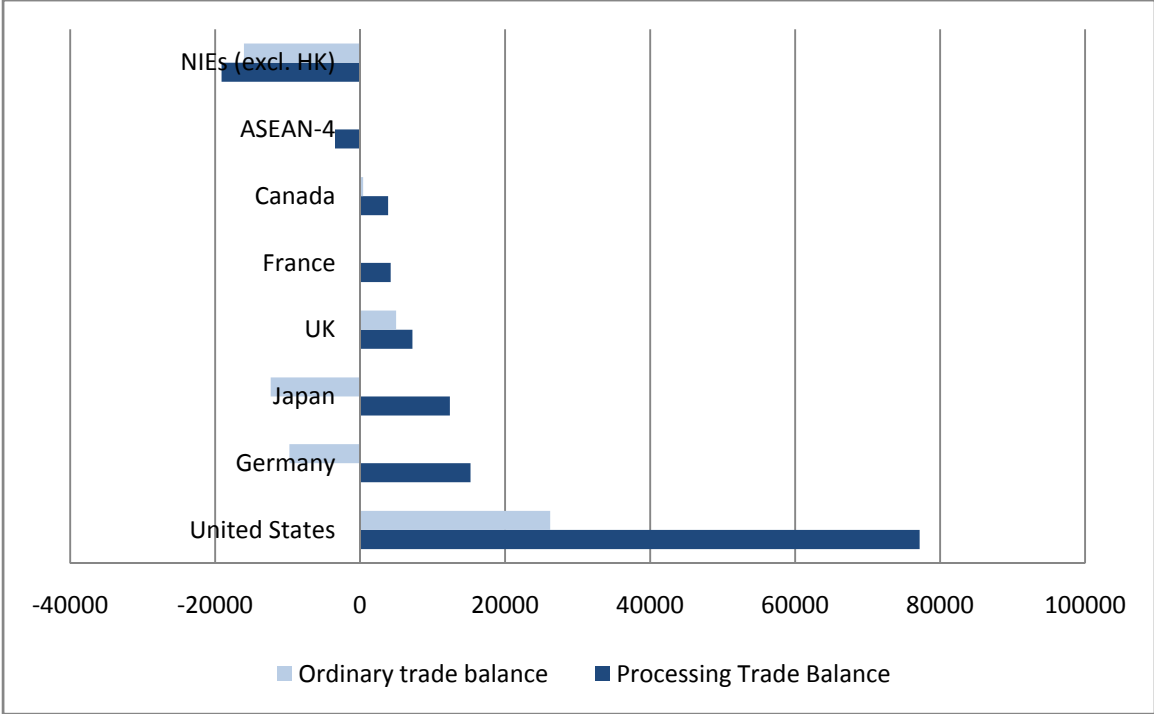
**Figure 5: China's Trade Balance for Processing Trade versus Ordinary Trade, 1992-2005 (US\$ million)**



Source: China Customs Statistics

China’s processing trade surplus is driven by its huge bilateral processing trade surpluses with developed countries. In Figure 6, we depict China’s bilateral trade balances with a number of key Western and Asian countries in 2005. The figure shows that China has a processing trade surplus with the United States, Germany, Japan, the United Kingdom, France and Canada. But its processing imports from the ASEAN-4 (Philippines, Malaysia, Thailand and Indonesia) and the NIEs (South Korea, Taiwan and Singapore) exceeds its processing exports to these Asian countries. This pattern implies that China’s large surplus vis-à-vis the West is largely driven by its final assembly of components imported from the rest of Asia. The main driver of China’s trade surplus is thus not the “Made in China” syndrome, but rather the assembled in China phenomenon (see Box 1 for more on “Made in China”).

**Figure 6: China’s Bilateral Trade Balance for Processing Trade versus Ordinary Trade, 2005 (US\$ million)**



## Box 1 ---`Made in China": What's in a Label?

In a recent book "A Year without Made in China: One Family's True Life Adventure in the Global Economy," the author Sara Bongiorni highlights the omnipresence of "Made in China" labels. But does this mean that these products really were made in China? Perhaps not...

Canadian and U.S. customs requires that all imported products be marked with the name of a foreign country of origin and that the marking be present when the end consumer purchases the products. However, figuring out the country of origin of a product is not as simple as one might think in a world of global value chains. The origin is straightforward when the entire production process of a product is located in a single country. When the production process of a good is dispersed across multiple countries, however, the origin of traded goods becomes ambiguous. In that case, the country of origin of a good is generally determined by the last country in which a 'substantial transformation' of the good took place. A good undergoes a substantial transformation if, as a result of manufacturing and processing steps in this country, the imported good loses its identity and is transformed into a new good having a new name, character, or use.

A direct implication of the substantial transformation tests is that countries such as China that specialize in final assembly are more likely to receive a "country of origin" label, even if only a fraction of the product's value is produced in that country. Take the example of the Apple video iPod. The video iPod is labeled "Made in China" despite the fact that it combines components and technologies from numerous countries. As can be seen from Table 5, the key components from the video iPod are made in the U.S., Japan, Korea, Taiwan, Singapore and China.

**Table 5: Manufacturing Location of Key Components of the Apple Video iPod**

| Component                    | Supplier           | Headquarter Location | Manufacturing Location |
|------------------------------|--------------------|----------------------|------------------------|
| Design                       | Apple              | US                   | US                     |
| Portal Player CPU            | PortalPlayer       | US                   | US /Taiwan             |
| Video/multimedia processor   | Broadcom           | US                   | Taiwan/ Singapore      |
| Mobile SDRAM memory          | Samsung            | Korea                | Korea                  |
| Display driver               | Renesas            | Japan                | Japan                  |
| Display module               | Toshiba-Matsushita | Japan                | Japan                  |
| Hard drive                   | Toshiba            | Japan                | China                  |
| Insertion, test and assembly | Inventec           | Taiwan               | China                  |

*Source:* Linden et al. (2007)

## 4. Conclusion

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In this chapter, we have demonstrated that China's rise in international competitiveness is less severe once we take into account the problems related to export data. First, one third of China's export value is attributable to imported inputs, thus significantly biasing upward China's export performance. Indeed, if we only account for China's exports that were produced domestically, China's exports drop to 60 percent of its value. Second, once we take into account the role of processing trade, there is no evidence that China is rapidly upgrading into more high-tech production activities. China continues to have a comparative advantage in low-technology activities and a comparative disadvantage in high-technology activities.

The implications are quite profound. Many business groups adhere to the mantra that in light of China's rising international competitiveness, each company should have a China strategy. And many policy makers proclaim that we should protect our comparative advantage industries against China's unfair competition. Our findings suggest that following up on these suggestions might lead us to keep our eyes off the ball. In line with international trade theory, our direct competitors in the tasks that we have a comparative advantage in do not come from China, but continue to be the usual suspects: the United States, Western Europe and a handful of High-Income East Asian economies. Over time, China will catch up to this elitist group, but they are not there yet and there is no indication that they will be there in the near future.

## Bibliography

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Adams, G.; Gangnes, B.; Shachmurove, Y. (2006). "Why is China so Competitive? Measuring and Explaining China's Competitiveness." *The World Economy*, 29:2, pp. 95-122.

Balassa, B. (1965) "Trade Liberalisation and 'Revealed' Comparative Advantage", *The Manchester School of Economic and Social Studies*, 33, pp. 99-123.

Bongiorni, S. (2007) *A Year Without Made in China: One Family's True Life Adventure in the Global Economy*, John, Wiley & Sons Co., Hoboken.

Charlemagne (2007) "The China Trade Syndrome: Europe's Next Big Globalisation Row Will be Over Trade with China." *The Economist*, October 6, 2007, p. 62.

Finger, J.; Kreinin, M. (1979). "A Measure of Export Similarity and Its Possible Uses." *Economic Journal* 89, pp. 905-912.

Grossman, G.; Rossi-Hansberg, E. (2006). "Trading Tasks: A Simple Theory of Offshoring." National Bureau of Economic Research Working Paper No. 12721.

Hausmann, R; Hwang, J.; Rodrik, D. (2007). "What You Export Matters." *Journal of Economic Growth*, 12:1, pp. 1-25.

Hatzichronoglou, T. (1997), "Revision of the High-Technology Sector and Product Classification", OECD Science, Technology and Industry Working Papers, 1997/2.

Holst, D.; Weiss, J. (2004) "ASEAN and China: Export Rivals or Partners in Regional Growth?" *The World Economy* 27:8. 1255-1274.

Krugman, P. (1994). "Competitiveness: A Dangerous Obsession." *Foreign Affairs* 73:2. 28-44.

Lall, S. (2001). "Competitiveness Indices and Developing Countries: An Economic Evaluation of the Global Competitiveness Report." *World Development* 29:9. 1501-1525.

Lall, S.; Albaladejo, M. (2004) "China's Competitive Performance: A Threat to East Asian Manufacturing Exports?" *World Development* 32:9. 1441-1466.

Linden, G.; Kraemer, K.; Dedrick, J. (2007). "Who Captures Value in a Global Innovation System? The Case of Apple's iPod." Personal Computing Industry Center, mimeo.

Neary, P. (2003). "Competitive versus Comparative Advantage." *The World Economy* 26:4. 457-470.

OECD (2005). "OECD finds that China is biggest exporter of Information Technology Goods in 2004, surpassing US and EU," [www.oecd.org/document/8/0,2340,en\\_2825\\_495656\\_35833096\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/8/0,2340,en_2825_495656_35833096_1_1_1_1,00.html).

Rodrik, D. (2006). "What's So Special about China's Exports?" *China and the World Economy* 14:5, pp. 1-19.

Schott, P. (2006). "The Relative Sophistication of Chinese Exports." NBER Working Paper 12173.

Van Assche, A. (2006). "China's Electronics Exports: Just A Standard Trade Theory Case", *Policy Options* 27:6. 79-82.

Van Assche, A.; Gangnes, B. (2007). "Electronics Production Upgrading: Is China Exceptional?" CIRANO Scientific Papers 2007s-16, August 2007.