

Angel or Demon? China's Trade Impact on Latin American countries

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China's economy has expanded in leaps and bounds to become a major world trade player. For Latin America, China's growth is both a threat and an opportunity. With a few exceptions, Latin American trade clearly benefits from this country's global integration. In order to analyse China's trade impact, we study the country's export and import structures. A database of 620 different goods and two indices of trade competition were used to compare the impact of China on 34 economies (including 15 Latin American countries) during the period 1998-2004. In general terms, the results confirm that there is no relevant trade competition between China and Latin America in the United States market. Not surprisingly, those countries that export mainly commodities face less competition. This is to be expected, since China is a net importer of raw materials and Latin America has a strong commodity endowment.

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I

Introduction

Over the past two decades, China has become a major player in the global economy. In less than 20 years, its GDP has grown at an impressive rate of nearly 9.5% according to official figures,¹ and its share of world trade has jumped from a meagre 1% to more than 6%.

China's integration into the world economy has been one of the major events of recent decades. In 2003, it was already the sixth-largest economy in the world, measured at the market exchange rate,² the

fourth-largest global trader and the biggest recipient of foreign direct investment (FDI) in the world. If its trade growth continues, China will soon emerge as the third-largest trading economy in the world, overtaking Japan for the first time and coming in just behind the United States and Germany. In 2005, China overtook the United Kingdom to become the fourth-largest economy in the world.

As underlined by almost all Wall Street analysts, China's emergence has become the issue of the decade. The figures cited in discussing the country's 1.3 billion consumers are inevitably on a colossal scale. Goldman Sachs predicts that, by 2040, China will overtake the United States as the world's biggest economy.³ Much of the analysis might be overly optimistic, inviting some analysts to wonder if China's growth surge is being driven by an investment bubble, while others sound the alarm about a possible hard landing or worry about the Chinese currency peg⁴ and the banking system.⁵ According to other analysts, China's developing capitalism is not solidly based on law, a respect for property rights and free markets. Lastly, it is unclear whether Chinese public banks allocate their capital

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¹ Uncertainties about Chinese statistics abound. In 2003, for example, the official GDP growth rate was 9.1% but almost all economists following China suspected that the figure was over 11%. In 2005, Chinese authorities revised their statistics, upgrading GDP growth among other variables. On the contrary, Alwyn Young of Chicago University, estimated that GDP growth over the period 1978-1998 was 1.7 percentage points below the official one (Young, 2000 and 2003).

² In terms of purchasing power parity (PPP), China is the second largest economy behind the United States.

³ Over the past years, Goldman Sachs has implemented an aggressive strategy to enter China. This United States based global investment bank runs its business in the Asia-Pacific region with an office in Hong Kong as its headquarters. Goldman Sachs also has offices in Beijing and Shanghai for Chinese business contacts. In Asia, it employs over 1,000 people and 150 of them are dealing with Chinese businesses. For the challenges facing Goldman Sachs in China, see Yao, Li, and others (2003).

⁴ Concerns about the Chinese currency intensified during 2003 and 2004, an electoral year in the United States (Eichengreen, 2004 and 2006).

⁵ On the Chinese banking system, see Deutsche Bank (2004) and the Bank of Spain (2004). Over the past two decades, the rush of foreign banks into the Chinese financial system has also intensified, reflecting the deeper trade relations between China and the rest of the world. Hong Kong-Shanghai Bank Corporation (HSBC), Citigroup, Scotia, Crédit Lyonnais and BNP Paribas are among the foreign commercial banks with the strongest representation. Of the investment banks, the most active are Goldman Sachs, Morgan Stanley, Deutsche Bank, JP Morgan, UBS and Crédit Suisse First Boston (CSFB). In 2003, investment banks paid out more than US\$ 200 million in fees for initial public offerings (IPOs) of China-based companies according to estimates by *Dealogic* (a leading British information provider) released by the *Financial Times* (although this amount was not enough to compensate them for their expenditure).

according to capitalist economic criteria and whether they are therefore vulnerable to negative shocks. What is evident is the Chinese “gold rush” being experienced in nearly all markets. This is the case, for example, in bond markets owing to the issuance of Chinese bonds. In mid-October 2004, China issued a 10-year 1-billion euro bond that has been oversubscribed more than fourfold by large European investors, ranging from Finnish pension funds to Italian asset managers. The spreads of 50-60 basis points over United States Treasury bonds are largely comparable to those of Chilean investment grade paper and even to those of developed countries, like the 20 basis points paid by Spain the same week of the issuance.

In any event, the appetite of foreign investors for Chinese “gold mines” has grown steadily. Economic historians would, however, nuance China’s emergence and subsequent boom by suggesting that it is not totally new or unprecedented.⁶ China was already the largest economy for much of recorded history and, until the fifteenth century, China had the highest per capita income in the world. In 1820, although it had already been long overtaken by Europe in terms of per capita GDP, it still accounted for 30% of world GDP. As is also underlined by IMF and HSBC, the recent Chinese experience can easily be compared to that of Japan or the emerging Asian economies and indeed, China’s share of world trade is still far below that of Japan for example (IMF, 2004; HSBC, 2005). These studies emphasize that China’s rising share in world output and economic integration is already having a significant impact all around the world. This is the case in Asia (Ahearne, Fernald and others 2003) but also much further afield in Africa for instance (Goldstein, Pinaud and others, 2006).

The growing impact of China on Latin America has also raised the interest of major institutions involved in the region (ECLAC, 2005; Andean Development Corporation, 2006). Mirroring moves by the Asian Development Bank (Lin, 2004; Lall and Weiss, 2004), the Inter-American Development Bank (IDB) has multiplied the number of studies into the impact of Chinese growth on Latin America⁷ and has developed a dense research network and agenda to encourage

research between Asia and Latin America.⁸ At the IDB Annual Meeting in Lima, China’s application for membership was formally submitted and Japan was chosen as host for the 2005 Annual Meeting. On 1 October 2004, IDB organized a major event on China and Latin America in Washington, in cooperation with the Asian Development Bank, and published an extensive report (IDB, 2004). As underlined by one panellist and then-President of IDB, Enrique Iglesias, it was the first time in the history of the institution that such an event was taking place.

The Banco Bilbao Vizcaya Argentaria (BBVA), a major European bank with a large Latin American franchise, has also published several studies to assess the impact of China on the region. In its monthly review, *Latinwatch*, BBVA published two articles on this issue. The first, published in *Latinwatch* of June 2003 (BBVA, 2003) and entitled “Mexico and China in World Trade” suggested that the emergence of China as a global trade player was a negative event for Mexico. The second (BBVA, 2004), entitled “China’s Economic Potential and Opportunities for Argentina”, concluded that the results for Argentina were the opposite of those for Mexico. The fact that the same review published two case studies with contradictory results is, to say the least, surprising. The perception about the impact of the emergence of China on Latin America seems therefore to be rather contradictory. On the one hand, China’s very low labour costs and strong competitiveness are a risk for other economies. On the other hand, China’s enormous domestic market presents an opportunity. Is China an angel or a demon for Latin America?

This paper assesses the trade impact of China on Latin America, on the basis of the emergence of China as a global player. It follows the same lines as the Rumbaugh and Blancher study (2004) which analysed the risks and opportunities of China’s emergence, but on a global scale. Unfortunately, Rumbaugh and Blancher (2004) exclude Latin America. Most of the studies on the impact of Chinese trade on emerging markets tend to concentrate on Asia, where Chinese exports tend to crowd out the exports of other Asian countries (see Eichengreen and others, 2004). In fact, much of the increase in United States imports from China has been at the expense not of Mexico or Central American countries (protected by proximity) but of

⁶ See the study of Angus Maddison for the OECD Development Centre (Maddison, 1998) for a historical perspective on the Chinese economy and the papers of Carol Shiue and Wolfgang Keller (2004a and 2004b).

⁷ See for example Lora (2004a) and IDB (2006).

⁸ See the website of the Latin American/Caribbean and Asia Pacific Economics and Business Association (LAEBA): <http://www.laeba.org/index.cfm>.

Asian countries like Japan or other emerging economies in the area. For example, in 1988, nearly 60% of United States shoe imports came from South Korea or Taiwan Province of China, compared to a meagre 2% from China. By 2005, China's share was more than 70%, while United States imports from South Korea and Taiwan Province of China had dwindled.

This emergence of China as a global trade player is exceptional in terms of its speed and depth. China is already a much more open economy than most emerging markets. In 2005, the sum of exports and imports of goods and services reached more than 70% of GDP while the figure is 30% or less in the United States, Japan or Brazil (Chinese trade performance is however comparable to some Latin American countries such as Chile or Mexico with ratios of 60-65%, and also to some developed countries like Spain). The growth trend also seems sustainable over the medium

term, driven by both external and domestic demand. According to Soler (2003), trade growth will be accompanied by a 1% yearly productivity growth in China between 2003 and 2012, which suggests that current Chinese growth is sustainable in the medium term. The rate of growth will probably decelerate as China develops, yet it will remain significant.

This paper assesses the impact of growth and trade not only in the short term, but also in the medium term. It is structured as follows: section II concentrates on the emergence of China as a global trade player; section III is about the trade structure of China; Section IV focuses on Chinese trade competition. Section V is centred on trade opportunities from strong Chinese demand and deals with geographical aspects and their impact on trade with China. Section VI examines China's impact in the long term. Lastly, section VII presents the main conclusions.

II

The emergence of China as a global trade player

China's progress since it first opened to foreign investment and reform in 1978 has been dazzling. Average annual GDP growth reached 9.5% during the period 1978-2005.⁹ Over the last 20 years, and after a long period of economic autarky, the country emerged as a major player in world trade. In this context, China's accession to the World Trade Organization (WTO) in December 2001 could be considered a milestone. During those years, China significantly reduced its tariffs and progressively joined global trade. Nowadays, its weighted average tariff is 6.4% compared with 40.6% 10 years ago (see table 1).

In this process of commercial opening, the Chinese share in the global market grew quickly. However, when compared to some Latin American countries, the growth rate of China's exports looks less impressive in relative terms. During the 1990s for example, countries like Mexico, Chile or Costa Rica registered a more impressive export growth rate than China during the

same period (Lora, 2004b). The positive performance of exports allowed China to gain market share in developed markets (see table 2). By definition, this gain in market share was achieved at the expense of other economies.

This is one of the reasons why China is perceived by most emerging economies as a tough trade competitor.¹⁰ Some countries even blame China for the poor performance of their exports in recent years.¹¹ China is indeed taking the place of other emerging countries in world markets. This negative perception

⁹ On this performance and its sustainability, see Yifu Lin (2004); Zijian Wang and Wei (2004).

¹⁰ One indicator of the increasing competitive tensions generated by the emergence of China is the rising number of anti-dumping claims against China. In recent years, China has become the top anti-dumping target (see Chu and Prusa, 2004).

¹¹ For example, the poor performance of the industrial sector in the United States, despite its significant economic growth during the period 2002-2004, is indirectly attributed to China. There is an "off-shoring" process and, in this context, United States corporations are transferring their manufacturing activities to China to take advantage of its low labour costs. Similarly, some analysts claim that the poor performance of Mexican exports in recent years is due to China.

TABLE 1

Chinese tariffs over the last twenty years

	Unweighted average	Weighted average	Dispersion (standard deviation)	Maximum
1982	55.6	-	-	-
1992	42.9	40.6	-	220.0
1997	17.6	16.0	13.0	121.6
2002	12.3	6.4	9.1	71.0

Source: Based on *World Economic Outlook* (IMF, 2004).

TABLE 2

Chinese exports' market shares in major markets

(Percentage of total imports of major markets)

	1960	1970	1980	1990	2000	2002	2004	2005 ^a
Japan	0.5	1.4	3.1	5.1	14.5	18.3	20.8	21.0
United States	...	...	0.5	3.2	8.6	11.1	13.8	14.2
European Union ^b	0.8	0.6	0.7	2.0	6.2	7.5	14.1	10.1

Source: Based on figures taken from IMF, *World Economic Outlook* and *Direction of Trade Statistics*

^a 2005 (January-June).

^b Not including intra-trade among countries of the European Union.

increased after 2001, when China joined WTO. The accession to WTO opened up global markets to Chinese goods and it made the Chinese ability to compete successfully in those markets even more obvious. As a matter of fact, it is clear that there is strong competition between China and other economies that specialize in exporting industrial goods with relatively low value added. It is therefore clear that some costs will appear in the short-term.

As if to confirm this perception, China's share of world exports has increased rapidly over the last 20 years. In 1980, China accounted for 0.9% of world exports and by 2002 its share had risen to 5%. In 2003, it reached nearly 6% and, by the end of 2004, China was becoming the world's third biggest exporter (after the United States and Germany). From 1990 to 2002, world exports grew by around 90% and Chinese exports by about 425%. This performance of Chinese exports implies, by definition, that other countries are losing market share. It is clear that, in the short-term,

some costs will appear. China can produce goods of low value added at a very low cost. The reason is that labour is relatively more abundant in China than in other economies. Wages are on average four times lower in China than in Latin American countries. In 2002, the average Chinese monthly salary in the manufacturing sector was 112 dollars, compared with around 440 dollars in Mexico and 300 dollars in other urban *maquila* countries of Central America such as Costa Rica, El Salvador or Panama. However, all these facts might be interpreted too naively in an exclusively negative way.

On the positive side, we find that there are benefits to be had from trade with China. China has an enormous domestic market. The development of China will be accompanied by a flowering of its market. The emergence of China implies long-term trade benefits. Developing countries like those of East Asia, which have established strong trade and investment relations with China, could benefit from this process.

III

The trade structure of China

In order to analyse the short-term impact of Chinese trade performance, it is first necessary to study the country's export and import structure.

The first relevant point is that there is an enormous gap between merchandise exports and imports. In fact, the difference between exports and imports is US\$ 30.4 billion. As mentioned in the previous section, however, this feature of the Chinese trade balance should be a temporary characteristic. In other words, we expect a more sustainable trade balance in the long term.

The database used in this section is that of the United Nations Conference on Trade and Development (UNCTAD).¹² It covers 620 different goods and uses the three-digit Standard International Trade Classification. The UNCTAD one-digit classification is used here for ease of presentation.

On the export side, there are three key sectors in 2004: manufactured goods, machinery and transport equipment, and miscellaneous manufactured goods. These three sectors add up to 87.4% of total exports (see table 3).

We should highlight the impressive performance of machinery and transport equipment. In 1998, this sort of merchandise amounted to 28.0% of total exports. Six years later, it represented 46.6%, i.e. an 18.6 point increase. Miscellaneous manufactured goods, on the other hand, are rapidly losing their share.

As far as imports are concerned, we find that manufactured goods, machinery and transport equipment and chemicals are the relevant sectors. These added up to 69.2% of total imports in 2004 (see table 4). The relatively similar structure of exports and imports suggests that significant intra-industry trade is taking place. In fact, this evidence reflects the fact that China has turned into a regional production centre and manufacturing point for re-exports.

As in the previous case, machinery and transport equipment is increasing rapidly. Manufactured goods, on the other hand, are losing weight in the import structure. In fact, if we use the Interactive Graphic System for International Trade Data (SIGCI) database (ECLAC) we find the same results. This database divides the trade structure into high-technology manufactured goods, middle-technology manufactured goods, low-technology manufactured goods, manufactured goods

¹² This database can be found on line at www.intracen.org.

TABLE 3

Export Structure of China
(% of total exports)

	1998	1999	2000	2001	2002	2003	2004
Machinery and transport equipment	28.0	31.1	34.2	36.8	40.3	44.0	46.6
Miscellaneous manufactured goods	37.3	36.2	33.7	31.9	30.2	28.1	25.6
Manufactured goods	16.0	15.3	15.4	14.8	14.5	14.0	15.2
Chemical products	5.4	5.1	4.6	4.7	4.5	4.2	4.2
Food and animals	5.8	5.4	4.9	4.8	4.5	4.0	3.2
Mineral fuel and lubricants	2.8	2.3	3.1	3.1	2.6	2.5	2.4
Commodities	2.1	2.1	1.9	1.9	1.8	1.6	1.6
Crude material (excl. food and fuel)	1.7	1.8	1.6	1.4	1.2	1.0	0.9
Beverages and tobacco	0.5	0.4	0.3	0.3	0.3	0.2	0.2
Animal and vegetable oil/fat/wax	0.4	0.3	0.3	0.3	0.2	0.2	0.1

Source: Database 2004 of the International Trade Centre (ITC), United Nations Conference on Trade and Development/World Trade Organization (UNCTAD/WTO).

using natural resources, raw materials and other transactions (see table 5).

The relatively similar trade structure suggests that intra-industry trade is taking place. In this case, high-tech manufactured goods are increasing rapidly. Low-tech manufactured goods, on the other hand, mainly

are losing weight in the trade structure, both in terms of exports and imports.

These data however do not reveal any information on Chinese advantages or disadvantages. To study the impact on other countries, a more detailed analysis is needed.

TABLE 4

Import structure of China
(% of total imports)

	1998	1999	2000	2001	2002	2003	2004
Machinery and transport equipment	38.8	40.5	40.3	42.3	45.3	45.9	44.4
Manufactured goods	22.5	21.2	19.0	17.7	17.2	16.2	13.6
Chemical products	13.8	13.8	12.7	12.4	12.3	11.1	11.2
Miscellaneous manufactured goods	7.8	7.3	6.1	7.7	7.6	8.6	9.4
Crude material (excl. food and fuel)	7.5	7.6	8.8	9.0	7.6	8.2	9.8
Mineral fuel and lubricants	4.9	5.5	9.2	7.2	6.6	7.1	8.6
Food and animals	2.7	2.2	2.1	2.0	1.8	1.4	1.6
Commodities	1.1	1.5	1.4	1.3	1.2	1.0	0.9
Animal and vegetable oil/fat/wax	0.6	0.4	0.2	0.1	0.2	0.3	0.4
Beverages and tobacco	0.1	0.1	0.2	0.2	0.1	0.1	0.1

Source: Based on data from Intracen 2004, UNCTAD/WTO.

TABLE 5

Export and Import Structure of China
(% of total exports and imports)

	1990	1995	2000	2003	2004	2005
<i>Export Structure</i>						
High-tech manufactured goods	5.3	13.0	22.4	30.3	32.5	33.2
Low-tech manufactured goods	40.2	46.3	41.2	35.2	32.5	31.5
Mid-tech manufactured goods	20.8	18.8	19.6	20.4	21.7	22.0
Resource-based manufactured goods	11.4	12.0	9.9	9.1	9.3	9.4
Raw materials	20.2	9.0	6.2	4.5	3.5	3.3
Other transactions	2.1	0.7	0.7	0.6	0.5	0.5
<i>Import Structure</i>						
High-tech manufactured goods	13.4	17.4	28.0	34.0	34.2	35.7
Mid-tech manufactured goods	45.9	42.0	30.4	31.1	29.4	27.0
Raw materials	10.8	10.3	13.7	11.5	14.5	16.4
Resource-based manufactured goods	11.9	13.9	15.2	13.0	13.2	12.6
Low-tech manufactured goods	17.0	14.9	11.6	9.9	8.2	7.8
Other transactions	1.0	1.0	1.1	0.6	0.5	0.6

Source: Interactive Graphic System for International Trade Data (SIGCI), ECLAC.

IV

The short-term costs:

Chinese trade competition

Even though we think China will benefit from other emerging economies in the long term, some costs could arise in the short term. In particular, China is competing with other emerging economies in developed markets. In the case of Latin American countries, anecdotal evidence suggests that Mexico is a paradigmatic example of these short-term costs.¹³

Two indices of trade competition have been used to assess the short-term costs stemming from Chinese competition. The aim of these indices is to compare the export structure of China with that of other emerging economies over a particular period of time. If the export structure between two countries is quite similar, then trade competition is more likely in third markets such as the United States, the major destination of Latin American exports.

These indices were constructed using the UNCTAD database. The indices are modified versions of the well-known coefficient of specialization (*CS*) and coefficient of conformity (*CC*).

$$CS = 1 - \frac{1}{2} \sum_n |a_{in}^n - a_{jn}^n|$$

$$CC = \frac{\sum_n a_{in}^n a_{jn}^n}{\sqrt{\sum_n (a_{in}^n)^2 \sum_n (a_{jn}^n)^2}}$$

Where a_{in} and a_{jn} represent the share of good “n” in total exports of country “i” and country “j”, respectively, in period “t”. In this case, one country will always be China and the other a selected economy. If two countries (ij) have exactly the same export structure, then both indices are equal to 1. In this case, the potential trade competition is high. On the other hand, both indices equal 0 if there is no coincidence. Two indices were constructed instead of one, to ensure that results were consistent.¹⁴ We calculate *CS* and

CC, comparing competition between China and 34 economies (including 15 Latin American countries). The period is 1998-2004. Obviously, *CS* and *CC* are calculated for each year.

To sum up, the export structure of China is compared with that of 34 countries. This comparison is carried out for seven different years (1998-2004). Lastly, two different indices are used for each year. That information is aggregated to present the results in the simplest way possible. The final figure, labelled *CI*, is the arithmetic average of both indices (see table 6 and figure 1).

The results are quite interesting. Figures are relatively low for all Latin American economies except Mexico. In general terms, the results suggest that there is no direct trade competition between China and Latin America in the United States market. Unsurprisingly, countries that export mainly commodities face lower competition. This is to be expected, as China is a net importer of raw materials. Paraguay, the Bolivarian Republic of Venezuela, Bolivia and Panama are those that exhibit the lowest figures among the 34 selected economies, i.e. those are the countries that suffer the least from Chinese trade competition. Brazil and Colombia could be considered intermediate cases between Mexico and the Bolivarian Republic of Venezuela.

When we compare Latin America with other emerging countries, and particularly those located in Asia, we observe that Chinese competition is not a problem in general terms. Thus, we might conclude that there are only a few, if any, short-term trade costs for Latin America from the trade point of view. In fact, most Latin American countries are witnessing a tremendous increase in their exports to China. In recent years, China has, for example, become Brazil’s fastest-growing export market, purchasing 80% more from Brazil in 2003 than in 2002. Bilateral trade more than quadrupled in the period 2001-2004. However this trade is very concentrated on five commodities: soybeans, iron ore, steel, soy oil and wood accounted for 75% of Brazil’s exports to China in 2005. Some big Brazilian companies like Aracruz, Latin America’s

¹³ See, for example, *América Economía* (2003) and *The Wall Street Journal* (2004).

¹⁴ The correlation between both indices is 0.94. This figure shows that both indices report the same information.

TABLE 6

**Chinese trade competition with Latin America
in the United States market, 2000-2004^a**

	Coefficient of specialization (CS) ^b	Coefficient of conformity (CC) ^b	Average (CI) ^b	Average (CI 2002) ^c
<i>Paraguay</i>	0.08	0.02	0.05	0.07
<i>Venezuela (Bol. Rep.)</i>	0.10	0.03	0.06	0.10
<i>Bolivia</i>	0.12	0.04	0.08	0.11
<i>Panama</i>	0.11	0.06	0.08	0.11
<i>Chile</i>	0.14	0.04	0.09	0.11
<i>Honduras</i>	0.14	0.05	0.09	0.13
<i>Russia</i>	0.15	0.06	0.10	0.12
<i>Uruguay</i>	0.18	0.07	0.12	0.17
<i>Peru</i>	0.19	0.08	0.13	0.17
<i>Argentina</i>	0.20	0.08	0.14	0.17
<i>Guatemala</i>	0.24	0.11	0.17	0.16
<i>Colombia</i>	0.25	0.12	0.18	0.20
<i>El Salvador</i>	0.31	0.21	0.26	0.25
<i>Brazil</i>	0.30	0.21	0.26	0.28
<i>Pakistan</i>	0.30	0.26	0.28	0.32
<i>Slovakia</i>	0.40	0.23	0.31	0.33
<i>Spain</i>	0.42	0.22	0.32	0.34
<i>Costa Rica</i>	0.34	0.32	0.33	0.29
<i>India</i>	0.42	0.25	0.34	0.38
<i>Japan</i>	0.41	0.35	0.38	0.38
<i>Philippines</i>	0.40	0.37	0.39	0.33
<i>Bulgaria</i>	0.43	0.36	0.39	0.41
<i>Croatia</i>	0.45	0.34	0.40	0.42
<i>Poland</i>	0.44	0.35	0.40	0.46
<i>Turkey</i>	0.43	0.38	0.41	0.49
<i>Indonesia</i>	0.46	0.39	0.43	0.42
<i>United States</i>	0.43	0.44	0.44	0.44
<i>Romania</i>	0.45	0.45	0.45	0.52
<i>Singapore</i>	0.45	0.52	0.48	0.43
<i>Czech R.</i>	0.50	0.52	0.51	0.43
<i>Malaysia</i>	0.48	0.57	0.53	0.46
<i>Mexico</i>	0.52	0.54	0.53	0.50
<i>Republic of Korea</i>	0.50	0.60	0.55	0.48
<i>Hungary</i>	0.54	0.66	0.60	0.55
<i>Thailand</i>	0.57	0.71	0.64	0.57

Source: Authors' own data.

^a Ascending Order of average *CI*

^b Average 2002-2004

^c Average 2000-2002

largest wood-pulp producer, has more than doubled its sales to China in the past two years (they now account for 12% of the company's exports).¹⁵ China has also become a major trading partner for other

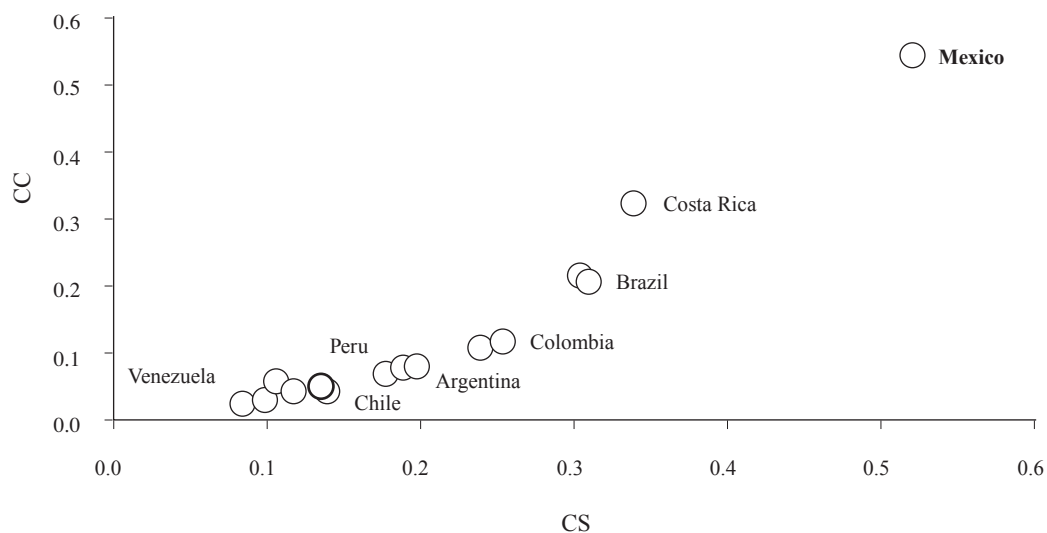
companies such as iron-ore producer Companhia Vale do Rio Doce (CVRD). Another issue for Brazil is the buoyancy of Chinese exports. China will continue to expand its exports over the next decades, with new products gaining market share in third markets. From this perspective, as underlined by Brazilian economists (Paiva de Abreu, 2005), some Brazilian sectors like iron and steel products might be affected by Chinese

¹⁵ In May 2004, Brazilian President Luiz Inacio Lula da Silva took more than 400 executives to China, the largest official Brazilian delegation to make a trade visit.

FIGURE 1

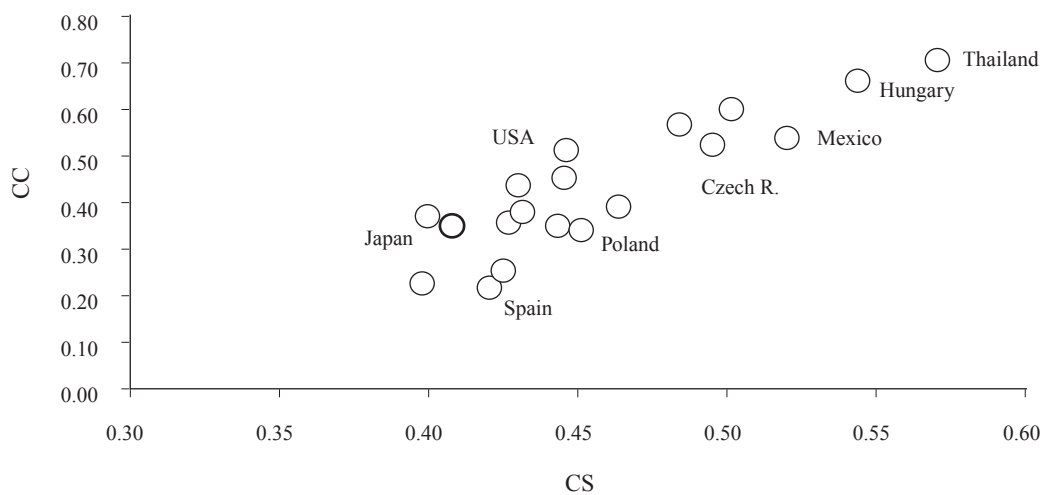
Chinese trade competition with Latin America in the United States, 2000-2004

A) With Latin America



Source: Authors' own data.

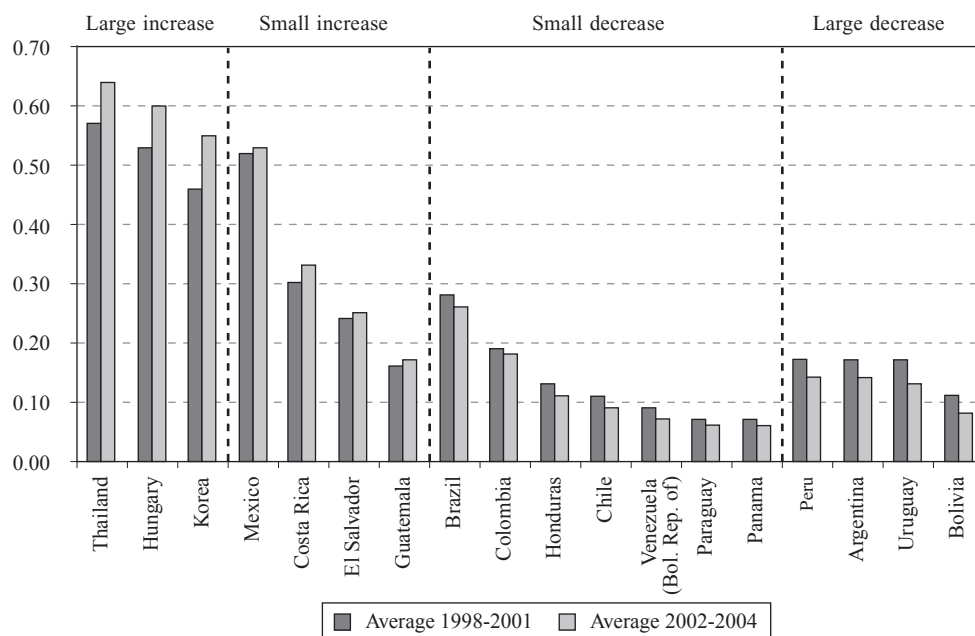
B) With other countries



Source: Authors' own data.

FIGURE 2

Chinese trade competition, 1998-2001 and 2001-2004



Source: Authors' own data.

competition in the medium term. In a more long-term perspective, the automobile industry could also become an issue.

Mexico is, clearly, another story. The results hint at Mexico facing strong commercial competition.¹⁶ In fact, only the Republic of Korea, Hungary and Thailand suffer from tougher potential competition. In this case, empirical evidence backs formal analysis. What is more, Chinese trade competition is tending to increase over time, as indicated by our *CI* index.¹⁷

In the second period, Chinese competition increased in countries where trade competition was already high, such as Thailand, Hungary, Republic of Korea and Mexico. In contrast, Latin America as a whole suffered less from Chinese trade competition: the index dropped in 11 out of the 15 Latin America countries studied (see figure 2).

Our analysis suggests that China could jeopardize some Mexican exports in foreign markets. Again, some empirical evidence supports this point. The largest market for Mexican exports is, by far, the United States. Thus, the United States market absorbed 85% of Mexican exports in 2005. In 2003, and according to the United States Bureau of Economic Analysis (BEA), the market share of China was 12.1%, beating Mexico for the first time in its history. Berges (2004) studies these trends in detail.

Mexico specializes in information technology (IT) and consumer electronics, electronic components, clothing, transport equipment and miscellaneous manufacturing, according to the Balassa index.¹⁸ This index measures the revealed comparative advantage according to the Balassa formula. The index, which includes 14 different sectors, compares the share of a given sector in national exports with the share of this sector in world exports. If this index is above one, then

¹⁶ Soler (2003) reaches the same conclusion: China jeopardizes Mexican exports. However, the final impact on Mexico depends not only on trade competition, but also on changes in capital flows.

¹⁷ For other countries, see Appendix A.

¹⁸ This information is available on line at www.intracen.org.

TABLE 7

Balassa Specialization Index

	China 2002	China 2004	Mexico 2002	Mexico 2004
Wood products	0.45	0.43	0.26	0.26
Leather products	3.70	3.34	0.34	-
Chemicals	0.46	0.42	0.35	0.34
Processed food	0.57	0.47	0.57	0.56
Textiles	2.43	2.39	0.53	0.49
Minerals	0.29	0.28	0.83	1.06
Basic manufactures	1.01	0.96	0.76	0.69
Non-electronic machinery	0.52	0.52	0.82	0.84
Fresh food	0.77	0.68	0.69	0.80
<i>Miscellaneous manufacturing</i>	<i>1.59</i>	<i>1.48</i>	<i>1.08</i>	<i>1.07</i>
Transport equipment	0.25	0.27	1.43	1.34
<i>Clothing</i>	<i>3.65</i>	<i>3.46</i>	<i>1.39</i>	<i>1.29</i>
<i>Electronic components</i>	<i>1.04</i>	<i>1.04</i>	<i>1.49</i>	<i>1.53</i>
<i>IT and consumer electronics</i>	<i>2.00</i>	<i>2.43</i>	<i>1.81</i>	<i>1.75</i>

Source: Authors' own data based on Intracen, 2004, UNCTAD/WTO.

the country is specialized in that sector. China, in contrast, is specialized in IT and consumer electronics, electronic components, clothing, miscellaneous manufacturing, textiles, basic manufactures and leather goods. China and Mexico therefore specialize in similar sectors. From the Mexican point of view, transport equipment is the only sector in which Chinese competition is not relevant.

Some economists argue that the Mexican export model could be at risk. In 1994, the North American Free-Trade Agreement (NAFTA) came into force. Mexico specialized in manufactures of low value added, i.e. maquila products. China can also produce this kind of goods, but at a lower cost. Labour is relatively more abundant in China than in Latin America. As mentioned before, wages are four times lower in China than in Latin American countries (on average). In addition the Chinese authorities foster these sorts of labour-intensive industries through their "one-stop shop" programme. This programme grants tax exemptions and technical assistance. Joining WTO gave China access to the United States market. The current export structure of Mexico will probably change because of Chinese competition. Singapore, Taiwan Province of China and the Republic of Korea are already changing their export structure by upgrading the value added of their exports.

Nevertheless, it is difficult to foresee the direction of change in the case of Mexico and to assess the future impact of China if we take into account dimensions other than production and labour costs. Mexico clearly has a competitive advantage over China: proximity

to the United States. Economists have been stressing the related issues of transport costs and trade costs in order to capture the penalty of distance (see Hummels, 2001a). Distance also introduces delays that give rise to trade, freight and transaction costs. However, as argued by Harrigan and Venables (2004), and Hummels (2001b), an important element of the cost of distance in trade issues is also time, that is the time taken in delivering final and intermediate goods. Time costs are not only a quantitatively important aspect of proximity but quality also matters in terms of synchronization of activities, delivery, thus creating incentives for clustering activities. One aspect for Mexico to consider would be the identification of sectors and products where this issue of distance and time are key comparative and competitive assets.

In a detailed study, Evans and Harrigan (2003) developed a theoretical model where timely delivery matters a great deal, and products are therefore developed near the source of final demand, making wages higher as a result. In their model, timely delivery is a key asset because it allows retailers to respond quickly and efficiently to fluctuating final demand without holding costly inventories, and timely delivery is only possible where location is near final demand. This theoretical model is consistent with empirical examples and trends during the 1990s, which witnessed some shifts in the location of production away from lower-wage based producers like China toward higher-wage locations like Mexico. This shift occurred for example in the sourcing of United States apparel and

it is concentrated precisely on goods where timeliness is essential. Based on detailed empirical data from a major department store, they found strong evidence that nearby producers are specialized in goods where time and timeliness matters, as predicted by their theoretical model.

One can argue that, for Mexico, working on reducing trade costs could bring back a strategic advantage for this member country of the North American Free Trade Area (NAFTA), as trade costs have become much more significant than production costs (Deardoff, 2004). Some studies find a modest decrease in the elasticity of trade to distance, though most of them point to little or no change, and more surprisingly to a modest increase (Disdier and Head, 2004), while gravity equation estimates from panel data over long time periods tend to find an increase (Brun, Carrère and others, 2005). According to the estimates of Anderson and van Wincoop (2003) trade costs are on average nearly twice as high as production costs. This implies that trade costs are significant determinants of comparative advantage, perhaps even more so than production costs—where China has a competitive advantage.

In fact, and contrary to conventional wisdom, the effect of distance on trade has not decreased but rather increased over the past decades.¹⁹ Hummels (2001b) provided evidence, using detailed data on shipping costs, that ocean freight rates have in fact increased while United States air cargo rates showed large cost reductions between 1955 and 1997 (a result confirmed also for overland transport costs by Glaeser and Kohlhase, 2003). The reduction of transport costs does not therefore seem to be uniform over time. In fact, as shown by Berthelon and Freund (2003) there has been a significant and increasing impact of distance on trade in more than 25% of the nearly 770 industries studied, i.e. in more than 30% of trade, and there are almost no industries for which distance has become less important. Carrère and Schiff (2003) reached a similar conclusion by examining patterns in how distance affects countries' trade over time. They found that the distance of trade (DOT), an indicator of a country's proximity to the world centre of economic activity, declined over time for a majority of countries (with the exception of the United States) during the period 1962-2000. In other words, countries (still)

benefit from proximity to the centre of world activity while others are penalized for being far from it. In a systematic survey of empirical research on how distance effects have fallen or increased over time (856 distance effects examined in 55 papers), Disdier and Head (2004) found that the negative impact of distance on trade has not decreased but rather has increased over the last century.

Another issue for Mexico, and also other Latin American countries, will be to reduce transport costs and boost infrastructure efficiency. For most Latin American countries, transport costs are even greater barriers to United States markets than import tariffs.²⁰ In a detailed analysis of shipping costs to the United States market, using a database of more than 300,000 observations per year on shipment products, Clark, Dollar and Micco (2004) found that port efficiency is an important determinant of shipping costs.²¹ This is a relevant issue as the lowering of average tariff barriers (both in Asia and in Latin America) has increased the relative importance of transport costs as a determinant of trade. When Mexico is excluded, Latin American average freight costs are similar or even in some cases higher than those of the Asian competitor.

For some countries, like Chile or Ecuador, transport costs are more than 20 times higher than the average tariffs they face in the United States. Lowering transport costs, and therefore increasing infrastructure efficiency, could boost the trade performance of Latin American exporters.²² Focusing on the effects of port efficiency on transport costs, Clark, Dollar and Micco (2004) found that improving port efficiency from the 25th to 75th percentiles will reduce shipping costs by more than 12%. In the case of Mexico, which benefits from proximity to the United States, an improvement in port efficiency to the levels observed in countries like France or Sweden would reduce transport costs by around 10%. In the case of Brazil or Ecuador, it would reduce their maritime transport costs by more

¹⁹ See Anderson and van Wincoop (2004).

²⁰ In this sense, the Panamá-Puebla highway—a new infrastructure project—could generate a significant increase in trade between Central American countries and Mexico and the United States.

²¹ They also show that distance matters and that it has a significantly (1%) positive effect on transport costs: doubling the distance roughly generates an 18% increase in transport costs. See table in Appendix B.

²² Limao and Venables (2000) showed that raising transport costs by 10% reduces trade volumes by more than 20%. They also underlined that poor infrastructure accounts for more than 40% of predicted transport costs.

than 15%, according to the estimates of the authors. Latin America is perceived as being one of the least efficient regions in terms of ports, and also has significant customs problems with a median clearing delay of 7 days (the worst performers being Ecuador (15 days) and the Bolivarian Republic of Venezuela (11 days)); moreover, ports face high container

handling costs and major organized criminal activity in seaport infrastructure. Clearly, there is ample room for improvement. All in all, an improvement in port efficiency from 25th to 75th percentiles would reduce shipping costs by more than 12%, which would be equivalent to 5,000 miles in distance, according to the estimates of the authors.

V

The short-term opportunities: strong Chinese demand

As shown, China's impact on Latin America is generally positive with a few exceptions. Yet even for the countries like Mexico that are facing increasing competition pressure in the United States market, China could be (at least in theory) an opportunity and a potential export market for intra-trade exchanges.

Two indices were constructed in order to assess the potential benefits of increasing Chinese demand. As in the previous case, the UNCTAD database containing 620 different goods has been used. These indices compare the export structure of 15 Latin American countries with the import structure of China. If the exports of a particular country are similar to the imports of China, then there is a potential trade gain for Latin American economies. It is important to point out that the Latin American country and China do not necessarily trade, even if the value of these indices is close to one. We must highlight that there is a potential gain and an obvious commercial opportunity.

The indices are, again, modified versions of the well-known specialization coefficient (*CSm*) and the conformity coefficient (*CCm*).

$$CSm = 1 - \frac{1}{2} \sum_n |a_{it}^n - a_{jt}^n|$$

$$CCm = \frac{\sum_n a_{it}^n a_{jt}^n}{\sqrt{\sum_n (a_{it}^n)^2 \sum_n (a_{jt}^n)^2}}$$

Where a_{it} represents the share of good n in total exports of the Latin American country i in period t .

On the other hand, a_{jt} is the share of good n in total imports of China in period t . Both indices are equal to 1 if there is a perfect correspondence between Chinese imports and exports of the Latin American country under consideration. Again, two indices were built to ensure consistent results. As in the previous section, the period considered is 1998-2004 and *CSm* and *CCm* are calculated for every year. Finally, for presentation purposes the previous information is aggregated into a new index (*CIm*) (see table 8).

TABLE 8

Potential trade with China

	CSm ^{ab}	CCm ^{ab}	CIm ^b	CIm 2002 ^c
Panama	0.09	0.03	0.06	0.08
Honduras	0.13	0.04	0.08	0.08
Paraguay	0.10	0.08	0.09	0.10
Peru	0.16	0.09	0.13	0.15
Bolivia	0.16	0.09	0.13	0.14
Uruguay	0.18	0.07	0.13	0.15
Chile	0.17	0.12	0.15	0.17
El Salvador	0.21	0.11	0.16	0.17
Guatemala	0.24	0.14	0.19	0.16
Venezuela (Bol. Rep. of)	0.17	0.30	0.23	0.25
Costa Rica	0.24	0.25	0.25	0.25
Colombia	0.25	0.28	0.27	0.27
Argentina	0.31	0.23	0.27	0.30
Brazil	0.40	0.33	0.36	0.36
Mexico	0.44	0.50	0.47	0.47

Source: Authors' own data.

^a Ascending Order CIm

^b Average 2002-2004.

^c Average 2000-2002.

The results are not very encouraging. The main reason is that Latin American countries are exporters of commodities and therefore the potential trade with China is concentrated on a small basket of goods. In other words, intra-industry trade is not very likely with Latin America given its export structure (with the exception of Mexico and Brazil).

The export specialization index is only presented for larger countries in the interests of simplicity. In table A.2 (appendix A), which presents data for 11 Latin American countries, the figures in bold type represent those sectors in which Latin America is specialized and China is not, i.e. wood products, processed food, minerals and perishable goods. Those sectors are clearly raw materials. El Salvador and Guatemala also specialize in chemicals²³ and Mexico in transport equipment.

In general terms, Latin America specializes in exporting commodities. This means that potential trade gains are limited to few items. Furthermore, trade with China could entail a deeper specialization in those goods, because of current strong Chinese demand for commodities, thereby increasing the risk that some countries might be caught in a “raw material corner” without being able to move ahead in the value added chain. In fact, China is also increasing its demand in some raw material markets (see table 9). In 2003, China became the world’s largest importer of cotton, copper, soybean and the fourth largest importer of oil.²⁴ China’s demand for raw materials keeps growing, particularly for copper and soybean (demand rising by 50% yearly). In the case of oil, the rate of growth is nearly 20% every year. In 2003, China became the world’s leading importer of copper, boosting exports from Chile and Peru. The combination of a heavy industrial expansion and a booming economy also created a huge demand for oil that suppliers are straining to keep up with, causing the country to leapfrog Japan to become the second-largest oil consumer just behind the United States. In 2003, China alone was responsible for a third of the rise in daily global oil consumption.

²³ However, China imports chemical products mainly from East Asian countries. This sector is one in which those Asian economies are specialized. See Ianchovichina and Walmsley (2003).

²⁴ Using 2004 data, China accounted for 34.3% of world imports of soybeans, compared with only 7.4% in 1997. In the case of copper, China’s imports were 25.3% in 2004, compared with 5.0% in 1997. Lastly, Chinese imports of oil added up to 7.2% in 2004, compared with 2.3% in 1997.

TABLE 9

China and the world: Average annual growth in imports 1997-2004
(Percentages)

	China	World
Oil	24.4	2.9
Copper	18.4	4.0
Soybeans ^a	20.5	6.9

Source: Based on the United States Department of Agriculture (USDA), World Metal Statistics and British Petroleum.

^a Average 2001-2004.

Even though trade is concentrated in a small basket of commodities, China’s strong demand for raw materials is good news for Latin America. In economic terms, this could be considered as a positive demand shock. Furthermore, there is a positive impact on the region, even if direct trade with China does not rise. The reason is that commodities are almost homogenous goods. For example, if China increases its demand for crude, oil-producer countries should raise their production; otherwise prices will increase. Since 2004, China’s growing thirst for oil has been driving oil prices to their highest levels since trading in oil futures began on the New York Mercantile Exchange in 1983. According to the Paris-based OECD International Energy Agency, China accounted for one million barrels of the 1.8 million barrel increase in daily oil use during the first quarter of 2004. From 2000 to 2004, China accounted for nearly 40% of the entire growth in world oil demand.

The four main commodities in Latin America are copper, oil, soybean and coffee. These commodities account for 66% of total exports of raw materials. China absorbs a significant share of these commodities, excluding coffee.

Another relevant fact is that Latin America is a major world producer of commodities. The region produces 47% of the world soybean crop, 40% of copper production and 9.3% of that of crude oil. Strong Chinese demand represents an opportunity for most Latin American countries in the short-term, because of their export specialization in commodities. If this vigorous demand continues over time, there is likely to be positive impact on the region. However, unless the region increases its level of specialization, its dependence on commodities will intensify and countries will remain exposed to trade shocks.

TABLE 10

Latin America (seven countries): Composition of exports
(Percentages of exports of each country)

	Food	Fuels	Metals	Manufactures
Mexico	6	10	2	81
Brazil	31	1	9	54
Argentina	49	12	2	34
Colombia	32	31	1	31
Peru	35	7	39	17
Chile	25	1	48	16
Venezuela (Bol. Rep. of)	2	83	2	12

Source: Based on *LatinFocus* (2004).

VI

China's impact on trade in the long term

The above-mentioned negative interpretation regarding China's impact is that this demand shock is a transitory one. In the long term, as predicted by economic theory, the positive performance of the Chinese economy and the increase in world trade would be beneficial to other countries. In this sense, the *World Economic Outlook* (IMF, 2004), presents two alternative scenarios analysing Chinese impact on world trade and growth. The results should, however, be treated with caution as both scenarios show a positive impact on the rest of the world in the long term. Most regions will benefit from stronger demand generated by China's rapid growth, although regions where labour faces relatively stronger competition from China benefit less. In addition, this study emphasizes that more structurally flexible countries will reap greater benefits. These results are similar to the findings of Ianchovichina and Martin (2003).

This state of affairs, characterized by the emergence of a global trade player, is however not new.²⁵ To illustrate this point we could compare the current situation with the Japanese experience of the 1950s and 1960s (see Yang, 2003; HSBC, 2005). At the beginning

of the twenty-first century, Japan was a key economy. It represented around 9% of world gross domestic product (GDP). Following the Second World War, however, the country was devastated. At that time, Japan was characterized by its relatively low wages. For more than 20 years, Japan implemented an economic policy that boosted growth and exports. That policy turned Japan into the second-largest economy. Nowadays, it is clear that the positive performance of the Japanese economy was partly due to the state of the world economy as a whole (including Latin America).

In some ways, the performance of the Chinese economy is similar to the Japanese experience. There is a clear correspondence between the two countries. The evidence matches up with the period of higher growth in Japan: 1952-1972; the period considered for China is 1979-1999. In each case, the growth rate was an average of 8.5%. In addition, average annual growth in trade²⁶ was around 13%.²⁷

However, similar trade and growth patterns are not the only similarities. The weight of each country in the world economy during the relevant period is also similar. Consequently, both countries have contributed

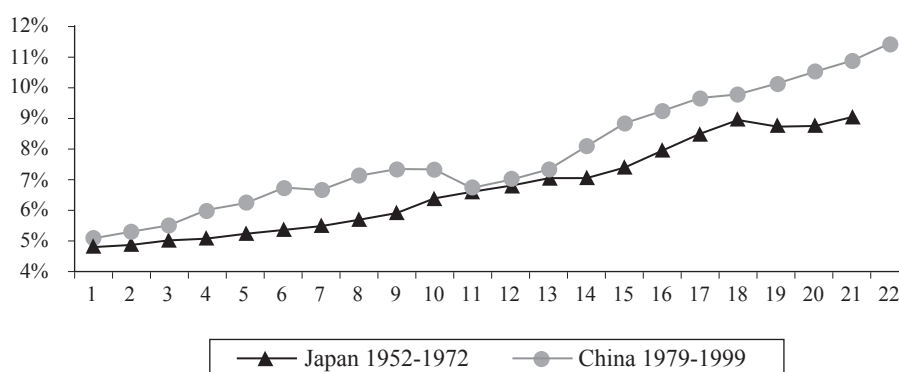
²⁵ See, for instance, *World Economic Outlook* (IMF, 2004). This edition also analyses the emergence of East Asia.

²⁶ In this paper we define trade as the sum of exports and imports.

²⁷ We have used the Summers and Heston database (PWT 6.1). See Heston and Summers (1997).

FIGURE 3

Japan and China: share of world GDP
(Percentage of world GDP)



Source: based on Summers and Heston database.

to world growth, on average, approximately 0.6 percentage points every year. In other words, during the period 1952-1972, world GDP grew by an average of 5.8%, with 0.6 percentage points of that growth attributable to Japanese GDP performance. During the period 1979-1999, average annual world growth was 3.7%, with Chinese growth contributing 0.6 points (see figure 3).

However, this comparison also throws up some striking differences. The composition of Japan's GDP in the early 1950s was quite similar to that of China in the early 1980s (see table 11). Around 60% of GDP was consumption, 15% was investment and over 25% was net exports.²⁸ Throughout the periods mentioned, the composition of GDP changed significantly. In the case of Japan, one can observe a reduction in consumption and net exports as a proportion of GDP, which was offset by investment. But in the case of China, there was a decrease in consumption and it was replaced by an increase in net exports and investment.

These figures reveal why China is perceived as a rival instead of a trading partner. The data show that China exports much more than it imports. So, other countries perceive that Chinese growth is not spreading. But this situation is not sustainable in the

TABLE 11

Japan and China: Components of GDP
(Percentages of total GDP)

Japan	1953	1972
Consumption	60	53
Investment	14	35
Net Exports	26	11
China	1979	1999
Consumption	57	47
Investment	17	21
Net Exports	27	32

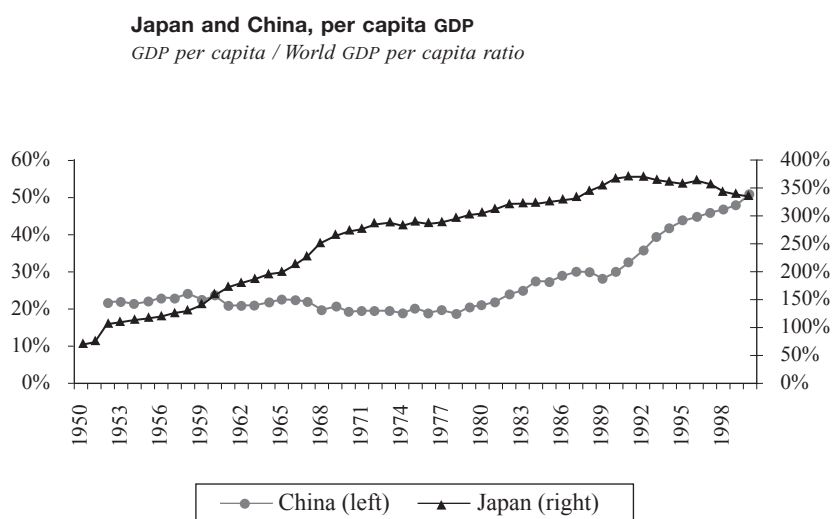
Source: Summer and Heston database.

long-term. Eventually, China will import massively and net exports will fall.²⁹ In fact, according to the WTO database, in 2005 Chinese merchandise imports totalled 6.1% of world imports. On the other hand, Chinese exports amounted to 7.3% of world exports. The difference between merchandise exports and imports represents US\$ 101.9 billion. This amount is three times the nominal GDP of Ecuador. Now in the middle of the first decade of the twenty-first century,

²⁸ Net exports are defined as the difference between exports and imports in real terms.

²⁹ Ianchovichina and Martin (2001) share this opinion about the future of net exports. They expect a significant increase in China's imports.

FIGURE 4



Source: based on Summers and Heston database.

Chinese manufacturers are already lapping up imports and dictating global prices for nearly everything from copper to microchips.

Another important difference between the two countries is that Japan had a more developed economy and China is still a developing country (see figure 4). Chinese per capita GDP in 2000 was around 50% below the world average. According to the Summers and Heston database,³⁰ per capita GDP in China is similar to that of Ecuador. This evidence suggests that, despite its impressive performance over the last 20 years, a deeper convergence process might take some time. In other words, China could still enjoy a high rate of growth for a long period.

In this regard, some simple projections have been made to evaluate the future weight of China within the world economy (see table 12).³¹ In the 1990s, China grew by 10.1% on average, the world by 3.3% and Latin America by 3.4%. If these rates hold for the next 20 years, China will become the largest economy, far outstripping the United States.³²

In 2002, Chinese merchandise imports already represented 4.4% of world imports. During the 1990s,

TABLE 12

China and Latin America: share of world GDP, 2002 -2020
(Percentages)

	2002	2010	2020
China	12.7	21.1	40.1
Latin America	7.9	7.9	8.0

Source: Authors' own data.

Chinese imports grew by around 16% on average and world imports (excluding China) by around 7%. If these trends continue, China will represent 8% of world imports in the year 2010 and 18% in the year 2020.

It is hard to foresee, in detail, the long-term impact of China's emergence on other economies and on international trade. Nevertheless, we know that the aggregate impact has to be positive. It is also true, however, that the impact could be asymmetrical. Some sectors could benefit and others might be harmed by Chinese competition. China has a competitive advantage in labour-intensive sectors in particular, and the potential benefits for those sectors are therefore lower. The opposite is true of capital-intensive sectors.³³

³⁰ Per capita GDP is calculated in terms of PPP.

³¹ Using the IMF database.

³² For more information on China growth forecasts, see Wilson and Purushothaman, 2003; Gaulier, Lemoine and Ünal-Kesenci, 2005; Goldman Sachs, 2005.

³³ See *World Economic Outlook* (IMF, 2004).

VII

Chinese and Latin America

trade relations in a wider context

Generally speaking, the impact of Chinese trade on Latin America is positive in the short and medium term. The results of our study are consistent with the findings of IMF researchers and other economists (Lall and Weiss, 2004). On average, and from the point of view of trade impact, Latin America will benefit from increased Chinese demand and growth. In comparative terms, as stressed by IMF, the only net loser will be South Asia, while for Latin America the effect will be positive. For sectors like agriculture in Latin America, the estimated impact of faster Chinese integration around 2020 is clearly positive (with output up by 4%). The clear losers will, however, be sectors such as textiles and countries specialized in labour-intensive manufacturing exports. More detailed analysis is needed, particularly in terms of the trade impact of China on the domestic markets of Latin American countries such as Mexico.

In terms of trade relations, China and Latin America have been intensively developing their relations over the past decade.³⁴ The trade volume between China and Latin America rose from US\$ 2 billion in the early 1990s to US\$ 15 billion in 2001, according to Chinese statistics. Since 2000, Brazilian and Chinese trade has leapt nearly threefold, a blessing for the indebted Brazilian economy and especially for exporters of soybean, steel and iron ore, which account for two thirds of the goods exported. In general, Latin America, has a surplus commodity endowment that coincides with China's needs and its strategy to secure food and energy imports in order to avoid shortages.

One of the consequences of booming Chinese demand for Latin America might not be as positive, however. First, with China's increasing demand for commodities, Latin American countries are deepening their trade specialization toward commodities - goods usually characterized by strong price volatility. In

fiscal terms, this also could increase volatility of fiscal receipts. Second, with the intensification of links with China, the region is becoming more exposed to that country's economy. In 2003, delivery bottlenecks and demand from China bumped up the prices of raw materials and commodities, but Chinese industrial use is also susceptible to recessions and booms. In recent years, tensions have arisen between Brazil and China because of the latter's increasing price-setting power in key Brazilian markets such as iron ore and soybean. The growing dependence of Latin American exports on China should also force the region to be more aware of growth dynamics in Asia and China. In 2003, China became the second-largest destination of Brazilian exports around the world according to ECLAC, a position that has since been maintained.³⁵ In 2004, China accounted for half the increase in Brazil's exports earnings. China is therefore becoming a key driver of Brazilian growth dynamics and is responsible for a quarter of Brazil's official targeted GDP growth. With China trying to cool down its overheated economy, Brazil's export growth could be dampened.

Another issue not developed in this paper that deserves further analyses is that of capital flows. While foreign direct investment (FDI) to Latin America is tumbling, China is experiencing a boom. Between 2001 and 2003, FDI into Mexico declined from nearly US\$ 27 billion to US\$ 11 billion, with an upturn in 2004 and 2005. Brazil also experienced an abrupt slowdown with a 52% drop in FDI to the country in 2003 in relation to the previous year (compared with 30% for Mexico over the same period). Meanwhile, China has simply become the major recipient of FDI in the world, reaching levels of US\$ 55 billion in 2003 (nearly twice the total that flowed into all Latin American countries in 2003 — a mere US\$ 36.5 billion)³⁶ and again around 60 billion both in 2004 and 2005. In other words, over the past

³⁴ Trade contacts between China and Latin America are nothing new. They date back to the 1570s, when Sino-Latin American trade started to flourish across the Pacific with Chinese exports of silk, porcelain and cotton yarn to Mexico and Peru via Manila (see Shixue, 2004).

³⁵ See ECLAC, 2004a.

³⁶ See ECLAC (2004b). In 2003, FDI flows to China almost reached the record level of FDI inflows to Latin America (US\$ 88 billion in 1999).

three years, every week, more than 1 billion dollars of foreign direct investment is flowing into China.³⁷

It is true that much of the FDI to China is in fact related to “round tripping” (Xiao, 2005). Experts have estimated that the scale of this round tripping could be as high as a quarter of total FDI inflows into China. However, the FDI from other regions is increasing. In 2002, United States firms were already investing 10 more times in China than ten years previously. The prospect of a huge domestic market of 1.3 billion consumers has lured countless companies to rush into China, despite the fact that the country’s capitalism is not solidly rooted in law, protection of property rights and free markets.³⁸

Some studies are pointing to “flow diversion” in favour of China, following the full integration of the country’s huge labour force into the international division of labour.³⁹ In the case of Asian countries like Indonesia, Malaysia, the Philippines and Thailand, this process might cause significant losses if foreign direct investment is redirected away from these countries to China. There is a risk of them experiencing a de-industrialization process and a return to the roles they had in the 1950s and 1960s as primary commodity exporters (McKibbin and Thye Woo, 2003). However both the studies and the data show that the impact is rather small. From studying the period 1984 to 2001,

³⁷ On FDI in China, see the research of MIT-based economist Huang (2003). See also the relevant United States Congressional hearings: <http://www.cecc.gov/pages/hearings/092403/huang.php>

³⁸ Investing in China might, however, become a risky business, as underlined by the growing disputes between foreigners and their Chinese partners. In 2004, for example, Syngenta, a Swiss agrichemicals company sued a Chinese competitor for allegedly pirating one of its patented insecticides, joining the growing club of foreign investors resorting to the courts to protect their intellectual property. The profitability of Chinese investments can also be questionable. Foreign brewers have squandered hundreds of millions of dollars in China over the past decade. Meanwhile, according to *The Economist* (2005), the average net profit margin of these investments is meagre: for the top 400 brewers operating in China (including foreign joint ventures) the margin is a mere 0.5%. Compared with Latin America, the data are interesting. According to a study carried out by the *China Economic Quarterly*, direct and indirect profits made by all United States affiliates operating in China amounted to just US\$ 2.8 billion in 2001, nearly half the US\$ 4.4 billion they made in Mexico in the same year (and with a population more than 10 times smaller). According to another empirical study on political control and firm performance in China’s listed companies, the decision-making power of local party committees (relative to the largest shareholders) is positively associated with firm performance (See Chang and Wong (2003); see also Wong, Opper and Hu (2004)).

³⁹ For an empirical analysis applied to Latin America, see Garcia-Herrero and Santabárbara (2004); Chantasawat, Fung and others (2004); for other analyses focused on Asia see Eichengreen and Tong (2005a and 2005b); and Mercereau (2005).

Garcia-Herrero and others concluded that, in terms of FDI, there is no substitution effect negatively affecting inflows of FDI to Latin America. The study does, however, underline the fact that the Chinese effect has become more significant in recent years (1995-2001), with inflows of FDI to China appearing to have affected FDI received by Mexico and Colombia in particular.

The data for 2004 and 2005 are also mixed. They suggest that, while China is still experiencing a boom of FDI, reaching levels of more than US\$ 60 billion, Latin American countries are recovering from the extremely low levels of this current decade. Foreign direct investment towards Brazil jumped by 80% in 2004, reaching more than US\$ 18 billion. Mexico also experienced a recovery of 23%, reaching US\$ 13.6 billion while Chile saw its FDI increase by 66%, to stand at almost US\$ 5 billion. The 1990s golden years of the FDI rush towards Latin American might be over, at least unless privatization processes are repeated.

However, a “blessing in disguise” of Chinese investment in term of capital flows could be the future development of Chinese foreign investment overseas. China is no longer only an absorber of foreign direct investment (FDI), but has also made a leap forward in its investments overseas. Over the period 1991-2003, Chinese foreign direct investment reached roughly US\$ 35 billion. In 2003, China’s outward investment more than doubled year-on-year to stand at over US\$ 2 billion (still a low level, however). This trend was maintained in the years that followed. In 2004, 50% of Chinese FDI went towards Latin America (more than the 30% that went towards Asia). In 2005, Chinese multinationals invested a record level of just under US\$ 7 billion abroad. The bulk went to Asia (60%) but Latin America remained on the radar screens as the second major recipient region of Chinese FDI (16% of the total).

The need to secure food and commodities is boosting FDI through strategic international partnerships. Chinese firms have been targeting resource-sector investments in Angola, Algeria, Australia and Indonesia. Chinese companies are already prominent investors in Africa, mainly in energy and raw materials. According to a survey of 100 investment promotion agencies released by UNCTAD, China ranked fifth (after the United States, Germany, the United Kingdom and France) in the list of leading overseas investors in the near future.⁴⁰ In 2004, Chinese corporations multiplied

⁴⁰ See UNCTAD, 2004.

attempts to boost their investments overseas, not only in other emerging countries but also in developed countries —as underlined by the acquisition of IBM production units by Lenovo (for US\$ 1.75 billion) or the attempts by Chinese firms such as Minmetals to acquire the Canadian Noranda for US\$ 5 billion or efforts by the Chinese oil group China National Offshore Oil Corporation (CNOOC) to acquire Unocal for more than US\$ 13 billion.

Like Japanese companies a few decades ago, Chinese firms seem to be seeking overseas expansion. For Latin America this looks like an opportunity. Not only are major Asian countries (Japan and China) interested in the region, but both have the same aim: to secure the continued flow of raw materials and agricultural products and derivatives. In order to reach that goal, they are both interested in having viable infrastructure in the Americas (more efficient ports, airports, roads, railways). For the region, this is therefore a unique opportunity to play a new competitive game. It also provides the opportunity to implement an industrial strategy in order to avoid an intensification of the commodity trade specialization and stimulate diversification (like in Trinidad and Tobago) towards more value-added industries, while building on the commodity endowment.

Latin America is on the radar of Chinese companies. By 2001, China had set up more than 300 enterprises in Latin America with contractual investments of over US\$ 1 billion. Since then Baosteel, China's biggest steelmaker, undertook the country's largest ever overseas foreign direct investment (worth US\$ 1.5) in Brazil. Plans to invest US\$ 2 billion in the Brazilian aluminium industry were also announced by China, but have yet to be confirmed. China already controls, through the Shougang Group, Peru's major iron-ore mine, owns a major stake in an Ecuadorian oil field and is attempting to produce fuel in the Bolivarian Republic of Venezuela, where it has also reactivated gold mines. Chinese investment is expected in railways and ports in Brazil, and throughout Latin America. Chinese interest in logistical infrastructure is high, with a view to facilitating transport of commodities to ports. In Argentina, China is already committed to invest US\$ 25 million in a grain port and another US\$ 250 million in a road from Argentina to Chile in order to facilitate exports of Argentine raw materials from Chilean ports.

We will also begin to witness agreements such as the one signed in October 2004 by Telefónica (a leading Spanish firm with a regional Latin American franchise)

and the Chinese telecommunication equipment manufacturer Huawei, whereby Telefónica offers Huawei facilities to enter the Latin American market and sell its products to all of Telefónica's Latin American subsidiaries.⁴¹ In 2006, BBVA, the leading Spanish bank, boosted its presence in China by opening offices in Shanghai and Beijing and boosting its Hong Kong base. It also concluded an agreement with the Bank of China in order to capture Chinese remittance flows coming from the United States but also from some Latin American countries like Peru.

Latin American companies are also looking for business opportunities in China, as demonstrated by the official trip that Brazilian President Lula and nearly 400 Brazilian businessmen made to China in 2004. Some large Latin American companies have already rushed into China, such as EMBRAER, the Brazilian Aircraft Corporation, which sells and produces jets in China⁴² or Marcopolo, another Brazilian company that makes bus chassis and is planning to set up a factory in China. They follow in the footsteps of Embraco, a pioneering company that set up a plant in Beijing in 1995. Ten years later, it was followed by the motor producer Weg, which set up the first wholly Brazilian-owned factory in China. Steel producer Gerday also announced the acquisition of a Chinese mill while Belgian-Brazilian Inbev acquired a local beer producer. Clearly, in terms of trade-flow dynamics, capital flows between China and Latin America deserve more analysis and invite further research.

However, beyond the trade and investment impacts, there may be a third and final impact of Chinese trade: a cognitive effect. China's economic development is very

⁴¹ Huawei is a clear example of the internationalization process of Chinese companies. The company hopes to increase its international sales from US\$ 2.3 billion in 2004 to more than US\$ 10 billion by 2008 as part of an ambitious global expansion strategy. In 2003, Huawei also invested 27% of its US\$ 4 billion total investment outside China, reaching markets such as Sweden or Netherlands. The company is now present in more than 70 countries and over 3,000 of the group's 24,000 employees are based overseas. In 2004, two fifths of its US\$ 5 billion revenues were made outside China (*The Economist*, 2005; *Financial Times*, 2005). However, as underlined by Yasheng Huang from the Massachusetts Institute of Technology (MIT), most of the "Chinese champions" are in fact foreign companies. Lenovo, the purchaser of IBM personal computer business in 2004, is a clear example. Technically speaking it is a foreign company as it organized its operations in China as subsidiaries of its Hong Kong branch. The four Chinese companies listed as the most dynamic in Forbes all have their headquarters in Hong Kong. As stressed by Huang, it seems that "China's success has less to do with creating efficient institutions and more about allowing such an escape from inefficient institutions" (Huang, 2005). See also <http://web.mit.edu/yshuang/www/>.

⁴² For a case study, see Goldstein, 2004.

pragmatic. The unique marriage between capitalism and communism is attracting a growing amount of attention. Leading economists like Ricardo Hausmann and Dani Rodrik have already emphasized the trade dimension of this unusual emerging giant, the Chinese economic miracle being a matter not only of export volumes but also, and above all, of their higher quality: what China exports matters (Rodrik, 2006; Hausmann, Hwang and Rodrik, 2006). The very pragmatic economic approach of the Chinese authorities is attracting the attention of

policy makers around the world. The Chinese miracle is neither the result of some “Chicago Boys” process nor the output of a Kemmerer mission. No foreign advisor or guru of economic development ever landed in China. If Jeffrey Sachs advised Bolivia, he never reached Beijing, or at least his advice never did. The lesson that is arising from China is also that there is no magic formula for development, no special key of a paradigm that will open the doors to the miracle of development.

APPENDIX A

Trade competition between China and Latin America

TABLE A.1

Latin America (fifteen countries): annual average CI,^a 1998-2004^b

	1998	1999	2000	2001	2002	2003	2004
Mexico	0.49	0.51	0.52	0.54	0.54	0.52	0.53
Costa Rica	0.31	0.26	0.28	0.33	0.36	0.31	0.33
Brazil	0.25	0.27	0.3	0.3	0.28	0.25	0.26
El Salvador	0.21	0.23	0.23	0.27	0.26	0.24	0.26
Colombia	0.19	0.16	0.19	0.21	0.19	0.18	0.18
Guatemala	0.16	0.15	0.16	0.17	0.16	0.18	0.17
Argentina	0.17	0.16	0.18	0.17	0.15	0.13	0.14
Peru	0.17	0.16	0.17	0.17	0.15	0.13	0.13
Uruguay	0.19	0.17	0.16	0.16	0.13	0.13	0.12
Chile	0.11	0.11	0.11	0.11	0.1	0.09	0.09
Honduras	0.11	0.15	0.12	0.14	0.12	0.09	...
Bolivia	0.11	0.12	0.11	0.11	0.08	0.08	0.08
Panama	0.12	0.11	0.11	0.11	0.1	0.08	0.08
Venezuela (Bol. Rep. of)	0.11	0.08	0.09	0.08	0.07	0.06	0.06
Paraguay	0.07	0.07	0.08	0.07	0.06	0.05	0.05

Source: Authors' own data.

^a The average CI is the arithmetic mean between the coefficient of specialization and the coefficient of conformity.

^b Descending order of the column relating to 2004.

TABLE A.2

Specialization Index (Balassa)

	China	Mexico	Costa Rica	Brazil	El Salvador	Colombia	Guatemala	Argentina	Peru	Chile	Venezuela (Bol. Rep. of)
Wood products	0.43	0.26	0.51	2.26	2.99	0.78	0.91	0.60	0.58	4.10	...
Leather products	3.34	...	0.60	2.88	1.40	0.93	0.66	1.98	-	-	...
Chemicals	0.42	0.34	0.75	0.62	1.16	0.86	1.44	0.68	0.35	0.62	0.29
Processed food	0.47	0.56	2.11	2.93	5.17	1.49	4.73	6.60	4.13	2.53	0.16
Textiles	2.39	0.49	0.23	0.60	2.23	0.71	0.77	0.20	0.68	0.17	...
Minerals	0.28	1.06	...	1.05	0.54	3.63	0.76	1.75	2.56	1.67	7.54
Basic manufactures	0.96	0.69	0.44	1.60	1.39	1.04	0.77	0.75	2.86	3.66	1.09
Non-electronic machinery	0.52	0.84	0.10	0.82	0.11	0.09	0.12	0.22	0.06	0.07	0.05
Fresh food	0.68	0.80	5.67	4.13	3.00	4.14	7.18	5.50	2.52	4.54	0.11
Miscellaneous manufacturing	1.48	1.07	1.39	0.27	0.92	0.44	0.51	0.20	0.35	0.11	0.05
Transport equipment	0.27	1.34	0.03	0.88	...	0.10	...	0.45	...	0.08	0.15
Clothing	3.46	1.29	1.51	0.12	1.93	1.48	1.14	...	2.81	...	...
Electronic components	1.04	1.53	...	0.20	0.24	0.12	0.20	0.05	...	...	...
IT and consumer electronics	2.43	1.75	2.40	0.26	...	...	...	...	...	...	...

Source: Authors' own data based on Intracen, 2004, UNCTAD/WTO.

APPENDIX B

Container handling charges

Country	Cargo Handling Restriction Index	Mandatory Services Index	Price Fixed Agreements Index	Cooperative Agreements Index	Median clearance time (Days)	Port Efficiency Index (1-7)	Crime Index (1-7)	Container Handling Charges		
								World Bank Index ^a	CMPCH Index ^b	LSU Index ^c
Singapore	1	0.38	0	0.33	2	6.76	6.72	117	...	...
Hong Kong SAR	0	0.25	0	0	...	6.38	5.46	...	...	...
Taiwan	0.5	0	0	0	...	5.18	4.49	140	163	...
Japan	0.75	0.13	0.89	1	...	5.16	5.16	250	202	...
Malaysia	0	0.25	0	0.38	7	4.95	5.76	75	...	...
Spain	0	0.06	1	0	4	4.88	6.08	200	105	...
Republic of Korea	0	0.38	0	0	...	4.12	5.22	...	...	...
Thailand	0.5	0.63	0	0.38	4	3.98	5.12	93	...	...
Argentina	0	0.13	0	1	7	3.81	4.52	...	139	...
Vietnam	0	0	0	0.5	...	3.81	5.02	...	...	...
Chile	0	0.25	0.43	1	3	3.76	6.05	202	100	...
China	0.5	0	0	0	7	3.49	4.44	110	...	...
Indonesia	1	0.06	0	0.38	5	3.41	4.06	...	...	...
Mexico	0.5	0.38	0	1	4	3.34	2.61	...	...	...
Venezuela (Bol. Rep. of)	0	0	1	1	11	3.28	3.63	...	...	...
El Salvador	0	0	0	1	4	2.95	2.3	...	...	61
Brazil	0.5	0.75	0	1	10	2.92	4.45	328	292	...
Peru	0.5	0	0.5	1	7	2.88	3.32	...	142	...
India	0	0	0	1	...	2.79	4.28	...	...	...
Philippines	0.5	0	0	0.38	7	2.79	3.51	118	...	...
Ecuador	0	0	0.43	1	15	2.63	3.65	...	139	...
Costa Rica	0	0	0	1	4	2.46	3.28	...	...	68
Colombia	0.5	0.13	0.5	1	7	2.26	1.88	...	...	...
Bolivia	...	...	...	...	9.5	1.61	4.38	...	...	...
Uruguay	0	0	0	1	5	...	...	...	...	...

Source: Clark, Dollar and Micco (2004).

^a US\$/TEU (feet equivalent unit).

^b CMPCH = Maritime Port Chamber of Chile.

^c LSU index of the United States National Ports and Waterways Institute.

(Original: English)

Bibliography

- ADC (Andean Development Corporation) (2006): *América latina en el comercio global. Ganando mercados*, Caracas.
- Ahearne, A., J. Fernald and others (2003): *China and Emerging Asia: Comrades or Competitors?*, International Finance Discussion Paper, No. 789, Washington, D.C., Board of Governors of the Federal Reserve System, December.
- América Economía* (2003): El ataque del dragón, 26 December. Available in www.americaeconomia.com.
- Anderson, J. and E. van Wincoop (2003): Gravity with gravitas: a solution to the border puzzle, *American Economic Review*, vol. 93, No. 1, Nashville, Tennessee, American Economic Association.
- (2004): Trade costs, *Journal of Economic Literature*, vol. 42, No. 3, Nashville, Tennessee, American Economic Association, September. Available in <http://fmwww.bc.edu/ecp/wp593.pdf>
- Bank of Spain (2004): Where is the Chinese Banking Sector Going? Banking Reform in the People's Republic of China, Madrid, April, unpublished.
- BBVA (Banco Bilbao Vizcaya Argentaria) (2003): México y China en el comercio mundial, *Latinwatch*, June.
- (2004): Potencial económico de China y oportunidades para Argentina, *Latinwatch*, April.
- Berges, R. (2004): Implications of eventual changes to China's peg, *Latin America Investment Strategy Implications*, New York, Merrill Lynch.
- Berthelon, M. and C. Freund (2003): On the conservation of distance in international trade, Washington, D.C., University of Maryland/World Bank, November, unpublished.
- Brun, J.F., C. Carrère and others (2005): Has distance died? Evidence from a gravity model, *World Bank Economic Review*, vol. 19, No. 1, Washington, D.C., World Bank.
- Carrère, C. and M. Schiff (2003): On the geography of trade: distance is alive and well, Université d'Auvergne/World Bank, December, unpublished. Available in <http://team.univ-paris1.fr/teamperso/disdir/meta.pdf>
- Clark, X., D. Dollar and A. Micco (2004): Port efficiency, maritime transport costs and bilateral trade, *Journal of Development Economics*, vol. 75, No. 2, Amsterdam, Elsevier, December.
- Chang, E. and S. Wong (2003): Political control and performance in China's listed companies, Hong Kong, University of Hong Kong, March, unpublished.
- Chantasawat, B., K.C. Fung and others (2004): *Foreign Direct Investment in East Asia and Latin America: Is there a People's Republic of China Effect?*, ADBI Discussion Paper, No. 17, Manila, Asian Development Bank.
- Chu, T. and T. Prusa (2004): *The Reasons for and the Impact of Anti-dumping Protection: The Case of People's Republic of China*, East-West Center Working Papers, No. 69, Honolulu, East West Center. Available in <http://www.eastwestcenter.org/stored/pdfs/ECONwp069.pdf>
- De Paiva de Abreu, M. (2005): China's emergence in the global economy and Brazil, textos para discussão, No. 491, Rio de Janeiro, Catholic University of Rio de Janeiro, unpublished.
- Deardoff, A. (2004): *Local Comparative Advantage: Trade Costs and the Pattern of Trade*, Discussion Paper, No. 500, Michigan, University of Michigan Gerald Ford School of Public Policy, February. Available in <http://www.fordschool.umich.edu/rsie/workingpapers/Papers476-500/r500.pdf>
- Deutsche Bank (2004): *China's Financial Sector: Institutional Framework and Main Challenges*, Frankfurt, January.
- Disdier, A.C. and K. Head (2004): Exaggerated Reports of the Death of Distance: Lessons from a Meta-Analysis, Paris, Université de Paris I Panthéon Sorbonne/University of British Columbia, February, unpublished. Available in <http://team.univ-paris1.fr/teamperso/disdir/meta.pdf>
- ECLAC (Economic Commission for Latin America and the Caribbean) (2004a): The effect of China's accession to the World Trade Organization on economic relations with Latin America and the Caribbean, *Latin America and the Caribbean in the World Economy, 2002-2003*, LC/G.2221-P, Santiago, Chile. United Nations publication, Sales No. E.04.II.G.45.
- (2004b): *Foreign Investment in Latin America and the Caribbean, 2003*, LC/G.2226-P, Santiago, Chile. United Nations publication, Sales No. E.04.II.G.54.
- (2005): Strategic perspectives on the relationship between China and the Latin American and Caribbean region, *Latin America and the Caribbean in the World Economy, 2004. Trends 2005*, LC/G.2283-P, Santiago, Chile.
- Eichengreen, B. (2004): *Chinese Currency Controversies*, CEPR Discussion Paper, No. 4375, London, Centre for Economic Policy Research, May.
- (2006): China's exchange rate regime: the long and short of it, March, Department of Economics, University of California at Berkeley, unpublished.
- Eichengreen, B. and H. Tong (2005a): How China is reorganizing the world economy, Berkeley, Department of Economics, University of California at Berkeley/ Bank of England, December, unpublished.
- (2005b): *Is China's FDI Coming at the Expense of other Countries?*, NBER Working Paper, No. 11335, Cambridge, Massachusetts, National Bureau of Economic Research.
- Eichengreen, B., Y. Rhee and H. Tong (2004): *The Impact of China on the Exports of other Asian Countries*, NBER Working Paper, No. 10768, Cambridge, Massachusetts, National Bureau of Economic Research, September.
- Evans, C. and J. Harrigan (2003): *Distance, Time, and Specialization*, NBER Working Paper, No. 9729, Cambridge, Massachusetts, National Bureau of Economic Research. Available in <http://www.ny.frb.org/research/economists/harrigan/papers.html>.
- Financial Times* (2005): The challenge from China: why Huawei is making the telecoms world take notice, 11 January.
- García-Herrero, A. and D. Santabárbara (2004): Does China have an impact on Foreign Direct Investment to Latin America?, document presented at the First LAEBA Conference on the Challenges and Opportunities of the Emergence of China (Beijing), Bank of Spain.
- Gaulier, L. and D. Ünal-Kesenci (2005): *China's Integration in East Asia: Production Sharing, FDI & High-Tech Trade*, Paris, Centre d'études prospectives et d'informations internationales, June.
- Glaeser, E. and J. Kohlhase (2003): *Cities, Regions and the Decline of Transportation Costs*, Discussion Paper, No. 2014, Harvard,

- Harvard Institute of Economic Research, July. Available in <http://post.economics.harvard.edu/hier/2003papers/HIER2014.pdf>
- Goldman Sachs (2005): *How Solid are the BRICs?*, Goldman Sachs Global Economics Paper, No. 134, New York.
- Goldstein, A. (2004): A Latin American global player goes to Asia: Embraer in China, Paris, OECD Development Centre, unpublished.
- Goldshtein, A., N. Pinaud and others (2006): *The Rise of China and India: What's in it for Africa?*, Paris, OECD Development Centre.
- Harrigan, J. and A. Venables (2004): *Timeliness, Trade and Agglomeration*, NBER Working Paper, No. 10404, Cambridge, Massachusetts, National Bureau of Economic Research, March.
- Hausmann, R., J. Hwang and D. Rodrik (2006): What you export matters, Harvard, Harvard University/John F. Kennedy School of Government/Department of Economics, March, unpublished.
- Heston, A. and R. Summers (1997): PPPs and Price Parities in Benchmark Studies and the Penn World Table, *CICUP 97-1*, document presented at the Conference of the Statistical Office of the European Communities (EUROSTAT) Conference (Belgium).
- HSBC (2005): *Wild Geese Flying*, London, HSBC Global Research, December.
- Huang, Y. (2003): *Selling China*, Cambridge, Massachusetts, Cambridge University Press.
- (2005): China's big hope is not Hong-Kong, *Financial Times*, 14 January.
- Hummels, D. (2001a): Toward a geography of trade costs, West Lafayette, Indiana, Purdue University, Krannert School of Management, September, unpublished. Available in <http://www.mgmt.purdue.edu/faculty/hummelsd/>
- (2001b): Time as a trade barrier, West Lafayette, Indiana, Purdue University, Krannert School of Management, July, unpublished. Available in <http://www.mgmt.purdue.edu/faculty/hummelsd/>
- Ianchovichina, E. and W. Martin (2001): *Trade Liberalization in China's Accession to the World Trade Organization*, Policy Research Working Paper, No. 2623, Washington, D.C., World Bank.
- (2003): *Economic Impacts of China's Accession to the World Trade Organization*, Policy Research Working Paper, No. 3053, Washington, D.C., World Bank.
- Ianchovichina, E. and T. Walmsley (2003): *Impact of China's WTO Accession on East Asia*, Policy Research Working Paper, No. 3109, Washington, D.C., World Bank.
- IDB (Inter-American Development Bank) (2004): The emergence of China: opportunities and challenges for Latin America and the Caribbean, document prepared for the Conference "The emergence of China: opportunities and challenges for Latin America and the Caribbean" (Washington, D.C., 1 October 2004), Washington, D.C.
- (2006): *The Emergence of China: Opportunities and Challenges for Latin America and the Caribbean*, Washington, D.C., Inter-American Development Bank/Rockefeller Center.
- IMF (International Monetary Fund) (2004): The global implications of the US fiscal deficit and of China's growth, *World Economic Outlook*, Washington, D.C., April.
- Lall, S. and J. Weiss (2004): *People's Republic of China Competitive Threat to Latin America: an Analysis for 1990-2002*, Discussion Paper, No. 14, Tokyo, Asian Development Bank Institute, October, unpublished.
- LatinFocus* (2004): February.
- Limao, N. and A.J. Venables (2000): Infrastructure, geographical disadvantage and transport costs, *The World Bank Economic Review*, vol. 15, No. 3, Washington, D.C., World Bank.
- Lin, J.Y. (2004): The People's Republic of China future development and economic relations with Latin America, Tokyo, Asian Development Bank Institute, November, unpublished.
- Lora, E. (2004a): Es posible competir con la China? Fortalezas y debilidades de China respecto a América Latina, Washington, D.C., Research Department, Inter-American Development Bank, April, unpublished.
- (2004b): Can Latin America compete with China?, Washington, D.C., Research Department, Inter-American Development Bank, April, power point presentation.
- Maddison, A. (1998): *Chinese Economic Performance in the Long Run*, Paris, OECD Development Centre.
- McKibbin, W. and W. Thye Woo (2003): The consequences of China's WTO accession for its neighbours, *Asian Economic Papers*, vol. 2, No. 2, Cambridge, Massachusetts, The MIT Press.
- Mercereau, B. (2005): *FDI Flows to Asia: Did the Dragon Crowd out the Tigers?*, Working Paper, No. 189, Washington, D.C., International Monetary Fund.
- Rodrik, D. (2006): What's so special about China's exports?, Harvard, Harvard University, John F. Kennedy School of Government, unpublished.
- Rumbaugh, T. and N. Blancher (2004): *China: International Trade and WTO Accession*, Working Paper WP/04/36, Washington, D.C., International Monetary Fund, March.
- Shiue, C. and W. Keller (2004a): *Markets in China and Europe in the Eve of the Industrial Revolution*, NBER Working Paper, No. 10778, Cambridge, Massachusetts, National Bureau of Economic Research.
- (2004b): *Market Integration and Economic Development: a Long-run Comparison*, NBER Working Paper, No. 10300, Cambridge, Massachusetts, National Bureau of Economic Research, February.
- Shixue, J. (2004): Sino-Latin America economic relations and China's perspective on Latin American economy, Beijing, Institute of Latin American Studies/Chinese Academy of Social Sciences, unpublished.
- Soler, J. (2003): Impacto sobre los flujos comerciales entre China y el mundo, in J. Soler (ed.), *El despertar de la nueva China. Implicaciones del ingreso de China en la Organización Mundial del Comercio*, Madrid, Catarata.
- The Economist* (2005): Special report: China's champions, London, 8 January.
- The Wall Street Journal* (2004): Challenges from China spur Mexican factories to elevate aspirations, 5 March.
- UNCTAD (United Nations Conference on Trade and Development) (2004): Prospects for FDI flows, transnational corporations strategies and promotion policies: 2004-2007. Global

- investment prospects assessment (GIPA) research note 1: results of a survey of location experts, TD(XI)/BP/5, Geneva, April.
- Wilson, D. and R. Purushothaman (2003): *Dreaming with BRICs: the Path to 2050*, Global Economics Paper, No. 99, October.
- Wong, S., S. Opper and R. Hu (2004): Shareholding structure, depoliticization, and firm performance: lessons from China's listed firms, *Economics of Transition*, vol. 12, No. 1, Oxford, United Kingdom, Blackwell Publishing.
- Xiao, G. (2005): *Round-tripping Foreign Direct Investment in the People's Republic of China: Scale, Causes, and Implications*, ADBI Policy Research Brief, No. 10, Manila, Asian Development Bank.
- Yang, Y. (2003): *China's Integration into the World Economy: Implications for Developing Countries*, Working Paper WP/03/245, Washington, D.C., International Monetary Fund.
- Yao, Y., F. Li and others (2003): Goldman Sachs' China challenges, Norwegian School of Economics MIB Paper, Bergen, unpublished.
- Young, A. (2000): The razor's edge: distortions and incremental reform in the People's Republic of China, *Quarterly Journal of Economics*, vol. 115, No. 4, Cambridge, Massachusetts, The MIT Press, November.
- (2003): Gold into base metals: productivity growth in the People's Republic of China during the reform period, *Journal of Political Economy*, vol. 111, No. 6, Chicago, The University of Chicago Press, December.
- Zijian Wang, S. and J. Wei (2004): *Structural Change, Capital's Contribution, and Economic Efficiency: Sources of China's Economic Growth between 1952-1998*, working paper, Göteborg, Göteborg University, unpublished.