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DEV research briefing

Brazilian Manufacturing in the Face of Chinese Competition

One of the most significant transformations of the global economy over the past quarter century has been the re-emergence of China as a major economic power. This has posed a major challenge for Brazil's manufacturing sector, the largest and most developed in Latin America.

This Briefing Paper considers the validity of claims that Chinese competition is leading to major changes in the size and role of the Brazilian manufacturing sector. It looks at two aspects of this: competition from Chinese imports in the domestic market, and competition from China in a number of other Latin American countries which are major markets for Brazilian exports of manufactures.

1. The re-emergence of China and concerns for Brazilian manufacturing

China is now the world's second largest economy in terms of GDP after the US and has overtaken Germany as the world's largest exporter. The impact that growth and integration with the global economy has on other countries has given rise to concern since the time of China's negotiations to join the WTO, which it did in 2001, and these concerns have intensified over the past decade. While Brazil has benefited from the surging demand for primary commodities in China and the increases in commodity prices partly arising from this demand, the manufacturing sector has faced increased Chinese competition both at home and abroad.

Brazil has the largest and most integrated industrial sector in Latin America as a result of half a century of import substitution from the 1930s. It now faces a new challenge which has given rise to concern amongst policy makers, industrialists and academics. The Confederação Nacional da Indústria reports that over a quarter of Brazilian firms face competition from Chinese products in the domestic market, and that this rises to over 40% amongst large firms. More than half of Brazilian exporters compete with Chinese products in their export markets. The Federacão das Indûstrias do Estado de São Paulo (FIESP) and a number of sectoral associations representing industries affected by Chinese competition have been calling for increased government support and implementation of safeguard measures against China for several years.

Currently there is a debate in Brazil over "deindustrialization". Some of the proponents of the claim that Brazil is deindustrializing attribute this in part to the increased competition from China, as well as the recent overvaluation of the currency. They also point to the "primarization" of Brazilian exports, in other words the increased share of primary commodities within the country's export basket.

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2. Chinese competition in the domestic market

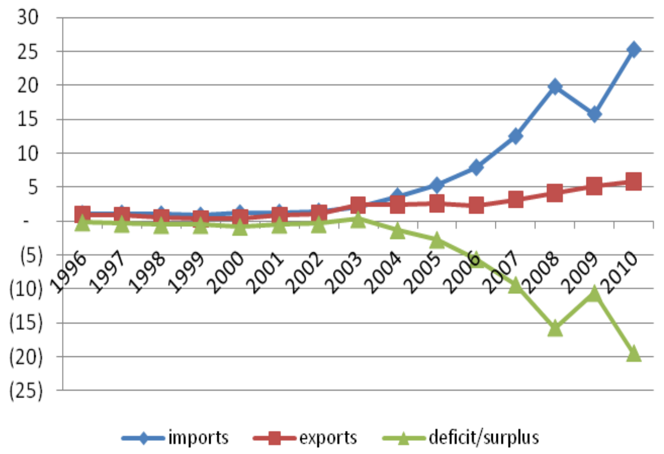
Trade between Brazil and China

Trade between Brazil and China has grown dramatically over the past decade and for most of this period the overall balance showed a surplus for Brazil. This was largely due to the growing volume and increased prices of primary commodities that Brazil exports to China.

The picture for trade in manufacturing is totally different. China's share of Brazilian imports of manufactures rose from less than 2% in 1996 to 16% in 2010, while exports to China accounted for only 4.5% of total Brazilian exports of manufactures.

As a result Brazil had a growing trade deficit with China in manufactured goods which after falling in 2009 as the economy slowed down in the midst of the international crisis, jumped to US$19.5 billion in 2010 (Figure 1). The bulk of this trade deficit is made up of intermediate goods (US$10.7 billion) and capital goods (US$5.4 billion) which between them accounted for 82% of the overall deficit.

Figure 1: Brazilian Trade in Manufactures with China, 1996-2010 (US$ billions)



Source: Own elaboration from Aliceweb/MDIC data.

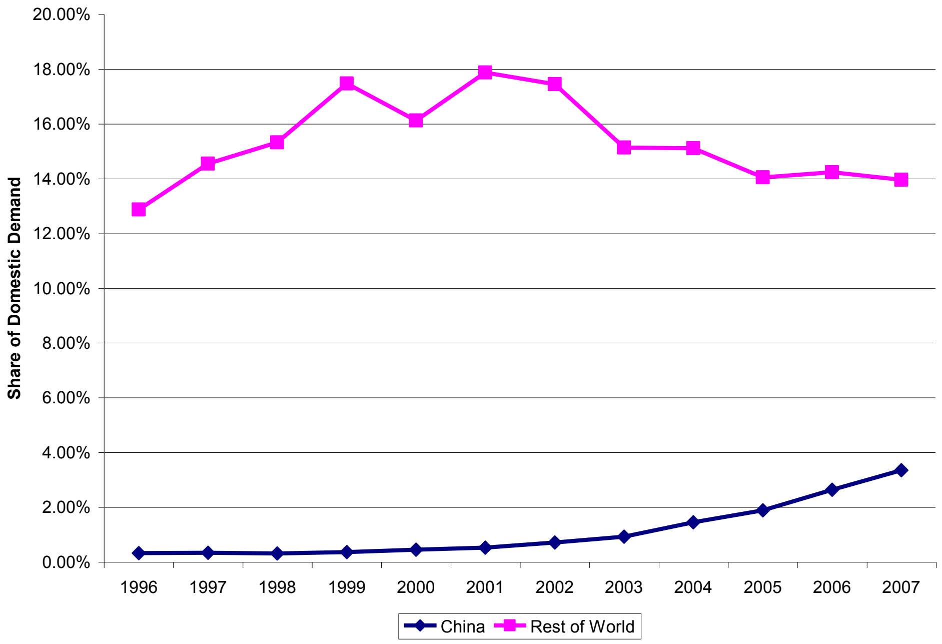
Penetration of Chinese goods in the Brazilian market

In terms of the impact of Chinese competition on Brazilian manufacturing, the share of Chinese imports in total consumption of industrial products in Brazil is a more relevant indicator than the trade deficit. Figure 2 shows that the shares of imports from China and from the rest of the world have evolved rather differently.

The increased openness of the Brazilian economy saw the latter increase in the late 1990s to a peak of 18% in 2001. During this period, imports from China remained relatively limited reaching only just over ½% in 2001. From 2001 onwards the share of Chinese imports increased steadily, while that of imports from the rest of the world fell to stabilize at around 14% in 2005-2007.

Although in aggregate imports from China represented only around a thirtieth of total consumption of manufactures in Brazil in 2007, this average masked considerable differences between industries. Industries where over 10% of the domestic market was taken by Chinese products included office equipment; optical and photographic instruments; travel and leather goods; data processing equipment; and a number of electrical and electronics products such as radios, televisions and mobile phones.

Figure 2: Imports as a Share of Domestic Demand in Manufacturing, 1996-2007



Source: own elaboration from IBGE, Pesquisa Industrial Annual and Secex/MDIC data.

The impact of Chinese competition on domestic production and employment

A major concern in Brazil in recent years has been the impact of Chinese imports on domestic production. This has led to accusations of unfair competition and dumping on the part of Chinese producers resulting in some cases to anti-dumping measures being applied by the Brazilian authorities.

However it is also possible, given the different evolution of import penetration from China and the rest of the world in recent years, that Chinese goods have increased their share of the Brazilian market mainly at the expense of imports from other countries rather than by displacing domestic manufacturers. Table 1 estimates the impact of Chinese imports on domestic producers and on imports from the rest of the world in three periods, prior to China's WTO accession, during the first three years of transition following accession and the subsequent three years from 2004 to 2007. It shows, not surprisingly, that the impact of China was quite limited before it became a member of the WTO but then increased in the two subsequent periods.

What is most interesting to note is that the impact on domestic production was less significant than the effect on other exporters to Brazil. In other words more than half of the increased penetration of Chinese goods on the Brazilian market came at the expense of imports from other countries and did not displace Brazilian manufacturers.

Table 1: Estimated displacement of other imports and domestic production by imports from China (1996-2007)

	1996-2001	2001-2004	2004-2007
Total gain by China (Reais mn.)	787	3,718	9,016
Gain by China from ROW (Reais mn.)	197	2,225	5,099
Gain by China from domestic producers (Reais mn.)	590	1,493	3,917
% from ROW	25.0%	59.8%	56.6%
% from domestic producers	75.0%	40.2%	43.4%

Source: own elaboration from IBGE, Pesquisa Industrial Annual and Secex/MDIC data.

Table 2: Overall Impact of Chinese Imports on Industrial Employment, 1996-2007

	1996-2001	2001-2004	2004-2007
Loss of employment to Chinese imports	-6,312	-9,168	-32,726
Gain from exports to China	8,121	12,813	-4,870
Growth in total industrial employment	320,111	867,210	767,703

Source: own elaboration from IBGE, Pesquisa Industrial Annual and Secex/MDIC data.

The finding that less than half of the increase in import penetration from China has been at the expense of the market share of Brazilian manufacturers also has implications for the impact on the labour market.

Table 2 shows estimates of the impact on employment derived from the effects on domestic production shown in Table 1. Not surprisingly the loss of employment in the period to 2001 was relatively low and even between 2001 and 2004 the loss associated with increased import penetration from China was less than the gain from increased exports of manufactures to China.

It is only since 2004 that there have been net losses of employment as a result of trade with China, but even these account for less than ½% of the total additional industrial employment created between 2004 and 2007. An econometric analysis of the effect of Chinese imports on employment over the period 1996-2007 also found that although there was a statistically significant negative effect, this was relatively small. The impact of Chinese competition on average wage levels was even weaker.

Thus although Chinese competition has undoubtedly affected some firms and industries and it continues to intensify, the overall impact of imports from China on Brazilian manufacturing had not, up to the late 2000s, led to significant displacement of local production or resulted in major job losses.

3. Is China displacing Brazilian exports to Latin America?

Latin America is the most important export market for Brazilian manufacturers but the impact of Chinese competition on Brazil's exports to the region has received relatively little attention. Brazil's four main markets in Latin America are Argentina, Chile, Mexico and Venezuela. In the past five years China has overtaken Brazil as a source of imports in both Chile and Venezuela and despite the preferential access that Brazil enjoys to the Argentinean market through Mercosur, and its larger share of that market, its lead over China has narrowed considerably.

Although the decline in Brazil's share in industrial imports by the four Latin American countries in recent years has coincided with an increase in Chinese exports to those markets, this does not necessarily mean that it has been caused by Chinese competition.

In order to explore such a relationship, much more disaggregated data is required in order to establish that the growth of Chinese imports have indeed affected products which Brazil exported to those markets. Using highly disaggregated data (6-digits of the Harmonized System classification) the extent to which Chinese imports displaced Brazilian goods was estimated for each of the four countries using an extension of constant-market-share analysis developed by J. Chami Batista (2008).

Table 3: Displacement of Brazilian Industrial Exports by China, 1996-2009

	Loss of exports (US$ million)			% of Brazilian exports		
	1996-2001	2001-2004	2004-2009	1996-2001	2001-2004	2004-2009
Argentina	2,3	-18,8	-735,2	0.1%	-0.3%	-6.8%
Chile	-14,4	-20,1	-300,8	-1.2%	-1.0%	-14.4%
Mexico	-7,6	-42,8	-197,8	-0.4%	-1.2%	-6.6%
Venezuela	-7,5	2,3	-180,7	-0.8%	0.2%	-8.6%

Source: own elaboration from UN COMTRADE data

Table 3 shows that the impact of Chinese competition on Brazilian exports to the other Latin American countries was insignificant in the period prior to China's accession to the WTO in 2001 and that even after this it remained low.

However following Hu Jintao's visit to Latin America in 2004 and the granting of "market economy" status to China by Argentina, Chile and Venezuela, Chinese competition began to have a major impact on Brazilian exports to the region. The largest loss in absolute terms was felt in Argentina where Brazilian exports would have been more than US$700 million greater in 2009 had it not been for the increased market share of China.

In relative terms, the greatest impact was felt in Chile which of the four countries is the one with the strongest trade links with China and which signed a free trade agreement with China in 2005. Here Brazilian exports were 14.4% lower than they would have been without increased competition from China. China also had a significant impact on Brazilian exports to Mexico and Venezuela in the period after 2004.

While there is clear evidence that Chinese exports have displaced Brazilian manufactures in several Latin American countries, the effect that this has had on industrial output is limited because Brazilian industry produces mainly for the domestic market. However the trend does pose a challenge to the future of regional integration in Latin America as intra-regional imports are replaced by goods from China.

References

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