UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

# BACKGROUND NOTE ON PROCESSING TRADE AND CHINA'S EXTERNAL IMBALANCES

UNCTAD contribution to the G20 Framework Working Group

12 August 2011

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# Contents

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## *Introduction*

China's persistent current account surplus, the largest share of which comes from merchandise trade, has been scrutinized from many corners including within the G-20. The surplus has become a source of tension with China's largest trading partners, particularly the United States. By looking at China's bilateral merchandise trade surplus vis-à-vis the United States—which had increased from less than $30 billion at the end of the 1990's to a record-high of $181 billion in 2010—some analysts have argued that growing trade with China has led to "unfair" competition from low-cost firms in China, leading to persistent calls pressures for a more rapid appreciation of the yuan vis-à-vis the dollar. As processing trade plays a significant role in explaining this bilateral surplus, it is important to have a deeper look at it.[1]

A closer inspection of processing trade shows that this bilateral imbalance is in fact multilateral in nature. Hence, any bilateral appreciation of the yuan vis-à-vis the dollar would only have limited effects on China's trade surplus with the United States since its effect on the export side would be partly offset by a similar effect on the import side. Moreover, several factors in China's recent development point towards some improvements regarding its imbalances. First, the share of exports related to processing trade in China—while remaining high—has been slowly declining over the last years. Second, while domestic value-added in processing trade accounted for only a small margin of China's exports, the share of domestic inputs seems to have increased since 2000 (Li and Syed, 2007). As this trend continues, it is expected that the ongoing real effective exchange rate appreciation would have larger impacts on reducing China's imbalances in the future.

Overall processing trade and global imbalances call for multilateral solutions. In this aim, UNCTAD has called for a practical and effective indicator—the Real Effective Exchange Rate (REER)—to differentiate between sustainable and unsustainable trade imbalances and to alert about exchange rate misalignment changes.

Section I reviews the rapid expansion of trade within production networks in Asia, describes briefly China's export structure and illustrates the impact of production-sharing on statistically recorded value of trade. While, recent trends point toward a declining importance of processing trade in China's total trade, it would be unrealistic to expect China's processing trade surplus to fall substantially in the short run.

[1] Processing trade reflects the part of China's trade that refers to the exported goods that are assembled and processed in Chinese factories with imported inputs.

Section II describes the evolution of global current-account imbalances since the global crisis and contrasts the bilateral trade relation between China and the United States and China and the rest of the world.

Section III reviews the recent evolution of the real effective exchange rate (REER) and China's international competitiveness by looking at the evolution of REER based on the unit labour costs (ULC). While China's ULC-based REER has appreciated sharply since 1994, this period has coincided with a rise in China's current account. This is partly due to the fact that China's singular external sector—where foreign enterprises play a major role—incorporates high labour productivity and combines it with low (albeit growing) absolute wages. As a result, the profit margins remain large enough for foreign producers to keep prices low in order to gain market shares. This advantage of foreign investors will recede only slowly, as the process of catching up will take many years, or even decades, given the original low level of wages and low domestic capital stock in China compared with the most developed economies.

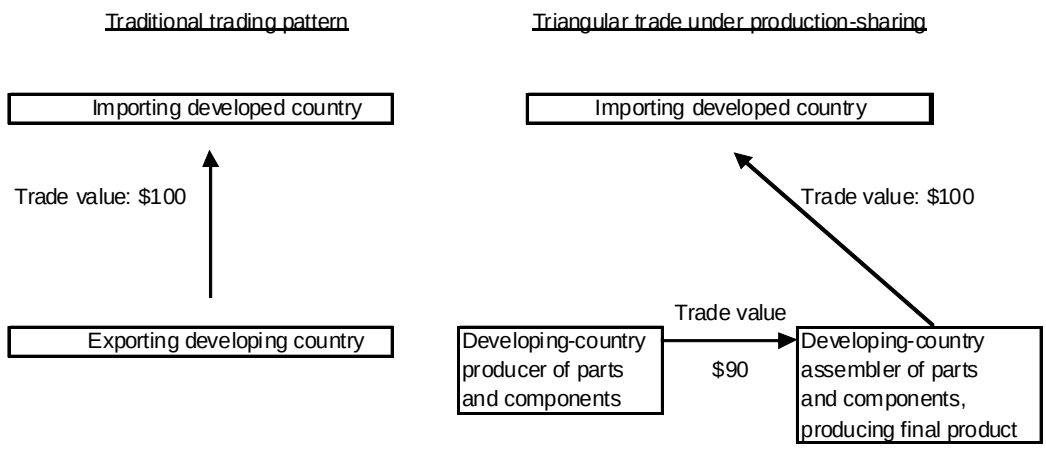
Section IV concludes on the need to use the Real Effective Exchange Rate (REER) as a practical and effective indicator to differentiate between sustainable and unsustainable trade imbalances and as a guiding principle to avert lasting exchange rate mis-alignments.

## *I. Production sharing and recorded trade*

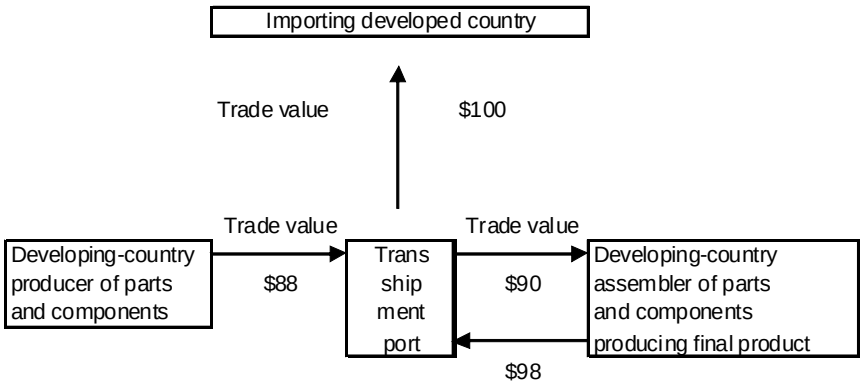
As discussed in greater detail in the 2002 and 2005 editions of UNCTAD's *Trade and Development Report*, rapid economic growth and industrialization in East Asia have been accompanied by a marked trend towards greater integration and specialization in the region, which has led to a rapid expansion of trade within production networks. Lower transport and communication costs, and reduced trade and regulatory barriers have facilitated production sharing on a global basis. While production-sharing has been generally concentrated in labour-intensive products, it has also involved the location at different sites of labour-intensive segments of otherwise technologically complex production processes. This production-sharing process allows firms to exploit the comparative advantage of different locations to the production of particular components, including scale economies, and differences in labour costs across countries. Hence, firms operating in East Asian economies have been particularly successful in spreading production activities in clothing, footwear and electronics across this sub-region, taking advantage of labour-cost differentials.

International production networks promote a new pattern of trade, in which goods travel across several locations before reaching final consumers, and the total value of trade recorded in such products exceeds their value added by a considerable margin. As illustrated in chart 1, trade of such products within production networks can cause a very substantial increase in recorded trade among developing countries, without any increase in final consumption in developed countries. This rise in recorded South-South trade is higher the larger the import content of a good assembled in a developing country and exported to another developing country. South-South trade can even increase particularly fast if the trade within production networks involves passing through transhipment ports, such as Hong Kong (China) and Singapore.

**Chart 1: Schematic illustration of the impact of production-sharing on statistically recorded value of South-South trade**




| | | | |
|---|---|---|---|
| South-South trade: | 0 | South-South trade: | 90 |
| South-North trade: | 100 | South-North trade: | 100 |
| Developing-country exports: | 100 | Developing-country exports: | 190 |



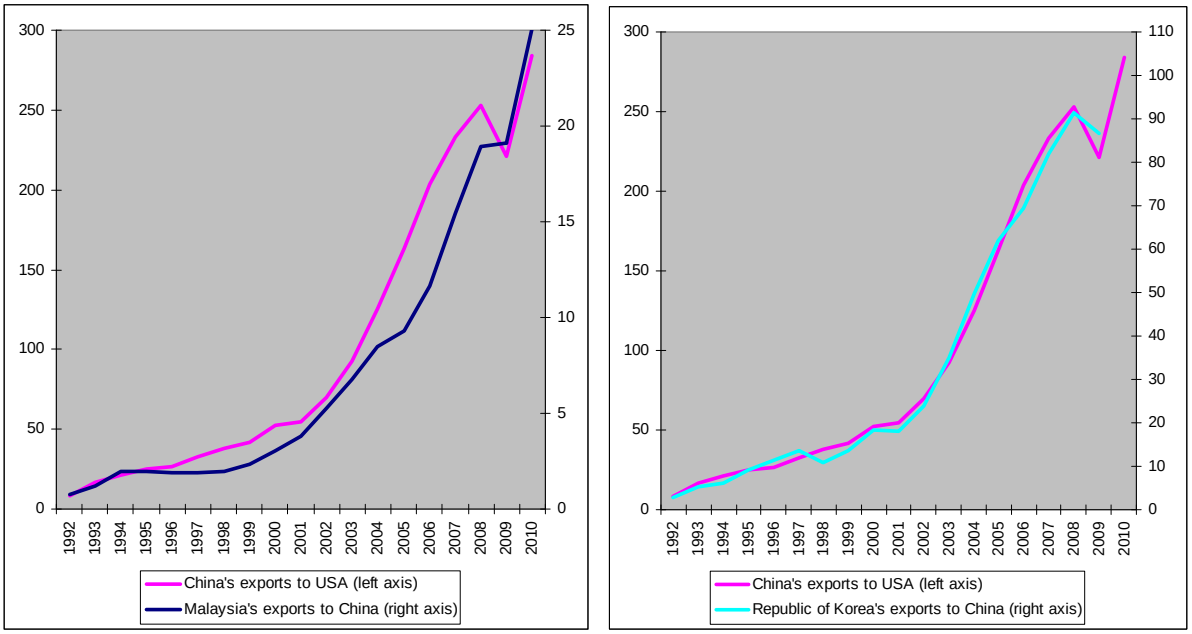

| | |
|---|---|
| South-South trade: | 276 |
| South-North trade: | 100 |
| Developing-country exports: | 376 |

Source: UNCTAD secretariat.
Note: The numbers used are fictitious.

Chart 2 illustrates how triangular trade leads to a rise in recorded South-South trade. It shows that the strong rise in manufactured exports from the Republic of Korea and Malaysia to China since the early 1990s has been accompanied by an almost equally strong rise in China's

exports to the United States. This has two important implications. First, the magnitude of South-South trade in manufactures has depended to a considerable extent on United States import demand for products for which production sharing within East Asia plays an important role. Thus until recently the rise in South-South trade has partly been the result of strong growth in the United States economy. At the same time, the trade impulse was amplified by strong intraregional trade linkages. But it also means that negative economic growth in the United States in 2009 had reduced not only United States imports of finished products, but also China's import growth. Second, it also means that only a fraction of the value added of the product actually comes from China. Therefore, an appreciation of the renminbi vis-à-vis the dollars would have only a minor effect on processing trade flows. As long as the bilateral exchange rates between the United States and the countries that provide inputs to China would remain unchanged, there would not be a significant change of the price of China's processing-trade product in dollar, since its exchange rate elasticity the price in dollar is rather low.

**Chart 2: Triangular trade in manufactures between East Asia and the United States, 1992–2010** (billions of dollars)




Source: Comtrade

Data from China's Customs Statistics shows that between 2006 and 2011, more than 80 per cent of "processing trade" exports belong to foreign-invested enterprises and more precisely the foreign-owned enterprise. While processing trade is slowing declining owing to its rapid economic development, it still represents a significant share of total Chinese trade.[2] The shares of processing trade surplus stood at 135 per cent of the total trade surplus and at 112 per cent of the current-account surplus in 2010. As recall in Hong, Vos and Yao (2008), from a microeconomic point of view, processing trade as a whole must run a surplus, because the value of outputs (which is also the value of exports) of those enterprises engaged in processing trade must be larger than the value of inputs (which is the value of imported input plus the value-added in China) in order for these enterprises to be profitable. Therefore, as

[2] It has diminished from 49 per cent of total trade in 2000 (55 per cent of exports and 42 per cent of imports) to 39 per cent in 2010 (with 47 per cent of exports and 30 per cent of imports).

long as China continues to be used as an export platform, it would be unrealistic to expect China's processing trade surplus to drop substantially in the short run.[3]

## *II. The evolution of external imbalances since the crisis*

Examining the evolution of global current-account imbalances since the global crisis erupted raises doubts about the effectiveness of initiatives that have been undertaken to reduce global imbalances. In current dollars terms, global current-account imbalances peaked in 2007–2008, shrank in 2009 – when the volume and value of global trade declined sharply – and are widening again in 2010–2011 as trade and GDP recover.[4] Changes in prices played an important role in these evolutions: the decline in commodity prices, especially oil, helped reduce the deficit in most European countries and the US in 2009. Yet, the recovery of commodity prices contributed to widen these deficits in 2010 and the first half of 2011; this is reflected in the changing surpluses of fuel exporting countries (Chart 3). Such changes in the current account balances are unrelated to any savings or investment decisions of economic agents in exporting countries.

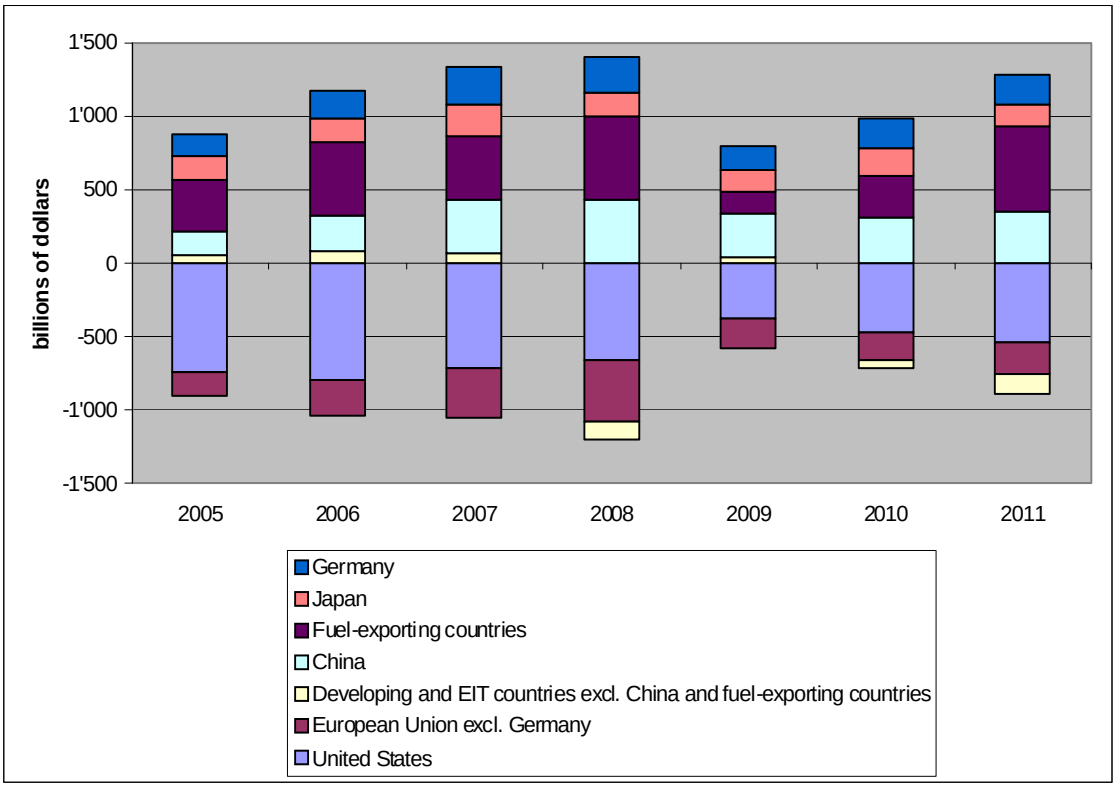
By contrast, a decomposition of growth into domestic demand and net exports shows that growth in China has been largely driven by an increase in domestic demand. This suggests that the country is honouring its commitment to do its part in helping to reduce global imbalances.[5] Yet, China's rebalancing process might not be equally significant in all its bilateral trade relations. In particular, the recent evolutions of China's merchandise multilateral trade balance with the world except the United States contrasts with China's bilateral merchandise trade balance vis-à-vis the United States (chart 4). The former shows a sharp decline since 2008 while the latter shows only a temporary relapse in 2009 before it reached a record-high in 2010. As processing trade plays a significant role in the value of the bilateral trade surplus between China and the United States, it would be misleading to place the onus solely on China for its increasing bilateral trade surplus with the United States.

[3] In a somehow different exercise, in UNCTAD Trade and Development Report 2010, we simulated a reduction of consumer spending in the United States and an increase of consumer spending in China to their historic levels (both measured as a share of GDP). The results indicate that the assumed increase in the share of China's consumption in GDP would have a minor impact on trade flows for individual countries, except for China itself. Additional references are presented in appendix of this note.

[4] Some progress has been made if current-account imbalances are measured in terms of their share in each country's GDP. In 2010, the current-account deficit countries such as the United States and Spain roughly halved from its pre-crisis levels (falling from 6 per cent to 3.2 per cent and from 10 per cent to 4.5 per cent, respectively); but it did not fall significantly in the United Kingdom. On the other hand, developed economies that had a surplus reduced that surplus rather moderately. In Germany, it remained at almost 6 per cent of GDP in 2010, mainly due to its trade surplus. In Japan, the surplus was around 3.5 per cent of the GDP, owing mainly to net income revenues, which, being a rather stable source of income, are likely to maintain this surplus in the foreseeable future. Among the developing countries with a current-account surplus, China's surplus has fallen sharply from its pre-crisis peak of over 10 per cent of GDP to around 5 per cent in 2010, and it is probably even lower in 2011. This is partly due to a decline in its trade surplus, but also to its continuing GDP growth, which is more rapid in current United States dollars than in constant yuan due to a real appreciation of its currency.

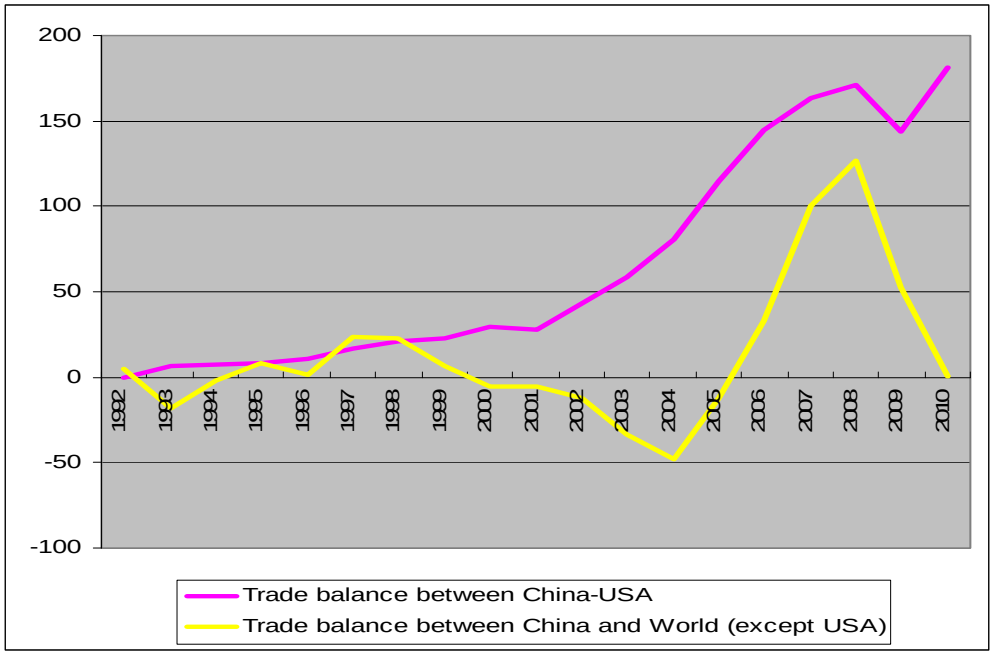
[5] In other countries, such as Japan and members of the euro area, it is net exports that have been the major engine of growth. In the United States, net exports have played a near-neutral role in the recovery. While Germany and Japan have greatly benefited from brisk export growth to China, which outpaced their growth in imports, the increase in United States exports was balanced by a similar increase in its imports.

**Chart 3: Current-Account Balances, selected countries and country groups, 2005-2011**
(Billions of current dollars)




**Source:** UNCTAD secretariat calculations, based on UN/DESA, *National Accounts Main Aggregates* database, and *WESP 2011: Mid-year Update*; and IMF, *World Economic Outlook* database.
**Note:** Data for 2011 are forecast.

**Chart 4: "China-USA" vs. "China-Rest of the World" Merchandise Trade Balances, 1992-2010**
(Billions of current dollars)



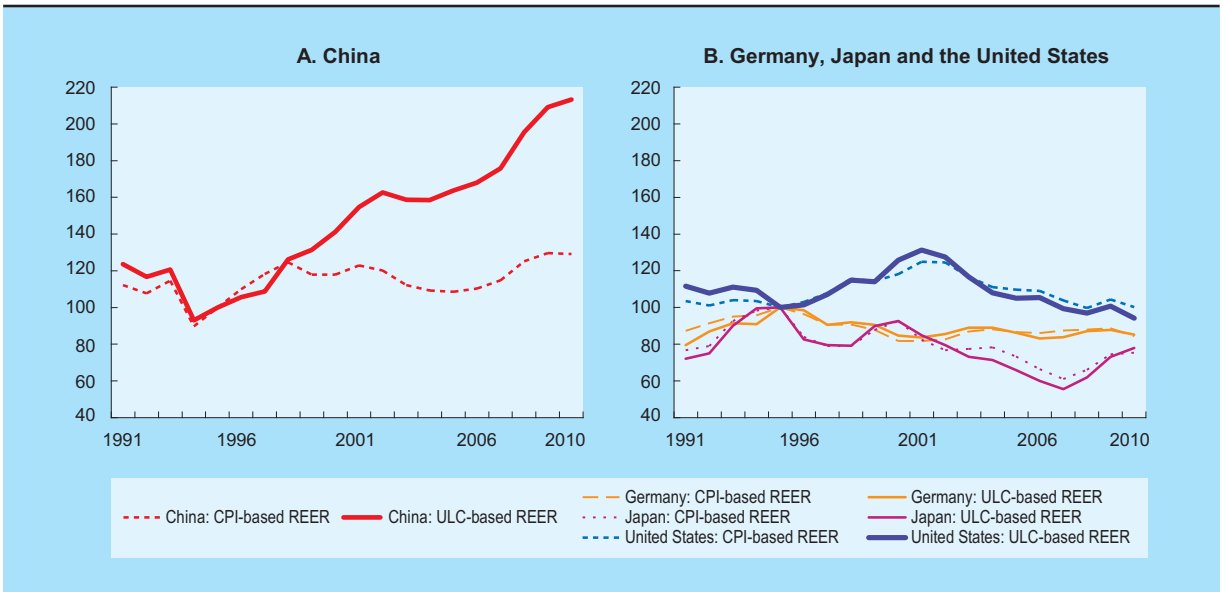

Source: Comtrade

Therefore, UNCTAD has advanced a line of argument that focuses on the measurement of the real effective exchange rate (REER), one of the only practical and effective indicators that can help differentiating between sustainable and unsustainable trade imbalances.

## III. The real effective exchange rate and China's international competitiveness

The REER measures the overall competitiveness of a country vis-à-vis these trading partners, and a real effective appreciation implies a loss of competitiveness of the country. There can be significant differences in the measurement of the REER, depending on whether it is calculated on the basis of changes in the consumer price index (CPI) or on changes in unit labour costs (ULC). Chart 5 shows these two indicators for the four largest economies using 1995 as the basis (a year with low trade imbalances among the G-20). For all three countries the two measures move more or less in tandem. By contrast, in China the CPI-based REER has remained reasonably constant since the end of the 1990s, but the ULC-based REER has appreciated sharply since 1994, reflecting a reduction of the high-profit margins of the exporting firms. ULC-based REER rose consistently and strongly between 2000 and 2010, indicating an overall loss of competitiveness of this economy by about 40 per cent during this period. While the data used for this exercise do not cover the entire Chinese labour force, there are strong indications that wages in the Chinese economy have risen rapidly in recent years (ILO, 2010). An important indication of this trend of strongly rising nominal and real wages is the booming private domestic consumption.

**Chart 5: Evolution of CPI- and ULC-based real effective exchange rates, selected countries, 1991–2010** (Index numbers, 1995 = 100)




Source: UNCTAD secretariat calculations, based on IMF, *International Financial Statistics* database, and Economist Intelligence Unit.

Thus, on the basis of the ULC-based REER over several years, a rise in China's current account until 2008 has coincided with a loss of international competitiveness of its producers. This can be explained by the particularities of China's economic development over the past

two decades: China is the only large economy where foreign enterprises dominate exports and imports. Affiliates of foreign firms account for more than 60 per cent of all Chinese exports, and most of them use advanced technologies, incorporating high labour productivity and combining it with low absolute wages. This combination results in extraordinarily high profit margins and allows companies to conquer global markets by means of lower costs and prices. Even if nominal and real wages and the ULC have been rising strongly in China over the past 10 years, the profit margins remain large enough for foreign producers to keep prices low in order to gain market shares. This advantage of foreign investors will recede only slowly, as the process of catching up will take many years, or even decades, given the original low level of wages and low domestic capital stock in China compared with the most developed economies.

Contrary to what has been suggested by a number of prominent economists, [6] China should not be taken to task for its international trade performances on the grounds that it has been keeping its nominal exchange rate fixed. What matters for competition in international trade is not the nominal exchange rate, but the REER and how it changes, because it is the latter measure that should be used to estimate the impact of domestic costs on trade flows and imbalances. Even if some uncertainty concerning the validity of the data is taken into account, China has undoubtedly experienced a significant real currency appreciation in recent years, since nominal wages and real wages have been rising much faster vis-à-vis productivity than in other major economies.

Since China serves as a hub of manufacturing production, employing the most advanced technology available globally, the ULC-based REER is the most reliable indicator of the country's competitiveness. If labour costs increase sharply in relation to productivity, as has occurred in China, competitiveness falls vis-à-vis producers in countries where the increase in labour costs has been lower. If, at the same time, the REER based on a price index remains unchanged, the economic situation of producers nevertheless deteriorates, because they accept falling profit margins to maintain their trade volumes. In this case, the ULC-based REER indicates the true outcome, whereas the CPI-based REER misleading.

## *IV. Looking at the Real Effective Exchange Rate is the key*

Exchange rate movements that are persistently inconsistent with achieving balanced global competitiveness positions provide strong evidence of dysfunctional global currency markets. National governments may intervene in currency markets in pursuit of national policy objectives, either to offset market failures and prevent exchange rate misalignment or to attain a competitive advantage. But exchange rates are intrinsically a multilateral issue that requires multilateral management. In the case of processing trade UNCTAD has argued that any change in the bilateral exchange rate between the yuan and the dollar is unlikely to have a big impact on the bilateral trade flows between China and the United States. What matters over the long-term is the evolution of the REER.

Over the last years, China's ULC-based REER has appreciated strongly. While the bilateral merchandise trade balance between the United States and China has not rebalanced yet owing partly to the nature of processing trade, there are a number of indicators that shows that China's overall current-account and trade surpluses have begun to move steadily in that direction.

[6] See, for example, Bergsten CF (2010).

The Seoul Action Plan includes a commitment to "move toward more market-determined exchange rate systems, enhancing exchange rate flexibility to reflect underlying economic fundamentals, and refraining from competitive devaluation of currencies." If this commitment heralds a move towards floating exchange rates and withdrawal of government intervention, the Action Plan will fall short of its ambition to achieve global economic stability. The evidence is overwhelming: left on their own, currency markets are a primary source of instability and systemic risk.

As proposed in UNCTAD's *Contribution to the G20 Mutual Assessment Process (MAP)* in early 2011, keeping the real exchange rate constant through multilateral agreements and concerted central bank actions would open the door for establishing greater order in global monetary affairs and making trade more effective for development. The use of the REER as a practical and effective indicator to differentiate between sustainable and unsustainable trade imbalances would lead to a simple and viable approach to averting exchange rate misalignments. The real effective exchange rate based on unit labour costs appears as the most useful benchmark against which distortions on trade flows and capital flows can be measured at the same time.

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## *Appendix I: The potential impact of a global rebalancing on trade flows and employment*

The discussion on global rebalancing often relates to rebalancing in the context of the national economies in the United States and China. UNCTAD's *Trade and Development Report 2010* (chap. 2) focuses on the implications of these processes for other countries as well,[7] by simulating a reduction of consumer spending in the United States and an increase of consumer spending in China to their historic levels (both measured as a share of GDP). Based on the GTAP-model, the simulations show that these changes would lead to a slowdown in the rate of GDP growth in the United States that would not be compensated by a stimulus of similar size from increased consumption in China. With respect to global imbalances as a whole, the results indicate that the assumed adjustments in China and the United States would cause substantial changes in these two countries' trade accounts: for China, the trade surplus as a share of GDP would decline by more than eight percentage points, so that only a fairly small surplus position would remain, while for the United States, the trade balance as a share of GDP would improve by more than five percentage points and transform the trade balance into a slight surplus (columns 2 and 3 in table 1). However, important trade imbalances would persist in other countries: for example, trade surpluses would decline only a little in Germany, in a number of developing countries in East and South-East Asia, and in the countries in the group comprising West Asia and North Africa. This is because the absolute value of China's household consumer spending is much smaller than that of United States households, its import content is smaller, and the composition of China's imports of consumer goods differs greatly from that of the United States.[8] The net effect of the two adjustments taken together would be deflationary for the world economy, while they would not be sufficient to unwind the large global imbalances.

Looking at developments in exports and imports separately (columns 4 and 5 in table 1), the results indicate that for the United States a sharp decline in imports would be accompanied by an even sharper increase in exports. Apart from China, whose trade balance would deteriorate mainly because of its own adjustment efforts, the greatest decline would occur in Thailand, followed by Mexico, Japan (which would experience the strongest percentage decline in exports), Germany and Singapore. In most countries, particularly developing countries in Asia – notably China, India and Thailand – the deterioration in the trade balance would be caused mainly by a decline in exports rather than by an increase in imports, as indicated by the difference in the growth rates reported in columns four and five of the table. The strong increase in United States exports (a large proportion of which consists of machinery and electronic equipment, as well as services) and the strong decline in its imports would be facilitated by the sharp depreciation of the dollar (column 7 in table 1).[9]

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[7] For a simulation on how China could contribute to an orderly global rebalancing using a package of policies to stimulate domestic consumption, see Hong P, Vos R and Yao Keping (2008).

[8] The first two of these three elements also underlie the simulation exercise in Zhang W, Zhang Z and Han G (2010). *How does the US credit crisis affect the Asia-Pacific economies? Analysis based on a general equilibrium model.* Journal of Asian Economics, 21(3): 280–292, who otherwise focus on financial linkages, rather than the trade linkages emphasized here.

[9] The set-up of the Global Trade Analysis Project (GTAP) model implies that external imbalances caused by an exogenous shock are removed and the external balance is restored by changes in the prices of primary factors, downwards to spur exports and reduce imports, or upwards to reduce exports and increase imports. The relationship between the prices of primary factors across different countries may be likened to an exchange rate. Real and nominal exchange-rate changes coincide because GTAP, as most other computable general equilibrium models, deals with real variables, with no money involved.

Additional results (not shown here) indicate that the bulk of the increase in United States exports would be directed to developed countries, namely EU members and Japan, while the bulk of the decline in United States imports would particularly affect EU members, China and Japan.

Table 1

GTAP simulation results of the impact of rebalancing in the United States and China on trade flows and factor prices, selected countries and country groups

| | | | | | | | Change in wages | |
|---|---|---|---|---|---|---|---|---|
| | Change in trade balance [percentage points] | Share of trade balance in GDP % | Change in export volume % | Change in import volume % | Change in terms of trade % | Appreciation % | Unskilled labour % | Skilled labour % |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| China | -8.2 | 1.8 | -17.6 | 3.7 | 2.9 | 7.1 | 6.6 | 8.8 |
| United States | 5.2 | 0.6 | 41.9 | -15.4 | -7.2 | -8.2 | -8.1 | -8.5 |
| China, Hong Kong SAR | -1.4 | 14.9 | -1.2 | 0.6 | -0.1 | 2.3 | 2.3 | 2.2 |
| China, Taiwan Province of | -1.0 | 14.3 | -0.6 | 1.4 | 0.3 | 2.1 | 2.1 | 2.0 |
| Indonesia | -1.1 | 0.8 | -2.8 | 1.0 | 0.3 | 2.7 | 2.7 | 2.7 |
| Malaysia | -1.6 | 42.4 | -0.5 | 1.3 | 0.3 | 2.3 | 2.1 | 1.9 |
| Philippines | -1.3 | 3.6 | -1.4 | 0.8 | -0.1 | 2.1 | 2.1 | 2.0 |
| Republic of Korea | -1.6 | 1.5 | -3.4 | 1.5 | 0.8 | 2.9 | 3.1 | 2.9 |
| Singapore | -1.7 | -2.6 | -0.3 | 1.3 | 0.5 | 2.7 | 2.7 | 2.7 |
| Thailand | -3.7 | 5.8 | -3.7 | 1.9 | 0.4 | 2.9 | 2.9 | 2.9 |
| Rest of East and South East Asi | -1.6 | 2.0 | -2.2 | 0.1 | -0.1 | 2.1 | 2.0 | 1.7 |
| India | -1.2 | -7.7 | -6.6 | 2.7 | 1.1 | 3.6 | 3.8 | 3.8 |
| Rest of South Asia | -1.2 | -17.1 | -6.7 | 1.7 | 0.8 | 3.3 | 3.2 | 3.3 |
| West Asia and North Africa | -1.5 | 13.8 | -1.7 | 2.6 | 0.7 | 2.8 | 2.9 | 2.6 |
| Sub-saharan Africa | -1.7 | 1.2 | -2.5 | 3.1 | 0.7 | 3.1 | 3.2 | 3.3 |
| Argentina and Brazil | -1.8 | 0.8 | -7.7 | 5.2 | 2.1 | 4.1 | 4.0 | 4.1 |
| Mexico | -2.1 | -2.1 | -6.0 | 4.9 | 3.3 | 3.2 | 3.3 | 3.4 |
| Rest of Developing America | -1.6 | -1.8 | -3.8 | 3.4 | 1.5 | 2.7 | 2.8 | 2.9 |
| Canada | -1.7 | -2.7 | -2.9 | 5.7 | 3.1 | 2.3 | 2.4 | 2.4 |
| Germany | -1.9 | 3.8 | -3.8 | 2.3 | 0.6 | 3.2 | 3.1 | 3.1 |
| Rest of EU-25 and EFTA | -1.6 | -3.5 | -3.6 | 2.0 | 0.7 | 3.2 | 3.2 | 3.2 |
| Australia and New Zealand | -1.5 | -1.8 | -5.5 | 3.8 | 1.5 | 3.6 | 3.7 | 3.6 |
| Japan | -2.0 | -1.0 | -12.7 | 5.7 | 2.3 | 4.3 | 4.3 | 4.4 |
| CIS, excl the Rep of Moldova | -0.8 | 6.6 | -1.2 | 1.4 | 0.4 | 2.9 | 3.0 | 2.8 |
| Rest of the world | -1.8 | -9.6 | -2.3 | 1.7 | 0.3 | 2.9 | 2.9 | 2.6 |

**Source**: UNCTAD secretariat calculations.
**Note**: All changes are relative to 2008. An improvement in the terms of trade indicates that the price of exports increased more (or fell less) than the price for imports. An appreciation indicates an increase in the price for primary factors, which may be likened to an appreciation of the real exchange rate. The definition of skilled and inskilled labour and the wage ratio between skilled and unskilled labour is explained in the text.

Simulations were also undertaken for a scenario that assumes adjustments occur separately in China and the United States. Doing so gives some indications as to the importance of adjustment in either of these two countries for global rebalancing. The results for the scenario in which adjustment is confined to China (cf. table 2) indicate that the assumed increase in the share of China's consumption in GDP would have a minor impact on trade flows for individual countries, except for China itself. They also indicate that the countries in East and South-East Asia taken together would benefit the most. This latter finding is partly due to the fact that these countries and China are part of the same international production networks, so that the simulated adjustments, helped by an appreciation of the renminbi by about 5 per cent, would imply a relocation of the exit point of these networks from China to other developing countries in the region. This finding also mirrors the results generally obtained from GTAP

models that simulate an increase in China's exports, where adverse effects are usually concentrated in the other Asian developing countries (*TDR 2002, chapter V*).

Table 2

GTAP simulation results for the impact of rebalancing in China on trade flows and factor prices, selected countries and country groups

| | | | | | | | Change in wages | |
|---|---|---|---|---|---|---|---|---|
| | Change in trade balance [percentage points] | Share of trade balance in GDP % | Change in export volume % | Change in import volume % | Change in terms of trade % | Appreciation % | Unskilled labour % | Skilled labour % |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| China | -6.7 | 3.4 | -14.6 | 2.9 | 2.8 | 4.8 | 4.3 | 6.4 |
| United States | 0.2 | -4.4 | 1.4 | -1.2 | -0.4 | -0.3 | -0.3 | -0.3 |
| China, Hong Kong SAR | 0.2 | 16.5 | 0.1 | -0.3 | -0.1 | 0.4 | 0.5 | 0.4 |
| China, Taiwan Province of | 0.2 | 15.5 | 0.1 | -0.2 | 0.0 | 0.2 | 0.2 | 0.1 |
| Indonesia | 0.2 | 2.2 | 0.5 | -0.2 | -0.1 | 0.2 | 0.2 | 0.1 |
| Malaysia | 0.3 | 44.3 | 0.0 | -0.3 | -0.1 | 0.1 | 0.0 | -0.1 |
| Philippines | 0.3 | 5.3 | 0.3 | -0.3 | -0.1 | 0.0 | 0.0 | -0.1 |
| Republic of Korea | 0.3 | 3.5 | 0.6 | -0.3 | -0.2 | -0.1 | -0.2 | -0.2 |
| Singapore | 0.3 | -0.6 | 0.1 | -0.2 | -0.1 | -0.2 | -0.2 | -0.2 |
| Thailand | 0.7 | 10.3 | 0.6 | -0.5 | 0.0 | 0.0 | 0.0 | -0.1 |
| Rest of East and South East Asi | 0.4 | 4.0 | 0.4 | -0.4 | -0.2 | 0.1 | 0.0 | -0.2 |
| India | 0.2 | -6.3 | 1.1 | -0.3 | -0.1 | 0.0 | 0.0 | -0.1 |
| Rest of South Asia | 0.2 | -15.6 | 0.9 | -0.4 | 0.0 | 0.0 | 0.0 | -0.1 |
| West Asia and North Africa | 0.2 | 15.6 | 0.3 | -0.3 | -0.1 | -0.1 | 0.0 | -0.1 |
| Sub-saharan Africa | 0.3 | 3.3 | 0.4 | -0.6 | -0.2 | -0.1 | -0.1 | -0.2 |
| Argentina and Brazil | 0.3 | 2.8 | 1.3 | -0.5 | -0.1 | -0.2 | -0.2 | -0.3 |
| Mexico | 0.2 | 0.2 | 0.7 | -0.1 | 0.0 | -0.1 | -0.1 | -0.2 |
| Rest of Developing America | 0.3 | 0.1 | 0.6 | -0.4 | -0.1 | -0.1 | -0.1 | -0.2 |
| Canada | 0.2 | -0.8 | 0.6 | -0.2 | -0.1 | -0.1 | -0.2 | -0.2 |
| Germany | 0.3 | 6.0 | 0.6 | -0.5 | -0.2 | -0.2 | -0.2 | -0.2 |
| Rest of EU-25 and EFTA | 0.3 | -1.6 | 0.6 | -0.4 | -0.1 | -0.2 | -0.2 | -0.2 |
| Australia and New Zealand | 0.3 | -0.1 | 0.9 | -0.6 | -0.2 | -0.1 | -0.1 | -0.1 |
| Japan | 0.4 | 1.4 | 2.0 | -1.7 | -0.7 | -0.4 | -0.4 | -0.4 |
| CIS, excl the Rep of Moldova | 0.1 | 7.5 | 0.3 | -0.2 | -0.1 | -0.1 | -0.1 | -0.1 |
| Rest of the world | 0.3 | -7.5 | 0.5 | -0.2 | 0.0 | -0.1 | -0.1 | -0.2 |

**Source**: UNCTAD secretariat calculations.
**Note**: All changes are relative to 2008. An improvement in the terms of trade indicates that the price of exports increased more (or fell less) than the price for imports. An appreciation indicates an increase in the price for primary factors, which may be likened to an appreciation of the real exchange rate. The definition of skilled and inskilled labour and the wage ratio between skilled and unskilled labour is explained in the text.

Given the relatively small overall impact of adjustment when confined to China, it is no surprise that the results for the scenario in which adjustment is confined to the United States (not shown here) are similar to those for the scenario that assumes simultaneous adjustments in China and the United States, shown in table 1. The only major difference is that the impact on China's trade balance in the scenario where adjustment is confined to the United States is much smaller than in the scenario in which adjustment occurs in both countries at the same time. The fact that the impact on China also is significantly smaller than for the vast majority of the other regions shown in table 1 suggests that the United States trade deficit is indeed multilateral in nature, rather than the result of bilateral trade flows between the United States and China. In terms of employment, these results suggest that rebalancing China's growth trajectory will do little for other developing countries in terms of compensating for adverse effects stemming from adjustment in the United States. This is because China imports mainly intermediate goods (including parts and components), and primary commodities (primarily energy products and metals), which are not very employment intensive.