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## The People's Republic of China and its neighbors: Evolving patterns of trade and investment

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**ADB Institute Discussion Paper No. 33**

**The People's Republic of China and its Neighbors:  
Evolving Patterns of Trade and Investment**

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## What are the Issues?

The East Asia region, encompassing Southeast Asia, has been undergoing a process of 'natural' economic integration with the growth trade and investment between countries of the region. In recent years, however, much has been made of the economic impact of the re-emergence of the People's Republic of China (PRC) as a regional (and indeed global) economic power. In the neighbouring countries of East and Southeast Asia the threat from Chinese competition is feared at least as much as the opportunities created by its rapid growth are welcomed. What is the economic theory of this and what do we know from empirical studies on the likely balance of effects? This chapter first addresses the conceptual issues before turning to the evidence.

At a static level conventional trade theory implies that having a large neighbour growing rapidly over an extended period of time, whilst unilaterally lowering its barriers to trade through its WTO accession and contemplating further reductions through its entry into various regional free trade agreement can only be strongly positive for regional economies.<sup>1</sup> This freeing of trade with PRC will allow specialization on the basis of comparative advantage. How far different partners will benefit depend on their trade and production structures and how far these are complementary to those of PRC. As a large economy with a strong FDI presence PRC can produce a great variety of goods from the simple to the highly sophisticated in a technological sense. This is sometimes seen as posing a threat to a wide variety of industries in the region. However standard theory says it is impossible by definition for PRC to have a comparative advantage in everything and that it is comparative not absolute advantage that matters in determining trade flows. Labour in PRC may still be cheap in an absolute sense, but what matters in terms of determining comparative advantage is its cost relative to the cost of capital and land. Economic efficiency in PRC will be determined by the relative scarcities of its factors of production (their 'opportunity costs'), not by their efficiency in comparison with factors elsewhere. Furthermore within different categories goods from the simple to the most sophisticated, there will be goods in which PRC will specialize, whilst importing others from its trading partners in the region. From this perspective possible loss of market share either in domestic or export markets should not pose a threat to regional producers, if they can shift to other products where their comparative advantage is greater. In theory if wages and prices adjust flexibly to demand and supply factors there can be no long-run problem for PRC's regional partners. If export markets for one activity are lost, provided prices and wages fall the relative attractiveness of this activity for investors will also decline and if there are no supply side constraints resources will move into other more promising lines of production, where comparative advantage is greater. Hence conventional trade theory sees absolutely no cause for concern in the region over 'PRC's re-emergence' and many new trading opportunities.

The story becomes more nuanced once we allow for dynamic considerations. Here PRC's emergence can be seen as part of the broader process of globalization, defined loosely as the expansion of trade and international capital flows in response to the liberalization of international commodity, service and financial markets and the decline in transport and communications costs. The picture regarding specialization becomes less clear once one introduces the possibility of cumulative gains in efficiency over time

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<sup>1</sup> For an introduction to international trade theory there are many textbooks; see for example Krugman and Obstfeld (2003) for an excellent introduction. Kawai (2005) charts the growing interdependence between economies in the region and the moves towards trade and other forms of co-operation.

arising from learning by doing and economies of scale. Now 'first mover advantages' can be important so if an industry is established in one country its comparative advantage and competitive strength will grow relative to late-comers. Hence both history and geography, that determine where an initial production centre emerges, can influence long-run trade patterns. To these concerns can be added realistic assumptions about the inflexibility of economies, since with price and wage inflexibility and real world barriers to entry in various markets there can be no guarantee that resources can shift readily from declining to expanding sectors in response to changing comparative advantage. Hence the more inflexible is an economy the greater is the potential risk from trade competition.

From this dynamic perspective in relation to PRC's regional economic impact there are both positive and negative forces to be assessed and the net outcome will be an empirical question. On the positive side we have what we can term a 'demand effect' and a 'production specialization effect'. In relation to demand a strongly growing Chinese economy will create a market for regionally produced goods. In addition this growing market allows regional specialization with neighbouring economies either building on an existing comparative advantage relative to PRC (for example in primary commodities like foodstuffs and raw materials) or developing new niches (for example in the supply of parts and components for goods assembled in PRC as part of global production networks). The negative side arises from what we can term a 'competitive effect'. Here PRC's growth may create difficulties for its neighbours in a number of ways. Rapid expansion of Chinese exports may erode neighbors' market share (either domestically or in third countries) and this will potentially lower income, where two conditions hold; first where increasing returns to scale and dynamic externalities are important, so that output expansion is cumulative and once market share is lost it is difficult to recapture and second where resources are inflexible, so new opportunities are not taken advantage of. Given the size of the Chinese economy there may also be competitive price effects, where PRC's demand for natural resources (such as energy products and metals) is strong enough to raise world prices and thus increase the import prices neighbouring economies have to pay (that is a negative terms of trade shock). Finally, and potentially most significantly in the eyes of many observers, PRC may be competition with many of its neighbors for the receipt of capital inflows, particularly FDI. FDI is seen by many as a catalyst for development principally due to the technology, management and marketing expertise that it is judged to bring to recipient economies. If FDI flows to the region in any year are limited, then increased receipts by PRC will be at the expense of others and competition to attract foreign firms will be a 'zero-sum game' with the success of one country at the expense of others. This is the opposite interpretation from the production specialization story, where with FDI driving the spread of global production networks, with genuine specialization and an emerging regional division of labour, FDI to one country may be complementary to, not competitive with, FDI to its neighbour.

Assessing the validity of these arguments requires detailed empirical analysis. We do not yet know all of the answers, but a body of empirical work now exists. In the following sections we survey this empirical literature selectively. To organize the discussion we focus on the evidence on demand, production specialization and competitive effects separately, although in principle they may be related and isolating their impact will be difficult.

## Demand Effects

The strong growth of PRC's economy is now well established with official statistics giving an average annual growth of around 8% over the last 15 years. In addition the Chinese economy has become considerably more open to foreign trade since the beginning of trade policy reform in the mid-1990's culminating in WTO accession in 2001.<sup>2</sup> This has meant a strong growth in regional exports to PRC and a growing trade deficit between PRC and its neighbors as its imports from them rise more than its exports to them. Rising exports to PRC have provided a major boost to demand in its neighbors and internationally there is a close empirical relationship between growth of exports and growth of national income.

Tables 1 and 2 summarize the trade balance and export and import growth for PRC, the US (its largest export market) and its three main partners in the region, Japan, the Republic of Korea and Singapore. Trade grew very quickly in the first half of the 1990s as the economy opened up to foreign trade. Since then a clear pattern has emerged of a rising trade surplus with the US and a rising deficit with the neighbouring countries. In the recent period 1995-2003 PRC's imports from Japan grew by 17% annually, from Singapore by 19% annually and from the Republic of Korea by as much as 40% annually. These are historically very high growth rates, which show little sign of slackening as yet.

Table 1 PRC's trade balance with selected partners

	1990 Trade balance \$ mill	1990 Trade balance \$ mill/ Exports %	1995 Trade balance \$ mill	1995 Trade balance \$ mill/ Exports %	2003 Trade balance \$ mill	2003 Trade balance \$ mill/ Exports %
Japan	1555	17	-541	-1	-14728	-25
The Republic of Korea	196	45	-3600	-54	-23039	-115
Singapore	1166	58	101	3	-1615	-18
USA	-1278	-24	8620	35	58695	63

Source: calculated from data in ADB (2005)

Note: Trade balance is PRC's exports minus imports; negative sign indicates a deficit.

<sup>2</sup> For example for the second half of the 1990's a 'demand decomposition analysis' by the author shows strong negative import substitution in most categories of manufactures in PRC; in other words import share grown much more rapidly than domestic production most particularly in 'medium and high technology' products; for details see Weiss and Jalilian (2004) table 5.

Table 2: PRC's export and import growth (% per annum)

Exports to	1990-95	1995-2003	1990-2003
Japan	22.6	9.2	14.3
The Republic of Korea	54.8	13.7	29.5
Singapore	11.0	11.6	11.4
USA	30.8	16.5	22.0
Imports from			
Japan	26.6	11.7	17.5
The Republic of Korea	75.5	17.9	40.0
Singapore	27.7	14.1	19.3
USA	17.9	9.3	12.6

Source: calculated from data in ADB (2005)

Note: growth is calculated as logarithmic rates.

Disentangling the effect of rising incomes in PRC and the process of regional trade liberalization on imports requires a form of economic modelling and there have been many such exercises. The standard approach is now to apply a form of 'computable general equilibrium model'. Typically such models cover a range of countries and sectors and are based on so-called market-clearing assumptions (so that flexible prices equate demand and supply in all markets and macro imbalances are assumed away).<sup>3</sup> Critics argue that such models, which are based on very restrictive assumptions, often omit some of the key dynamic considerations noted earlier. However although their results and the projections derived from them should be treated as suggestive rather than definitive, they do have the advantage of being able to isolate the possible impact of a particular policy change. A baseline version of the model reflecting the status quo can be run and compared with an alternative version where a key policy has changed, thus allowing a counterfactual comparison of 'with and without' policy scenarios.

#### *Effects of Trade Liberalization*

In this spirit the effects of PRC's WTO entry on the region were examined in a number of models and more recently the impacts of different free trade area configurations, such as PRC joining ASEAN, and a wider East Asian Free Trade Area (ASEAN plus three) have also been assessed. The broad conclusion is that the rising trade surpluses of its neighbors with PRC observed at present will grow significantly in the future as trade is liberalized and rising trade will in turn create rising income. To illustrate table 3 shows the projected trade balances with PRC in 2020 and the impact of WTO accession found in one such study. It indicates a strong long-term trade surplus for the main regional economies in their trade with PRC, whilst the US and EU have strong trade deficits.

<sup>3</sup> Examples of such approaches based on the widely-used GTAP model are Roland Holst (2002), McKibbin and Woo (2003), Ianchovina and Martin (2003) and Chirathivat and Mallikamas (2005). A more general discussion of the benefits of closer regional co-operation is Pangestu and Gooptu (2004).

PRC's trade reform accompanying its accession to WTO accounts for a significant proportion of this surplus for Japan, the Republic of Korea and Taipei,China. Table 4 shows the estimated change in income for various countries due respectively to PRC's WTO accession, its joining ASEAN and the wider ASEAN plus 3 (PRC, Japan and the Republic of Korea).

Table 3 Projected bilateral trade balance with PRC (\$ billion)

Country	Change in trade balance due to PRC's WTO accession 2020	Projected actual trade balance 2020
Japan	4	5
The Republic of Korea and Taipei,China	34	135
ASEAN	3	41
USA	-61	-166
EU	-46	-66

Note: Negative figure indicates a deficit with PRC.

Source: Roland Holst (2002) table 4 and (2003) table 2.2

Table 4 Income effects relative to baseline 2015 due to regional free trade arrangements (% change)

Country	PRC Unilateral Liberalization	PRC joining ASEAN	PRC, Japan and The Republic of Korea joining ASEAN
PRC	2.9	1.4	4.0
Japan	0.3	0	1.6
The Republic of Korea	0.6	-0.1	3.7
Taipei,China	1.0	-0.3	-1.0
ASEAN	0.5	2.5	4.0

Source: Lee et al (2004) table 1.

Table 4 shows estimates of changes in income in 2015 as a result of various trade policy changes relative to what income would be in 2015 under the scenario of PRC's WTO accession but no further policy reform. The first option is where PRC unilaterally removes all barriers to trade remaining as part of the package agreed with WTO. The second scenario is where PRC joins ASEAN and the third is where Japan and the Republic of Korea also join. As is expected in this type of modelling exercise the more countries that join a free trade area the greater are the benefits for those included. Hence the ASEAN plus3 scenario gives the greatest benefit to all regional economies apart from Taipei,China, which is assumed to be excluded.

There are other estimates, which give the same broad conclusion but different numerical results. For example, Urata and Kiyota (2003) find the East Asian Free Trade Area brings smaller benefits to Japan, the Republic of Korea and PRC, compared with the figures in table 4, but much larger benefits to some ASEAN countries. For example gains

to Thailand are nearly 16% of income in the baseline, and those to Viet Nam are 8%. However the baseline used and a range of other assumptions vary between the studies.

The precise results of such exercises need to be treated with caution but they serve to underline the positive interpretation conventional trade theory puts on the combined impact of PRC's growth and trade liberalization.

### **Production Specialization Effects**

In these exercises part of the income increases estimated for regional economies will be due to demand growth, but part will also be due to the changing composition of production based on increased intra-regional specialization, where goods with a comparative advantage, that is a lower opportunity cost, are expanded relative to goods with a higher opportunity cost. The potential for future regional specialization will be strongly influenced by the extent of current and potential dissimilarities in trade and production structure between PRC and its neighbors. PRC's rapid macro economic growth is changing its trade and production structure rapidly but as a broad generalization it is still accurate to say that relatively simple low technology products still dominate its exports (at around 45%), although the share of high technology products is rising rapidly (at around 25%). Significantly the share of resource-based products at around 10% is relatively low and indicates a relative scarcity of natural resources in PRC relative to the vast labour-power available. Formal tests of similarity of export structure for example find that PRC in 2000 was closer to the Republic of Korea and Taipei, China ten years earlier than to most of the ASEAN economies in 2000.<sup>4</sup> It is still very dissimilar from Japan. Given its current structure the expectation is that in the medium term PRC will import high technology goods and equipment from Japan and the Republic of Korea, and foodstuffs, some natural resource –based products, and various parts and components for use in the production of high technology final goods from its ASEAN partners. This will give a future regional production specialization that underpins the positive income and trade projections noted above.

The modelling exercises referred to earlier have industry-level projections that support this view, although the level of aggregation at which such models are constructed means that detailed predictions of individual product growth cannot be derived from them. For example, table 5 shows predicted net trade balances as a proportion of trade (or intra industry competitiveness) for PRC in its trade with Japan, the Republic of Korea and Taipei, China and ASEAN in 2020 on the assumption of an East Asian Free Trade Area.<sup>5</sup>

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<sup>4</sup> The data on the technology content of exports come from Lall and Albaladejo (2004) and refer to 2000. The same authors have a simple test of similarity of export structure by regressing data on the structure of exports at the 3 digit level for PRC on the same data for its neighbors. The correlation coefficient derived in this way is a test of similarity.

<sup>5</sup> Intra-industry competitiveness is defined for product  $i$  as  $(X_i - M_i) / (X_i + M_i)$ , where  $X$  refers to exports and  $M$  to imports. In table 5 a negative sign indicates imports exceed exports for PRC. A zero indicates exact balance of imports and exports.



Table 5 Intra-industry competitiveness: PRC viz-a viz trading partners in East Asian Free Trade Area.

Industry	Japan	The Republic of Korea and Taipei, China	ASEAN	Total
Rice	1.0	1.0	-0.94	-0.47
Other grains	1.0	1.0	1.0	-0.48
Oil seeds	1.0	1.0	1.0	-0.78
Sugar	1.0	-1.0	-1.0	-0.86
Other crops	0.96	0.92	-0.54	-0.48
Livestock	0.72	0.44	-0.64	-0.51
Energy	0.96	-0.28	-0.74	-0.36
Processed food	0.94	0.63	-0.45	-0.15
Textiles	0.04	-0.69	0.41	-0.12
Clothing	0.89	0.73	0.99	0.92
Leather goods	0.94	-0.26	0.80	0.72
Basic manufacturing	-0.06	-0.38	0.09	-0.02
Motor vehicles	-0.81	0.52	0.76	-0.32
Other transport equipment	-0.06	-0.54	0.85	0
Electronic goods	-0.32	-0.42	0.02	0.06
Other manufactures	-0.11	-0.05	0.44	0.22
Construction	-0.32	0.31	1.0	-0.48
Services	0.26	0.32	0.34	0.24

Source: Roland Holst (2003) table 3.13

Table 5 confirms this broad picture with PRC running trade deficits with Japan and the Republic of Korea in Electronics, the most technologically sophisticated industry shown in the table. It runs a significant surplus with all partners in the important low technology clothing sector and is heavily in deficit with ASEAN in important foods like rice, sugar and livestock. However the industry categories used are too aggregate to identify the expected flows of manufactured parts and components from ASEAN to PRC.<sup>6</sup> The figure of 0.02 for Electronics trade with ASEAN indicates PRC's exports only marginally exceed her imports and this overall balance masks very substantial projected exports and imports in Electronics (that is 'intra-industry trade') between the two partners.

Broadly similar results are reported by Chirathivat and Mallikamas (2005) in their assessment of the consequences for ASEAN countries of PRC entering into the free trade area. For selected countries substantial gains in exports and production are projected for the primary products rice (from Thailand and Viet Nam), sugar (also from Thailand and Viet Nam), and vegetable oils (from Malaysia). Textiles and chemical and rubber products are other activities that are projected to expand significantly. However

<sup>6</sup> East and South East Asia as a region has already witnessed a substantial growth in intra-industry trade, particularly in the exchange of electronics products between countries as part of global production networks; see the data in Chantasawat et al (2004) table 4.

within manufacturing the results of the model do not highlight enhanced trade in parts and components.<sup>7</sup>

In general there is empirical support for the view that a regional division of labour is emerging based around the large and dynamic Chinese market. If this is the case are there any remaining grounds for concern that PRC's re-emergence may create threats as well as challenges? To address this we examine the case for 'competitive effects'.

### Competitive Effects

Although it is clear that there is considerable scope for complementary relations between PRC and both its high income and low income neighbors, with the former supplying PRC with high technology goods and the latter primary products and raw materials, it is also the case that currently there is still significant overlap in exports to third country markets. This is particularly the case with the ASEAN economies in the important US market, where PRC has increased its share of this market very substantially often at the expense of ASEAN exporters.

#### *Loss of Market Share*

The extent of 'threats' in this regard can be illustrated by taking the share of a country's exports and dividing them into various categories depending on how the country's share of the world market is changing relative to PRC. Lall and Albaladejo (2004) conduct this exercise for the main ASEAN economies, as well as the Republic of Korea and Taipei, China. They identify five categories:

- Direct threat:* where PRC gains world market share and the other country loses it;
- Partial threat:* where both gain, but PRC gains more;
- No threat:* where both gain world market share, but PRC's exports grow more slowly;
- Reverse threat:* where the country gains world market share and PRC loses it;
- Mutual withdrawal:* where both the country and PRC lose world market share.

Taking the change over the 1990's table 6 classifies selected countries' exports in 2000 into these five categories.

Table 6 PRC threat in the world market 2000 (% of total exports)

Category	Singapore	Taipei, China	The Republic of Korea	Malaysia	Thailand	Indonesia	The Philippines
Direct threat	23.5	22.9	26.2	28.7	15.1	19.9	5.8
Partial threat	40.4	34.0	28.0	56.5	61.6	48.3	44.0
No threat	32.0	39.3	42.2	5.0	15.9	10.7	44.3

<sup>7</sup> This may be partially a problem with the level of aggregation used, but is also likely to reflect the logic of the model. In the model the ASEAN sectors that expand most rapidly are by definition those that face the highest Chinese import tariffs prior to the scenario of PRC joining ASEAN. Hence tariff reductions drive trade flows. More dynamic considerations, for example related to FDI flows, that are more likely to stimulate intra-industry trade in parts and components are not fully incorporated in the model. This is also a point that can be made in connection with the model used in Roland Holst (2003).

Reverse threat	3.4	3.4	2.9	6.3	6.1	8.9	3.6
Mutual withdrawal	0.7	0.4	0.7	3.5	1.3	12.2	2.4

Source: Lall and Albaladejo (2004) table 6.

This analysis reveals how competitiveness of different countries, as measured by changes in their world market share, compares with that of PRC. It can be seen that all of the economies covered have a majority of their exports in categories in which PRC has an increasing world market share relative to the economies concerned (ie the categories of direct and partial threat are 50% or more of total exports by value). For all but the Philippines and Thailand the direct threat category (where PRC is gaining market share and the economy concerned is losing it) accounts for at least 20% of exports and in the case of Malaysia nearly 30%. The countries with the technologically most sophisticated export structures are those where proportionately the direct threat category is largest, reflecting in part the very fast growth of PRC's high technology exports from a small base over this period. In all cases the 'reverse threat' category, where the country is gaining relative to PRC is small, at less than 10% and in several instances less than 5%.

This analysis gives the broad perspective on overlapping patterns of trade but it is at a fairly aggregate product level and cannot reveal the detailed nuances of shifting specialization and competitiveness. A more disaggregate approach examines changes in market share at the 4 digit level of trade classification. Weiss and Gao (2003) consider changes in import share in the US and Japanese markets for Chinese and ASEAN exports over 1995-2000. Whilst ASEAN exports grew over this period for several of the important categories there was loss of market share, particularly in the US; the important exception is the case of Electrical machinery where market share continued to grow, but at a slower rate than for PRC (a 'partial threat' in the previous terminology). Their analysis shows that for all ASEAN economies loss of market share has been greatest in the most specialized and therefore the most established lines of activity. This pattern holds across the full spectrum of products from the labour-intensive to high technology end of the range.

Textiles and clothing perhaps provide the most dramatic example of major shift in export market share in favour of PRC in the immediate aftermath of the ending of the quota regime at the beginning of 2005. Within months the growth of Chinese exports of these goods to the US and EU had prompted the re-imposition of restrictions to 'safeguard' domestic producers from market disruption. The main regional casualties from the end of the export quota regime of the Agreement on Textiles and Clothing will be Viet Nam and Cambodia, although how their industries will react to the greatly enhanced competition from PRC is unclear.

#### *Worsening Terms of Trade*

As yet less is known about the competitive terms of trade impact of PRC's rapid growth. The modelling exercises noted above throw little light on this aspect of regional economic relations. However, there is now a widespread view that rapid growth in PRC in the last few years has alongside various supply side factors (and in the case of oil political uncertainty) contributed to push up commodity prices. For example, ADB (2005: 15) points to strong demand from PRC as a factor keeping up world prices for oil, metals

and minerals. Further short-term prices increase for metals (particularly steel) and minerals are projected on the grounds of continued demand from PRC. Neighbouring economies that are net importers of these commodities will lose from this effect, but those who are net exporters will gain. However disentangling the impact of PRC's growth from other factors impacting on the market for these commodities is complex and thus attribution of a share of a price change to PRC alone is difficult. Furthermore whilst this is a negative side to the positive demand effects discussed above that have seen rising exports from the region to PRC it is unlikely that terms of trade effects on their own will be sufficiently large to offset the positive side to the growth of PRC's domestic market.

### *Foreign Direct Investment Diversion*

Loss of market share in the face of a large trading partner growing quickly from a low base is not in itself cause for concern in relation to competitiveness. What will be more significant is if the underlying trends of productivity growth and technical change in the neighbouring economies fall significantly below those in PRC. However for this to be judged a serious concern we need a credible mechanism through which it might occur. In discussions of a 'competition effect' from PRC, either explicitly or implicitly the key role is usually given to FDI inflows. The logic is that FDI provides access to technology, management and marketing skills as well as the potential to link local firms with international suppliers and buyers in global production networks. These links will help to raise productivity in local firms that become foreign owned. In addition, there may be external benefits, for example, in terms of technology spillovers or labour training, that accrue to firms that are not recipients of the initial FDI inflow, either competitors or input suppliers. Following this analysis, if the re-emergence of PRC diverts FDI that would have gone to other countries in the region to PRC this may undermine the competitiveness of these countries.

It is significant that of the modelling exercises for the region surveyed here the one that indicates significant negative effects for ASEAN countries as whole from trade liberalization in PRC (McKibbin and Woo 2003) does so on the assumptions that first there is FDI diversion to PRC and that second this loss of FDI has a significant negative impact on productivity growth in ASEAN.<sup>8</sup> The scale of loss in ASEAN is reduced if these economies can compensate for the loss of technology spillovers from FDI inflows by higher investment in local innovation capacity and human capital development. The argument of the authors is that FDI diversion may occur because prior to PRC's WTO accession its access to world markets was uncertain (its Most Favoured Nation status in the US which was critical to its export success there had to be renewed annually with the approval of the US Congress). WTO membership gave PRC the same rights as other WTO members and the removal of uncertainty regarding access to markets of WTO countries can be seen as equivalent to a reduction in the risk premium required on investment in PRC. In other words, in high risk locations FDI will only be undertaken with a higher than normal expected return on investment. If risk is lowered, so will be the return that investors look for and hence the level of FDI to the now less risky location will increase. A reduction in risk when everything else remains the same can also be

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<sup>8</sup> Ianchovichina and Martin (2003) focus principally in their model on the short-run impact (1995-2007) on PRC of WTO accession. They do include some estimates for other economies and find a negative short-run impact on the rest of ASEAN. This is most significant for Viet Nam and arises due to the impact of the removal of textile and clothing quotas for WTO members in 2005. As a WTO member PRC benefits from this at the expense of the textile and clothing sector in the rest of the region.

interpreted as a rise in the expected value of returns on an investment. This is a familiar argument put forward by those who see trade liberalization whether through WTO or regional free trade arrangements as key to improving the investment climate in an economy. It is supported by various survey evidence that indicates that PRC is frequently cited as the preferred alternative destination should foreign investors decide to move elsewhere. There is some evidence that this is particularly the view of Japanese firms.<sup>9</sup>

Despite the frequency with which such arguments are raised as yet there seems little grounds for real concern, for a number of reasons both conceptual and empirical. It may be that this view overstates the role of FDI in the process of economic growth, since technical change and productivity growth can be improved by domestically funded investment, indigenous innovation and where necessary the import of technology through licensing and other means that do not involve direct investment by foreign firms. It is well known that Japan, The Republic of Korea and Taipei, China developed without a heavy FDI presence. However it is also true that more recently the ASEAN economies have used FDI much more intensively than elsewhere and that in particular cases, such as Singapore, Malaysia and to some extent Thailand, it may have been the key driver of growth.<sup>10</sup> These economies may therefore be most vulnerable to FDI diversion to PRC.

The diversion argument is critically dependent on the view that global (or at least FDI to the region) is fixed, so that its allocation is a zero-sum gain with an increased inflow to one country at the expense of another. The theory behind is dubious. It implies that both global savings are fixed and that FDI cannot increase as a share of global investment. In principle there seems no more reason why global savings should be fixed than why national savings in an individual economy should be fixed, although globally and nationally there will always be a ceiling on the increase in savings given by minimum necessary short-term consumption. If, as the FDI diversion argument implies, the return on FDI in PRC has increased due to a reduction in risk in response to trade reform this may be sufficient either to stimulate additional global savings or alternatively to shift the use of existing savings towards increased FDI at the expense of domestic investment. In either case the fixed FDI scenario is undermined.

From an empirical perspective also there are reasons to doubt the FDI diversion case. This is partly because it is well known that official Chinese statistics exaggerate the amount of genuine FDI coming to the country as a significant proportion (anywhere between 20% and 40% according to different estimates) of recorded FDI is actually recycled domestic funds that leave PRC and re-enter principally through Hong Kong, China, the Virgin Islands and other offshore financial centres, as there are still fiscal and legal advantages to for companies to be established as foreign invested, rather than nationally owned enterprises.<sup>11</sup>

In addition however the diversion case has been questioned by more formal econometric evidence. There is now a well established literature that explains FDI inflows to individual countries in terms of variables relating to market size, labour market

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<sup>9</sup> McKibbin and Woo (2003) cite a survey of Japanese firms in the period immediately prior to PRC's WTO accession as evidence of an intention to shift to PRC.

<sup>10</sup> The UNCTAD index of FDI performance which compares a country's share of global FDI with its share of global GDP provides a simple measure of FDI dependence (see UNCTAD 2002 table 2.1 for example).

<sup>11</sup> Xiao Geng (2004) discusses these issues in detail and presents some approximate estimates of the amount of so-called 'round-tripping' funds.

conditions, the quality of institutions and general economic policy. For example, in general, the expectation is that economies with characteristics like a fast growing domestic market, low labour costs, a well established legal system, low corporate tax rates an open policy on foreign trade, tend to attract higher FDI inflows than economies where these features are absent. These relations can be modelled in a regression framework, whilst adding a term to reflect FDI inflows to PRC to pick up the possible diversion effect. If diversion is actually occurring in an analysis explaining FDI across its neighbors we expect a significant negative coefficient on the variable reflecting FDI to PRC. A recent analysis along these lines by Chantasawat et al (2004) finds that after other effects are controlled for over the period 1985-2002 the level of FDI to PRC is positively rather than negatively associated with FDI inflows elsewhere in the region. Depending upon the specification a 10% rise in FDI to PRC is associated with higher FDI inflows elsewhere of between 1% and 3%. This runs directly contrary to the diversion argument and is explicable if one accepts that a regional process of FDI creation (rather than diversion) is at work so that through production networking by international firms FDI in PRC is linked with FDI elsewhere in the region through the transfer of parts and components between different branches of global networks organized by multinational firms.<sup>12</sup>

## Conclusions

How should we interpret this story? In general it is fair to say that PRC's regional effect both through its trade and FDI impact appears on balance positive rather than negative. The generalization that it is better to have a large, fast growing and open neighbour than not, seems borne out by the evidence we have at hand. Nothing is totally clear-cut however. In a globalized world adaptation and flexibility are essential at the enterprise and economy levels, since more open trade and investment flows will inevitably create losers as well as winners. If resources from contracting sectors can flow readily to sectors where returns and growth prospects are better all will benefit, but where they do not problems will emerge. The short-run difficulties of clothing exporters in Viet Nam and Cambodia that now face the full force of Chinese competition with the ending of the international textile and clothing regime are an obvious and important example.

It is misleading to deny that the PRC effect poses challenges for regional producers both in selling in their own domestic markets and in exporting to third countries. Meeting these challenges requires responsiveness on the part of producers, but governments also have a role to play. Governments in the region that talk of the need for national competitiveness strategies in the face of global challenges (including the effect of PRC) are not repeating obsolete mantras. Such strategies may differ from the industrial policy of earlier decades but if implemented effectively can be important in terms of positioning an economy to take account global and regional trends. Quite what the supportive role of governments should be is a big issue that deserves considerable discussion in its own right.<sup>13</sup> Here we simply conclude with the observation that success in coping with the re-

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<sup>12</sup> It is well known that econometric exercises may not produce robust results as changes in data, time period or model specification may lead to different results. An alternative approach by Xing and Wan (2004) finds support for the diversion case. They model Japanese FDI to four ASEAN countries relative to PRC as a function of the relative real exchange rates of the countries and PRC. Increased competitiveness as measured by a relative depreciation in the real exchange rate for an individual country leads to more Japanese FDI, suggesting a diversionary effect.

<sup>13</sup> Lall and Weiss (2004) discuss issues of international competitiveness in the context of a country case-study for Pakistan.

emergence of PRC requires in large part that producers in the region successfully upgrade their technological base and move up the ladder of comparative advantage from the technologically simple to the technologically more sophisticated products. This will ensure that the positive side of the PRC effect (a large and growing market in the region) is not outweighed by the negative impact of growing competition in similar product lines and for FDI inflows.

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