Discussion

1. Ross Garnaut

Frankel and Wei note the increasing attention being given to the geographic structure of bilateral trade flows in recent times, alongside the more traditional concerns in economics for the volume and value, and commodity composition of international trade for individual economies and the world as a whole. They note the increasing attention being given to *preferential* trade flows. These shifts in professional focus have followed the increase in importance of discriminatory regionalism in Western Europe and North America.

The paper by Frankel and Wei is a substantial contribution to understanding the geographic and, in particular, the regional pattern of international trade flows. Of special interest is the conclusion that the economies participating in Asia-Pacific Economic Cooperation (APEC) have the strongest regional associations among a variety of East Asian and Pacific alternatives, and that these strong associations have developed without major elements of institutionalised discrimination.

The paper analyses regional associations, or regional integration, in real trade within East Asia and the Pacific, and examines whether or not monetary and financial links also exist. The 'gravity model' is used to estimate the contribution of common membership of a regional trade group to the level of trade between two economies. Then comparisons are made of variations in interest and exchange rates in single economies, with variations in economies which are participants in or are excluded from regional groups.

The conclusions are striking, for the way in which separate analyses of real and monetary phenomena, using widely different techniques, reinforce each other. The member economies of APEC are closely associated with each other in their international economic transactions, and rather more so than the East Asian or Western Pacific economies viewed in isolation.

While striking in their clarity, these conclusions should not be surprising. APEC was launched in 1989, and its prospective membership was defined in their current terms, precisely because the 15 member economies traded with each other intensively (Drysdale 1988). The considerable literature that laid the intellectual foundations of APEC had long emphasised the importance of *market integration*, without institutionalised discrimination, in promoting high intensity of trade amongst Asia-Pacific economies (Drysdale and Garnaut 1993). It is an important theme, at least in the economic literature on Asia Pacific Economic Cooperation, that the close links between North America and Western Pacific economies make APEC's wide cooperation more promising than East Asian or Western Pacific

cooperation. However, this theme is being challenged by recent support for narrowly regional and discriminatory approaches to trade policy in the United States (Garnaut 1993).

Early analysis of the basis of trade expansion amongst Asia-Pacific economies made use of both *gravity* and *intensity* approaches to real trade flows, but tended to emphasise the latter (Drysdale and Garnaut 1982). Each has strengths and weaknesses, yet each comes to similar conclusions on the issues addressed by Frankel and Wei.

In terms of the specifics of Frankel's use of the gravity model, it is important to go further with analysis of why the distance variable has such an important role. Frankel and Wei think of distance in terms of transport costs, and so think it 'perhaps surprising' that the effect of distance is at least as great for manufactured goods, where transport costs are proportionately less important, as for primary commodities. It ceases to be surprising when we examine the wider effects of distance, on ease and intensity of communications (including time zone effects); direct investment and other business ties; knowledge of trading opportunities (whether communicated through the public media, informal business ties, interpersonal links or other means); movement of people including through immigration; and cultural and institutional change and, over time, tendencies towards convergence. Empirical studies have suggested that these wider effects of distance are often more powerful than transport costs in influencing trade flows.

The discussion of the power of the GDP per capita variable is of considerable interest. Frankel and Wei conclude that 'intra-industry trade' and 'Linder' effects, which tend to promote trade more between economies with similar per capita incomes, are more powerful than 'Heckscher-Ohlin' effects. This is a reasonable conclusion. But this conclusion does not mean that Heckscher-Ohlin effects (that is, trade motivated by differences in relative factor endowments across countries) are unimportant: the whole experience of Western Pacific trade expansion and economic growth attests to the contrary. Neither does it mean that the welfare gains from trade between countries of similar per capita incomes are greater than from trade between economies with widely different relative resource endowments and per capita incomes. In a dynamic context, too, the East Asian experience underlines the importance of high and rising trade shares of output and expenditure to rapid incomes growth in poor countries, and therefore to substantial convergence over the decades of per capita incomes amongst open economies which share growth-promoting domestic economic policies.

One weakness (among many strengths) of the specification of the distance, and more generally the 'resistance', variables by Frankel and Wei, is the focus on absolute rather than relative values. This follows from the underlying assumption of the gravity model, that bilateral trade flows are independent of each other.

However, in reality, low resistances in a bilateral trading relationship, whether resulting from low transport costs, common membership of a discriminatory *bloc* or other sources, expand bilateral trade partly by replacing domestic production by lower cost production in the trading partner, and partly by diverting trade from other bilateral trading relationships. For this reason, proximity between two economies that are both isolated from the major centres of world production and trade, is likely to be more powerful in promoting trade than similar proximity between two countries that are both close to the centre of gravity of world production. Similarly, 'resistances' to trade between two economies that are both excluded from a major discriminatory *bloc* are *relatively* low, and likely to have a disproportionately powerful effect in promoting bilateral trade. These insights from use of the intensity approach to analysis of bilateral trade flows in a world consisting of many countries could be joined profitably to the insights available from Frankel and Wei's use of the gravity model (Drysdale and Garnaut 1982).

I draw several important policy implications from the paper. One is that intra-regional trade can expand strongly without any element of trade discrimination. A second is that any regional economic cooperation in the Asia-Pacific region should be mindful of the importance of trans-Pacific ties with North America, and careful to avoid disruption to those links. A third is that APEC is a natural grouping, which provides a useful focus for measures to promote regional trade expansion, so long as the means of promotion do not involve trade discrimination.

References

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2. Zenta Nakajima

It is difficult to be anything but wholeheartedly sympathetic towards the paper by Frankel and Wei. They have found some evidence of regionalisation of the world economy into European, American and East Asian groupings. They conclude that, in respect of trade patterns, finance and monetary influences, there

has not occurred as much intensification of intra-regional bias in East Asia as is often supposed.

I would like to note that their findings accord well with my perception. As far as is known to me, no deliberate policy measures have been implemented with an eye to establishing a yen bloc. I fully agree with the paper that 'the US dollar is the dominant currency on this side of the Pacific', as well as on its home side.

What is also appealing is that the paper takes pains to take into account important, but often neglected, factors in determining international economic relationships, such as proximity, linguistic ties, etc. Their attempt at examining impacts of foreign exchange volatility on trade is also a significant contribution in the area that is very important, but often defies empirical testing.

Generally, it is not an easy task to comment on a paper with which you agree. In what follows, firstly, I comment briefly on the applicability of the gravity model to the issue of intra-regional bias in East Asia. Then, I discuss the possibility of a yen bloc from a more policy-oriented viewpoint.

2.1 Impacts of Japan's Direct Foreign Investment in Asia

In attempts to identify intra-regional bias in trade, the authors use the gravity model, thereby holding constant simple economic factors common to any bilateral trade throughout the world, such as proximity, GNP, etc. It is, itself, a legitimate procedure. Nevertheless, caution seems required.

In the late 1980s, Japan's direct investment in Asia (South-East Asia, in particular) increased tremendously. During the same period, direct investment in the United States and Europe also increased significantly. So, Japanese investment in Asia as a proportion of its total direct foreign investment remained more or less unchanged, as Frankel points out in his previous papers.

Investment activities by the Japanese private sector in Asia and the United States were both undertaken under enormous pressure from the sharply appreciating yen, but differed significantly in nature. Evidence suggests that direct investment in the United States consisted largely of purchases of properties (such as land and office buildings) by financial institutions, including banks, insurance companies, etc. In contrast, investment in Asia often represented desperate attempts by manufacturing firms to relocate overseas their domestic production lines.

Naturally, economic consequences varied substantially (for example, in terms of the multiplier effect). Japan's active investment in Asia is deemed to have become one of the major factors that launched the region's economic activity onto an expansionary path seldom experienced previously. In the process, the economic dependence of the region upon the course of events in Japan is likely to have increased significantly. The gravity model appears to treat GNP growth as if it

were given exogenously. However, such growth was, in fact, closely related to an increase in intra-regional dependence. In this sense, to adjust GNP mechanically across-the-board may leave us with an underestimation of intra-regional bias. Of course, the authors' primary concern appears to be to pick up the deliberate policy-induced intensification of intra-regional bias. But then, what interest is there in exploring the existence of a currency bloc, if the intention is to exclude every single element of privately-induced intra-regional bias? I do not think that is the authors' overall intention.

Until formal econometric research is conducted, much of what I have just said remains a hypothesis. In any case, I am not ready to say that Japan is about to challenge United States' dominance in the region.

Nonetheless, it may interest you to know that the share of Japan's direct investment in Thailand rose from 29.5 per cent in 1986 to 37.2 per cent in 1989, whereas the United States' share declined from 30.8 per cent to 20.7 per cent during the same period.

2.2 The Yen as a Nominal Anchor in Asia

Assuming that US dominance in trade, finance, and monetary influence will remain unchanged in Asia in the foreseeable future, would there be a role - a leading role in some sense - for the yen to play in Asia? I would now like to turn to this issue.

The European Monetary System (EMS) is generally viewed as virtually a deutschemark (DM) bloc. It does not, however, imply that the DM is the most dominant currency in every respect among the EMS member currencies. For example, the DM comprises only 23.4 per cent of the total foreign reserves of member countries. It is well below 57.9 per cent, the portion held in US dollars. In the French foreign exchange market, 43.8 per cent of transactions are undertaken in DM, as compared with 71.9 per cent in US dollars.[1]

Nevertheless, the EMS is considered to be a DM bloc. Due to Germany's relatively good performance in maintaining price stability over the medium to long term, the other members have conducted monetary policy in such a way that their currencies might not deviate substantially from the DM. The DM plays the role of a nominal anchor.

It is this kind of role that the Japanese yen may be expected to play in the future. For that to happen, there are three prerequisites. Firstly, intra-regional interdependence in Asia will remain on an upward trend.[2] Secondly, macroeconomic

1. Note that the total currency breakdown adds up to 200 per cent.

2. I employ intra-regional interdependence in the ordinary sense of the word and not necessarily in the sense of the word as defined by the gravity model.

policy in the region will shift its focus from growth to stability. Thirdly, Japan's macroeconomy will, by and large, outperform the US economy over the longer run. If these three conditions are met, who can tell for sure that Asia will not form a yen bloc analogous to the EMS?

The Bank of Japan's policy on this issue has always been to maintain a neutral stance. We have no intention to encourage or discourage other Asian countries to peg their currencies to the yen or to the yen-dominated basket. It is strictly their choice.

References

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3. General Discussion

The discussion of the paper by Frankel covered a variety of issues concerning the determinants of world trade.

The question of what exactly defines a currency bloc was raised - in particular, how should a 'yen bloc' be defined? Four possible definitions were advanced:

- an area in which the yen is the predominant unit of account for private transactions;
- an area in which the Bank of Japan plays a similar role to that played by the Bundesbank in Europe;
- an area that sees its longer-term political and economic interests being aligned with that of Japan; and
- a grouping of countries drawn together in trade by economic links, and where Japan is at the centre of the group.

The first definition was thought to be largely irrelevant for trade. The second was important to the extent that common currency areas and low exchange rate volatility are conducive to trade. The third definition was the most commonly thought of definition of a 'bloc' most likely to generate strong trading links. The gravity model used by Frankel fits within the fourth definition. While it was thought important to study this model, the insights afforded by considering other definitions of a bloc should not be lost sight of when examining influences on the world trading environment.

There was considerable discussion of the role of factors in the third definition. In particular, political antipathy/sympathy between countries was seen as a key

determinant of trade. The United States trades very little with Cuba, yet the two countries are very close geographically. This lack of trade reflects political tensions between the two countries. Another example discussed was the old Soviet-Eastern European group - the countries in this group traded disproportionately with one another because of their common political alliance. The collapse of Communism in Europe has brought about a fundamental re-orientation of trade between these countries. Some discussants argued that this re-orientation of trade is among the most important factors governing current developments in international trading arrangements. However, the point was also made that the causation did not necessarily run from solid political relationships to trade. In some important cases, international trade was said to help build stronger political ties.

The question of what mix of countries is best suited to the formation of a bloc was also considered. Some discussants thought that the development of a bloc would be easier if one of the countries in it was a large net saver.

The importance of Frankel's distance variable in explaining gross trade flows also received some attention. In particular, the question of why distance has not become less important through time was discussed. It was argued that the distance variable not only captures transportation costs, which have declined significantly, but that it also captures psychic costs imposed by distance. The increased focus in world trade on differentiated manufactured goods was making closeness to markets a more important variable than was the case in earlier decades. In this case, even though there have been massive improvements in communications and transport technologies, an ability to understand and quickly service markets has increased the need to be close to where the product is sold.

The trend towards increasing trade in services was also thought likely to lead to distance considerations becoming even more important in international trade in coming years. However, there has been relatively little research on trade in services (and assets) because of the lack of comprehensive data sources. It was suggested that for trade in services (especially financial services) distance in terms of time zones might be more important than distance in terms of kilometres.

A number of participants attempted to interpret the language variable in Frankel's trade equations. The importance of the language variable might reflect the fact that countries that share a common language often share common legal and banking systems. Nations that share a common system of commercial law might trade with one another more than countries with different systems.

The link between exchange rate volatility and international trade was also discussed. While the approach of using cross-section data to analyse this issue was generally supported, an important potential problem was raised. That is, if exchange rate volatility is higher in one period than in another for *all* countries,

then the cross-section methodology is unlikely to pick up any effect. It is only if volatility differs across trading pairs that any effect can possibly be found. There was also some discussion of the appropriateness of the time periods chosen to observe the cross-sections of data. It was suggested that 1975 and 1980 were heavily influenced by developments in the world oil market.

Foreign direct investment also complicates the interpretation of exchange rate volatility and trade. Japan has invested heavily in Asian economies which have more stable exchange rates *vis-à-vis* the US dollar than does the yen. Japan is able to export to the United States from these countries.