The Spoke Trap: hub and spoke bilateralism in East Asia

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1. Introduction

The first draft of this paper (written in 2003) opened with: ‘East Asia finds itself on the eve of rampant regionalism.’ In early 2007, we can say that regionalism is plainly rampant. ASEAN, which has signed agreements with China and Korea, is negotiating with Japan. Japan has signed bilateral agreements with some of the big ASEANs (Malaysia, Singapore, Indonesia, Thailand, the Philippines and Vietnam) and is likely to conclude a deal with ASEAN as a group this year. ASEAN is also exploring the possibilities with Australia, New Zealand, India and a raft of other Asian nations, and Japan, Korea and China are following suit. The Asian Development Bank counts 192 FTAs in the Asian Pacific region as of January 2007. That is about half the FTAs in the world – quite remarkable for a region that had almost no functioning FTAs just 10 years ago.

The resulting liberalisation is likely to be good for the region, but there is a danger. The political economy force that drives the domino effect tends to produce hub-and-spoke bilateralism. This would be problematic at two levels.

■ Economically, hub-and-spoke-ism produces an inferior outcome for the region as a whole. In particular, it may produce a profusion of Free Trade Agreements that could make the whole region less attractive to foreign direct investment – an effect that might be called, in the Asian context, the ‘noodle bowl problem’.

■ Politically, hub-and-spoke-ism could prove divisive. It tends to marginalise the spoke economies both economically and politically while at the same time granting leverage to the hub economy. Since there are two natural hubs in East Asia – Japan and China – there is a strong possibility that uncoordinated political economy forces could produce a two-hub system. This would be a worrying outcome in that it might foster regional divisiveness rather than regional cooperation. This sort of alignment between trade blocs and political/military camps clearly heightened political tensions in intra-war Europe.

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1 This paper was written while I was visiting the Korea Institute for International Economic Policy (KIEP), where I first presented it at a December 8, 2003 seminar. I wish to thank KIEP President Choong Yong Ahn and the Director of the Center for Northeast Asian Economic Cooperation, Hyungdo Ahn for providing excellent support during my visit. Inkyo Cheong provided many insightful comments and suggestions that I have incorporated into this paper; these made it a better and less naïve paper than it would otherwise have been.
**East Asia’s usual regionalism**

While the domino effect is clearly at work (once two nations sign an FTA, third nations want to sign FTAs to avoid the emergence of discrimination against their exporters), regionalism in East Asia is quite unlike that of other regions in the world. For starters, most of the trade in the region is trade in parts and components, with many of the final goods exported to the EU or US. Moreover, the trade flows closely follow the extensive network of foreign direct investment in the region. Asia, in short, is like one big factory with the intra-regional trade flows acting like conveyor belts moving partly processed goods to the next production bay. This system, which started to unfold in the mid-1980s, has been called market-driven regionalism (see Urata 2004 for details and history of this phenomenon). Market-driven regionalism is unusual in two distinct ways. It was not driven by governments but rather by private companies establishing production sites in the various countries and pushing for unilateral liberalisation of tariffs. Second, it involved little preferential tariff access – at least until a few years ago – since the nations unilaterally set their applied MFN tariffs to zero, or close to zero on the ‘Factory Asia’ goods. Indeed, almost no traders take advantage of the oldest arrangement – the ASEAN FTAs (AFTA); less than 15% of intra-ASEAN trade benefited from AFTAs preferences in 2002 (JETRO 2003). By comparison, utilisation rates below 50% are considered very low for European FTAs (Augier and Tong, 2005).

**Organisation of this paper**

This paper begins with a summary of the negative effects of hub-and-spoke bilateralism, followed by a discussion of the political economy forces that tend to create hub-and-spoke arrangements. This theory is used in the next section, section 4, to motivate an empirical measure of ‘hub-ness’. My findings suggest that only Japan and China are likely to be hubs as individual nations, but that a Japan Korea FTA would create a clearly dominant hub in the region. With this analysis in hand, the next section considers the implications for the likely course of East Asian regionalism. I argue that unless explicit measures are taken a ‘bicycle system’ is likely to emerge, that is to say, a two-hub system with Japan and China as the hubs.

The paper then turns to possible solutions to the spoke trap. Section 6 reviews various anti-spoke strategies from around the world, and the subsequent section, section 7, puts forth two proposals for East Asia. The final section presents concluding remarks.

**2. Why hub and spoke bilateralism is bad economically**

As is well known, a country that lowers tariffs on imports from only some of its trade partners provides an artificial incentive for domestic residents to switch their purchases away from the non-favoured trade partner. This may be harmful to the country since it may involve diverting trade from low-cost to high-cost producers (trade diversion). A hub and spoke trade arrangement, by favouring imports from the hub, may lead to this sort of trade diversion. By contrast, a regional free trade area, which multilateralised the hub-and-spoke FTAs, reduces this possibility since it reduces the fraction of trade that can be diverted.
Baldwin and Venables (1995) classify the economic effects of trade agreements into allocation effects (i.e. the impact on the allocation of resources within an economy), location effects (i.e. the impact on the spatial allocation of economic activity within and between nations), and accumulation effects (i.e. the impact on the main determinants of growth – the rate of accumulation of human, physical and knowledge capital). We turn first to the allocation effects.

2.1. Allocation effects

Noodle bowl effect

As I wrote in 1994, ‘A web of trade deals can create a nightmarish tangle of administrative procedures that raise costs for enterprises and for governments. Most costly of all, are those dealing with rules of origin.’2 This clearly is a danger for future East Asian regionalism. (This point has come to be known by Jagdish Bhagwati’s catchy phrase the ‘spaghetti bowl effect’.)3 On rules of origin, see Krishna and Krueger (1996) for detailed analysis and Krishna (2003) for survey.

Restricted pro-competitive effect

An additional allocation effect of a hub and spoke agreement is the way in which it restricts competition from spoke-based firms in each other’s markets. For the most part, competition from hub-based firms would provide all the competition that is needed, but in certain industries and certain countries, spoke-based firms will be more competitive. See Baldwin and Wyplosz (2003 Chapter 6) for an accessible presentation of the pro-competitive effect and its implications.

2.2. Accumulation and location effects

The next effect, which Krugman (1993) calls the ‘hub effect’, concerns the impact on investment in spoke economies. That is, just as an all-roads-lead-to-Paris transportation system favours industrial location in Paris, a hub-and-spoke arrangement favours industry in the hub nation at the expense of industry in the spoke nations. Baldwin, Forslid, Martin, Ottaviano and Robert-Nicoud (2003) provide a formal analysis of this in the context of the new economic geography, but here the argument is presented as simply as possible.

The marginalising tendencies of hub and spoke FTAs can be illustrated with a numerical example that intentionally puts to the side several important issues. Imagine there are three locations being considered as the site for a new manufacturing facility, Japan and two other Asian sites, one in Korea and one in Malaysia. For simplicity, assume the division of sales among markets is fixed irrespectively of costs, with 75% sold in Japan and 12.5% sold in Korea and Malaysia. (This simplification lets us divorce cost

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2 See the chapter entitled “Hub and spoke bilateralism” in Baldwin (1994). The final manuscript can be freely downloaded from http://heiwww.unige.ch/~baldwin/.

3 It is difficult to track down the exact citation for this, since even Bhagwati does not provide a references when he uses the term. The first reference I could find was a column by New York journalist Peter Passel, where he quotes Bhagwati as saying: ‘spaghetti bowl of tangled, inconsistent trade standards that just can’t be good for efficiency.’ February 4, 1997.
considerations from demand considerations.) Imagine the unit production costs would be 10 if the plant is located in Japan, 8 if the plant is located in Korea or Malaysia and 15 if three separate plants must be built. Economies of scale explain the high cost of separating production; wages explain why the Japanese location means higher production costs.

To start the analysis, suppose initially there are no FTAs, and unit trade costs amount to 6 for all three trade flows (i.e. it costs 6 to ship a unit between any two nations). Internal trade costs are assumed to be zero. The simplified problem facing the potential manufacturer is to choose the location with the lowest costs. Without FTAs, the cost minimising location for the plant is Japan. The average cost in Korea or Malaysia is 13.25 – 8 for production plus an average trade cost of (3/4)*6 plus (1/8)*0 plus (1/8)*6. This surpasses the costs of producing in Japan (this equals 11.5) since the high unit production cost in Japan is more than offset by the better market access (i.e. lower average trade cost).

Envision the impact of hub-and-spoke bilateralism on this outcome. Presume Japan-Korea and Japan-Malaysia FTAs take effect, cutting the unit cost for bilateral trade to 3. Korea-Malaysia trade costs remain at 6. Arithmetic shows that the average unit cost of locating the plant in the Japan is still lower (10.75) than locating in Korea or Malaysia (11). Although the FTAs lower trade costs bilaterally, trade costs within Japan are lower yet, so there is still some market size effect favouring the Japanese location. In short, location in the hub, Japan in this case, confers preferential access to all three markets, not just two.

The morale of this simple arithmetic example is that a hub and spoke system of trade arrangement tends to favour location of industrial firms in the hub.

Lastly, consider the impact of turning the hub-and-spoke FTAs into a free trade zone by implementation of a Korea-Malaysia FTA. Here we see that the total unit costs of locating in Korea or Malaysia are now lower (10.625) than locating in Japan (10.75). Although location in the EU implies zero trade costs for 75% of the manufacturer's sales, the lower East European production cost finally become the dominant issue.
Of course, this simple illustration is not general, and we do not mean to say the filling in the gaps between ‘spokes’ will lead to a tidal wave of foreign investment in Korea and Malaysia. Nevertheless, the basic message is clear. Hub and spoke FTAs tend to marginalise the ‘spoke’ economies, since factories in the ‘spokes’ have artificially lower market access than factories in the hub. Consequently, hub and spoke FTAs render an artificial deterrent to investment in the outer economies. Filling in the gaps with spoke-spoke FTAs removes this policy-induced investment deterrent. Another way of saying this is that signing bilateral trade deals with the hub, without signing deals with the spokes, is self-inflicted peripherality. By making small economies smaller than they need be, hub-and-spoke bilateralism can be thought of as self-induced peripherality for spoke nations.

2.2.1. Hysteresis in Location

A key lesson of the ‘new’ economic geography (Fujita, Krugman and Venables 1999) is that the location of economic activity is marked by multiple equilibria. That is to say, there is not a unique constellation of economic concentrations towards which Asia is inevitably heading. There is true uncertainty about what the economic geography of Asia will look like in 50 years. Moreover, once a particular location gets a head start, it may be extremely difficult for other regions to catch up. The import of all this is that the temporary investment deterring effects of the current hub and spoke system may have consequences that last far beyond the termination of that system. In other words, bad policies – even when they are only temporary – may have very long-lived harmful consequences.

The importance of all this should be clear. Since hub-and-spoke bilateralism favours location in the ‘hub’, five or ten years of hub-and-spoke bilateralism will give Japanese
locations a head-start on other Asian locations. Thus, more new industry may end up in Japan than would be the case with a free trade area (i.e. FTAs among spokes as well). Given the logic of economic geography, circular causality will continue to favour regions that get a head start. The effect of a bad policy may be felt long after the policy is reversed. See Feund (1998) for a formal analysis of industrial hysteresis.

3. Why hub & spoke bilateralism? Some theory

The world is full of hub and spoke trade arrangements and such an arrangement may well emerge in Asia. Before considering solutions to hub-and-spoke-ism, we discuss the political economy forces that so systematically yield hub-and-spoke bilateralism. One reward for this theorising is an empirical methodology for measuring the ‘hub-ness’ of nations.

3.1. The mercantilist view of trade negotiations

From a political perspective, exports are good and imports are bad. A more subtle expression of this idea is that trade is good because trade creates jobs. No matter how it is expressed, this idea is nonsense from the medium- or long-run economic perspective. Be that as it may, the important fact is that this mistaken reasoning points governments in the right direction. It leads them to conduct trade negotiations based on an exchange of market access. Specifically, since exports are good and imports bad, if country A wants better access to country B’s markets, then country A is expected to ‘pay’ for this market access by opening its own market to B’s exports.

Law of the jungle, MFN rules and FTAs

Usually, the market opening that results from this mistaken reasoning is good for all nations involved. A drawback of this mechanism, however, is that it may create a sort of law of the jungle. That is, with market access as the currency of exchange, big countries are rich and small countries are poor. The rules of the GATT correct this imbalance with the principle of Most Favoured Nations (MFN) treatment. However, when it comes to negotiating regional trade arrangements, MFN does not apply, so the law of the jungle may prevail.

3.1.1. Political economy of hub and spoke bilateralism

Political economy forces created by an application of this law of the jungle support hub-and-spoke bilateralism. Take a country like the Czech Republic. On the pro-liberalisation side, Czech exporters have a large interest in the EU market, but only a minor interest in the market of, say, Estonia. On the anti-liberalisation side, Czech import-competing industries dislike imports whether they come for the EU, Estonia or elsewhere. Now consider the line-up of political forces inside the Czech Republic. Czech exporters are willing to fight quite hard for market opening with the big EU market. They are willing to

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4 This section is taken almost verbatim from Baldwin (1994), which studied the then emerging hub-and-spoke-ism in Europe. The main change has been to substitute ‘EACs’ (East Asian Countries) for ‘CEECs’ (Central and East European Countries).
fight much less hard for market opening with Estonia. In other words, there are strong political forces backing market opening with the ‘hub’ but very little support for market opening with other ‘spokes’. Since Czech protectionists simply want to reduce import competition from any source, the protectionists are likely to win when it comes to blocking spoke-spoke liberalisation, though they lose when it comes to hub-spoke liberalisation.

An interesting add-on effect may occur if foreign investment from the hub is important in the spoke economies. To attract foreign investors, the spoke governments may promise protection from imports. Moreover, given a credible trade agreement with the hub, it is much easier for the spoke government to promise long-term protection against imports from other spoke economies. If this sort of pandering-for-investment protectionism becomes quite common, the spoke economies may end up ‘Balkanised’. That is, foreign multinationals may be enticed into locating inefficiently small production facilities in each spoke economy. Having done this, the multinationals may become a new anti-liberalisation force. Companies from the hub that have invested in inefficiently small facilities in several spoke economies may resist efforts to liberalise spoke-spoke trade. This may make the hub governments more reluctant to take any initiative in redressing hub-and-spoke bilateralism.

Why FTAs between Developing Nations Usually Fail

If some idiosyncratic event stirs a great wave of enthusiasm for brotherhood among the spoke economies, politicians in these countries may sign agreements promising to open spoke-spoke trade. Yet once the headlines fade and the enthusiasm wanes, the drab politics of protectionism usually reasserts itself. Promises are broken or never fulfilled and the expected liberalisation never appears. Moreover, since protectionist forces reappear in both spoke economies, the broken promises are generally accepted without protest. Note how different the situation is for spoke-hub trade arrangements. Exporters in both the hub and the spoke (but especially those in the spoke economies) care a good deal about access to each other’s market. Accordingly, exporters would raise their voices if promises were not kept. That is to say, the same sort of backsliding that is common in spoke-spoke agreements will not be tolerated in hub-spoke trade deals.

The ‘Passing Parade’ Pandering Problem

Some competition among EACs’ (East Asian Countries) governments for foreign direct investment is probably a healthy thing for all parties. Inward investment is promoted by policies such as guaranteed profit remittances, property rights assurances (especially for intellectual property rights) and an absence of trade related investment measures such as export requirements and local content rules. Although this is well understood, governments throughout the world often do not adopt such policies for domestic political reasons. Competition among EACs for foreign direct investment (FDI) is an effective way of ensuring that they stick to FDI policies that are in their best interest anyway.

However, too much competition among EAC policy makers could lead to an inferior, non-cooperative outcome. The basic problem can be exemplified with the so-called ‘passing parade’ parable. Imagine a crowd gathers to watch a parade. As the parade passes, people in the front stand on their toes to see better, thus forcing all those behind...
them also to stand on their toes. In the end, most see no better than before, but all have to stand on their toes.

In the EACs, potential investors, foreign and domestic alike, have an incentive to ask for import protection as a condition for making their investments. However if all EACs succumb to this pandering and erect trade barriers to attract investment or retain jobs, they could all end up ‘standing on their toes’ without results. This destructive competition could backfire. Each country's uncoordinated pandering to foreign investors could lead to trade barriers that lower the overall attractiveness of the region, thus resulting in less investment in each country. Of course, given the political power of EU exporters, it will be much more difficult for the EAC governments to promise protection against imports from the EU. But a hub and spoke system allows a free hand to put up barriers against imports from other EACs.

3.2. Domino effect applied to hub and spoke bilateralism

The domino theory asserts that the signing of one preferential trade arrangement triggers a chain reaction in that it tends to induce other such arrangements, with the force of this effect feeding on itself. The theory was originally conceived to account for NAFTA and the pro-EU-enlargement pressures that emerged in the 1990s.

Here we extend the domino theory to the specific case of hub-and-spoke bilateralism. Since the reasoning is fairly involved, it is best to organise the reasoning with the help of a simple analytic framework. In this case, import-supply and import-demand diagrams will be sufficient.

The above political economy reasoning suggests that exports to the hub are the key to the domino effect in this case, even though the full problem is radically more complex. To illustrate the basic logic as simply as possible, we make the extreme assumption that exports to the hub are the only thing that matter.

To be concrete, suppose we have three nations that are potentially spokes, spokes 1, 2 and 3, and one potential hub. This situation is depicted in Figure 1. The right panel shows the hub’s market, with MD reflecting its import demand curve. We assume that all of the spokes are symmetric to each other, so we can illustrate all effects with a single XS curve.

Presuming the hub initially imposes an MFN tariff of $T$ on all three of its partners, the signing of the first hub-spoke FTA shifts the import supply curve down from $MS_{MFN}$ to $MS_{1\text{-spoke}}$. As usual, this raises the price facing exporters based in the spoke nation that negotiated the FTA, with the size of the rise being from $P'-T$ to $P^1$. Thus on the export side, the first FTA signer gains areas 3, 4 and 5 (before its border price as $P'-T$). The excluded spokes lose an area equal to area 2, because the FTA drives down the domestic price in the hub to $P^1$ and this drags down the excluded nations’ border prices to $P^1-T$.

When the second hub-spoke FTA is signed, three things happen to spoke exports.

- The second FTA signer sees its exports rise as the price it faces rises to $P^2$. This implies a gain to the second signer of areas 2, 3 and 4.
The first FTA signer sees its export volume to the hub fall as the price it faces in the hub market falls to $P_2$.

The remaining spoke sees its exports fall as the price it faces for exports to the hub falls to $P_2-T$.

**Figure 1: Domino effect in hub and spoke bilateralism**

When the third and final hub-spoke FTA is signed, two things happen.

- The first and second FTA signer see their exports fall as the price they face falls to the free trade price, $P_{FT}$ (at this point, the hub has eliminated all import duties). This implies an additional loss of area 4 for both.
- The third FTA signer sees its export volume to the hub expand significantly, as all the discrimination is removed. And the price it earns on exports to the hub rises from $P_2-T$ to $P_{FT}$. The gain to the third hub from this is the sum of areas 1, 2 and 3.

### 3.2.1. Race to be first

To summarise, when we focus only on spoke exports, the first FTA signer earns areas 3, 4 and 5. The second earns 2, 3 and 4. The third earns 1, 2 and 3. Because area 5 is bigger than area 2, and area 4 is bigger than area 1, we can say that the gain is greatest for the first, next biggest for the second and smallest for the last. This ordering has important implications.

Let us suppose that for some reason or the other the hub cannot, or at least might not be able to, negotiate all three FTAs simultaneously. To keep things simple, let us make the artificial but useful assumption that the hub can do one FTA per year. It is obvious from the discussion above that any spoke that believes it will eventually sign an FTA with the hub would like to be the first one to do so. Or, to put it more colloquially, there will be a
scramble for the head of the queue once the spokes know that the hub is open to FTAs. Moreover, the same scramble would occur even if the hub could negotiate many FTAs at once but there were a possibility that some of these might be put off, or that at some point the hub would stop signing FTAs.

This is what happened when the US and Mexico announced their FTA in 1990. Within months, Chile, Brazil, Argentina, Uruguay and Paraguay all formally or informally approached the US with requests for FTAs. The Bush administration, fearing five separate battles with protectionists in Congress, discouraged these efforts and offered the Enterprise for the Americas Initiative (EAI) instead; this was launched in June 1990. According to CEA (1991 p.255), the EAI created a process leading to free trade agreements, the first step of which required nations to sign so-called Framework Agreements. These committed countries to reducing their investment restrictions, inter alia, in exchange for promises of closer US ties in the future. Although the Framework Agreements might be viewed as unilateral ‘concessions’ by mercantilists, 26 Latin American countries signed them in 1991.

The model discussed above leaves out two very important elements. First, it ignores the impact of FTAs on the spoke’s economies. A full analysis would account for the political economy forces opposing an FTA with the hub. While these are surely important to the whole picture, post-war history shows that very few spoke economies can resist the appeal of an FTA with the hub once the hub starts signing such agreements. The second aspect has greater relevance to recent regionalism, namely the attitude of the hub to further FTAs. In Europe, where the EU is clearly the hub, this is not an issue since the EU has committed itself to what might be called open FTA-ism. The EU will sign an FTA with almost any nation that is democratic and is willing to accept the EU’s insistence that agricultural trade be excluded. In the Americas, where the US is the dominant hub, things are quite different. The US has been extremely reluctant to accede to the many FTA offers it has received. Plainly, it would be nice to have a convincing analysis of why the EU and US approaches are so different, but I suspect that the real answer is non-economic.

4. An empirical measure of hub-ness

One unique feature of Asian regionalism is the extreme frequency with which the hub and spoke concept arises. Authors from virtually every nation in the region express a hope that their nation will become a hub for Asian regionalism. The harsh reality, however, is that very few Asian nations could attract the sort of mercantile interest necessary to attract a system of spokes. But how would one measure this attractiveness as a hub?

The above reasoning suggests that what really matters is the increase in exports that a nation would experience if it signed a bilateral FTA with the country in question. After all, a direct political benefit of an FTA is the extra exports it generates. While many other things will matter in every specific case, we can say that an FTA is quite unlikely to be

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5 At the time, I was working for the Bush administration’s Council of Economic Advisors following trade policy matters.
politically viable unless it does generate sufficient mercantile interest. The basic idea is that we can measure a nation’s hub-ness by looking at how interested other nations in the region would be in gaining preferential access. A hub will be the nation for whom preferential access is highly valued by most, or all nations in the region.

Working out how an FTA changes a nation’s exports is, in general, a complex matter. To make progress, it is useful to make some bold assumptions.

First, we assume that the exporters’ interest will be proportional to the extra exports that such a bilateral opening would get them. Given this, the question is, ‘How much would the nation’s exports rise if it got preferential access to another nation’s market?’

To facilitate the reasoning, take an example. How much would Thailand’s exports rise if it got better, preferential access to China’s market? There are two parts to this. How much would a given opening raise bilateral exports? And how important are the affected bilateral exports with respect to overall exports? We start with the second question.

4.1.1. Motivating our Hub-ness Measure

Here a simple calculation is useful. If Thailand’s exports to China rose by 1%, how much would Thailand’s overall exports rise? Defining Thailand’s total exports as PT (a mnemonic for price times trade volume) and its exports to China as $P_T C$, Thailand’s total exports can be written as $P_T C + \sum_i P_T i$, where $P_T i$ represent Thai exports to all other nations. Simple log-differentiation shows that the percent increase in PT that comes from a one-percent increase in $P_T C$ is just China’s initial share in Thai exports, $P_T C / P_T$.

Next, how much would preferential access raise Thai exports? To be concrete, we define ‘preferential access’ as a Chinese policy change that results in a 1% reduction in the price of Thai goods in the Chinese market relative to the price of other imports into China. The size of the resulting increase in Thai exports to China depends upon many things, but one important determinant is the share of Thai exports in China’s total imports. After all, if Thailand accounts for, say, 90% of all imported goods in China, the ‘preferential access’ would not help that much. Thai firms would be gaining competitiveness only relative to the remaining 10% of imports. By contrast, if Thai goods accounted for only, say, 1% of the Chinese imports, then the preference to Thai firms would have a lot of effect.

Putting these together, we can very roughly estimate the increase in Thai exports to China that results from a marginal, preferential improvement in market access as:

$$H_{Md} = s^X_{od}(1-s^M_{od})$$

Where $H_{Md}$ measures the ‘hub-ness’ of nation $d$ ($d$ stands for destination). The formula posits that this increases with the importance of $d$’s market to nation $o$ exports ($o$ stands for origin), and on the importance of $o$’s sales in $d$’s imports. In our example, $s^X_{od}$ is the share Thai exports that go to China, and $s^M_{od}$ is the share Chinese imports that come from Thailand.

For a more formal derivation of $H_{Md}$, see Box 1.

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6 For example, if China accounted for half Thailand’s exports, total Thai exports would rise by ½ percent if its exports to China rose by 1%.
Box 1: Deriving the ‘hub-ness’ measure

The gravity model is by far the most empirically successful trade model. While it can be justified in many ways, the most natural is to view it as an application of the Helpman-Krugman trade model (Helpman and Krugman 1985). That model is based on Dixit-Stiglitz monopolistic competition, which entails CES demand functions and mill pricing. In particular, the exports of a typical variety made in the ‘origin’ nation is:

\[
\Delta = \Delta \equiv \left( \int p_{id}^{-\sigma} \, di \right)
\]

where \( p_{id} \) is the price of a typical origin-nation variety in the destination nation, \( E \) is expenditure in the ‘destination’ nations and and \( \mu \) is the fraction of \( E_d \) that gets spent on all varieties in this sector. The integral is over all varieties sold in the destination nation (the subscript ‘d’ indicates a destination-nation variable).

If there are \( n_o \) varieties produced in the origin nation, the total value of exports from origin to destination, what we call \( PT \), is:

\[
PT \equiv n_o p_{id} c_{id} = \frac{p_{id}^{1-\sigma}}{\Delta} n_o E; \quad \Delta = \left( \int p_{id}^{-\sigma} \, di \right)
\]

Another handy aspect of Dixit-Stiglitz monopolistic competition is that each industrial firm is atomistic and thus rationally ignores the impact of its price on the denominator of the demand function. As a consequence, the typical firm acts as if it is a monopolist facing a demand curve with a constant elasticity equal to \( \sigma \). Given the standard formula for marginal revenue, this implies that the profit-maximising consumer price is a constant mark-up of marginal cost. More specifically, the first-order conditions for a typical industrial firm’s sales to its local market and its export market are:

\[
p = \frac{mc}{1 - 1/\sigma}, \quad p^* = \frac{p}{\sigma}
\]

where \( p \) and \( p^* \) are the local and export prices of an origin-nation based industrial firm, \( \tau \geq 1 \) reflects all bilateral trade costs (natural and man-made), and \( mc \) is the marginal cost of production in the origin nation (assumed to be flat in the Dixit-Stiglitz model). The second expression shows an important implication. Firms find it optimal to engage in so-called mill pricing. That is to say, a firm charges the same producer price for sales to both markets. To see that this is true, note that the producer and consumer prices are identical for local market sales (there is no trade cost), but for export sales the consumer price is \( p^* \), while the producer price is \( p^*/\tau \). This, together with inspection of (3), reveals that \( p = p^* \tau \), and this confirms the assertion that mill pricing is optimal.

Using (3), we have:

\[
PT_{od} = \phi_{od} \frac{p_{id}^{1-\sigma}}{\Delta} n_o E; \quad \Delta = \left( \int \phi_{id} p_{id}^{-\sigma} \, di \right); \quad \phi_{id} = \tau_{id}^{1-\sigma}
\]

where \( \phi_{od} \) measures the free-ness of trade between nation o and nation d; in practice this will depend upon natural barriers, such as distance, and man-made barriers such as tariffs and non-tariff barriers. Using this simple model we can easily calculate the export impact of a marginal opening of bilateral exports, i.e. a marginal increase in bilateral openness \( \phi_{od} \). Taking logs and differentiating, we have that:

\[
\frac{dP_{T_{od}}}{d\phi_{od}} = 1 - \frac{n_o \phi_{od} P_o^{1-\sigma}}{\Delta} = 1 - \frac{s_{od}^M}{\Delta}
\]

where \( s_{od}^M \) is the share of nation-o’s sales in nation-d’s market. To see how important a change in \( PT_{od} \) is to nation-o’s total exports, we simply log-differentiate the sum of o’s exports to all destinations:

\[
\frac{dPT_{od}}{\phi_{od}} = 1 - \frac{n_o \phi_{od} P_o^{1-\sigma}}{\Delta} = PT_{od}/\mu E, \text{ i.e. it is the value of o’s sales as a share of d’s total spending on this sector.}
\]
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\[
\frac{d\sum_PT_{od}}{dPT_{od}} / \frac{\sum_PT_{od}}{PT_{od}} = s_{od}^X
\]

where \(s_{od}^X\) is the importance of d’s market to o’s exports, namely it is PT_{od} as a share of o’s total exports.

Putting these together, we can see that the percent change in nation-o’s total exports due to a 1 percent increase in bilateral openness with nation d is given by:

\[
HM \equiv \frac{d\sum_PT_{od}}{d\phi_{od}} / \frac{\sum_PT_{od}}{\phi_{od}} = s_{od}^X (1 - s_{od}^M)
\]

where HM stands for ’hub-ness measure’.

In our empirical implementation, we ignore domestic sales of the destination nation’s firms; in essence this assumes that origin-nation varieties are only competing with other imported varieties in d’s market.

Accounting for domestic varieties

The HM measure rests on the simplifying assumption that imported goods compete only with other imported goods, ignoring domestic varieties. If one is willing to assume that all domestic GDP is in symmetric competition with all imported varieties, it is simple to account for this. In particular, the only thing that changes is the expression in (5), it becomes \(1 - (s_{od}^M)(s_Y^M)\), where \(s_Y^M\) is the destination nation’s import to GDP ratio.

With this theory in hand, we turn to the numbers.

4.2. Application to Western Hemisphere

In both the new world and the old world, hub and spoke arrangements arose rather naturally. Unless Asian nations make a conscious effort to avoid this, the same is likely to occur in Asian. But who will be the hub? This is where our measure of ‘hub-ness’ comes in. By helping us to identify likely candidates for hub status, it will help us think ahead about the course of Asian regionalism.

This, of course, presumes that our measure has some relevance to the real world. Our first task is therefore to ‘test’ our hub-ness measure on existing data. In particular, we ‘test’ the validity of the measure by looking at what it says about an existing hub and spoke arrangement. While one may argue about who the hub will be in Asia, there is absolutely no question that the US is the hub in the Western Hemisphere. As we shall see, this manifest truth is in line with what our hub-ness measure suggests. As such, it provides some very weak support for the relevance of our measure.

4.3. Does the HM show the US to be a hub?

Our proposed measure of hub-ness is simple to calculate since it requires nothing more than bilateral trade data. The results, which consider the hub-ness of the US, Canada and Mexico, are shown in Figure 2.

The main fact that jumps out from the figure is the overwhelming importance of the US market to all the listed Western Hemisphere nations. This is not in any way news; an observer with even a passing knowledge of world trade flows would expect this. The importance of this result is that it provides some weak support for the relevance of our HM index.
4.3.1. **Does the HM show Brazil to be a hub for Southern Cone nations**

The US dominance is obvious, but given this dominance, one might argue that virtually any measure would show that the US, and not Canada or Mexico, were the hub. A slightly less obvious test comes by looking at the so-called Southern Cone of South America.

Trade in the Southern Cone is dominated by a regional arrangement called Mercosur – an agreement that started with a bilateral between Argentina and Brazil (Agreement on Argentina-Brazilian Integration, July 29, 1986). This bilateral gradually gathered depth as more sectors were added and bilateral tariffs were cut and this triggered a domino effect. In August 1990, Paraguay and Uruguay asked to join, and on March 26, 1991, the Treaty of Asuncion created Mercosur (Portuguese abbreviation for Southern Common Market). The domino effect continued and in the mid 1990s, Chile and Bolivia asked for FTAs with Mercosur (which was by this time a customs union, at least in theory).

Brazil is widely viewed as the hub in this arrangement, although Brazil itself has made sure that the widening integration did not take a hub-and-spoke form. What does our HM say about Brazil’s hub status?

As Figure 3 shows, Brazil is, even by itself, a hub to many South American nations, but not for Central American nations. When one takes Brazil and Venezuela together, the HM shows the pair’s massive dominance of their neighbours, Bolivia, Uruguay, Paraguay and, to a lesser extent, Chile.8

4.4. **Application to East Asia**

What are the numbers for East Asia? The three most likely hubs in East Asia are plainly Japan, China and Korea, so we start with these.

4.4.1. **Hub-ness of Japan, China and Korea**

What our results show is the clear dominance of the Japanese market to East Asian nations. On average, Japan has twice the ‘hub-ness’ of China and China has twice the hub-ness of Korea (see Figure 4). Indeed, for almost every East Asian nation listed, Japan has an HM that is at least twice that of China (Loas and Cambodia are the exceptions). Interestingly, the HM for China is higher than that for Japan from the Korean perspective.

It should be noted that the level of the HM in East Asia is nowhere close to that of the US in the Western Hemisphere. Indeed, it is below that of Brazil for many nations.

4.4.2. **ASEAN, JKFTA and JKCFTA**

While hubs are traditionally associated with individual nations, some types of regional integration agreements make groups of nations into a single hub. For example, the EU is a customs union, so it is not possible to sign an FTA with, for example, only Germany. As a consequence, the markets of the 15 nations taken together are what matters.

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8 Note that the HMs are based on trade figures from 2002. Since the severe crisis in Venezuela reduced its imports from all sources, the figures would be even more impressive for a more normal year.
In East Asia the only grouping that is likely in the near future are Japan and Korea (depending upon the exact nature of that FTA), or Japan, Korea and China. ASEAN is a long way from implementing free trade among its own members and it is unlikely to be able to negotiate with third nations as a body. For example, one of its main members, Singapore, has proceeded to negotiate a slew of bilateral FTAs on its own. Nevertheless, we present the figures for ASEAN for comparison.

The results show that a JKFTA could be a really dominant hub in East Asia, even without China. For example, the HM for a JKFTA is over 10% for all East Asian nations and over 20% for most. Adding China, and presuming that the trio conducted third party relations in lock step, would create a JKCFTA. The results show that although the HM for this combination is higher, it is not a great deal higher for East Asian nations. The big difference comes for the EU (see Table 1 for exact figures).

We turn now to looking at the implications of these numbers for the future of East Asian regionalism.

**Table 1: HMs for Japan, Korea, China, ASEAN, JKFTA and JKCFTA**

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>Korea</th>
<th>China</th>
<th>ASEAN</th>
<th>JKFTA</th>
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</tr>
<tr>
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</tr>
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<td>7%</td>
<td>9%</td>
<td>19%</td>
<td>26%</td>
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</tbody>
</table>

Source: Author’s calculations based on IMF DOT data (bilateral trade flows are an average of 2000-2002).

### 5. Implications for the likely evolution of East Asian regionalism

At the end of 2003, the first hints of the ‘wildfire of regionalism’ can clearly be seen. No one, however, is in charge. There is no overarching plan for managing it. Judging from the history of unplanned regionalism in other areas of the world, the most likely outcome will be hub-and-spoke regionalism. The reason is simple. Bilateral trade flows in Asia form a hub-and-spoke pattern. As Section 3 argued, the mercantilist forces that drive nations’ trade policies tend to free up major trade routes, leaving minor trade routes un-liberalised. Because bilateral trade flows in Asia form a hub-and-spoke pattern, future FTAs are likely to follow the same pattern.
But who will be the hub in East Asia?
The results of the calculations in the previous section suggest that both Japan and China will naturally emerge as hubs.

5.1. East Asian bicycle: two hubs, many spokes

Tying the hub-ness findings to our political economy reasoning, it seems likely that the pattern of FTAs that will be signed in the next ten years will have two hubs, Japan and China – something like a bicycle (Figure 6). Of course, our numerical results are not essential to this prediction; it would also be suggested by a careful examination of the regional trade pattern. The merit of the rough quantification of ‘bilateral attractiveness’ is that it provides some discipline on what is usually an unruly analysis. One just cannot think of, say, Singapore or Vietnam as hubs even if they signed an FTA with every East Asian nation.

Figure 6: A possible FTA pattern: East Asian bicycle

Figure 6 is a schematic drawing of this prediction for East Asian FTAs. While it does not show all the FTAs (e.g. Singapore has signed many bilateral FTAs), it stylises the implications of rampant bilateralism. Since ASEAN is not an effective free trade area, it is shown as a dashed and irregular shaped line.

5.1.1. Problems with the bicycle

Some readers may interpret Figure 6 very differently. Indeed, I could have drawn it in a way that makes Japan and China the spokes with every other nation as a hub. This misses an important point. Hub status is all about market access. For most industries, domestic
market access is quite important, so it is worth noting the so-called ‘border effect’ (McCallum 1995). As it turns out, domestic firms have much, much better access to the domestic market than foreign firms do, even when those foreign firms have duty-free access. Consequently, the market access provided to a firm in Korea may be much less than one in Japan or China, even if there are Korean FTAs with both China and Japan, but no Japan-China FTA.

Another problem arises when considering that ‘law of the jungle’ bilateral FTAs between big and small nations naturally tend to reflect the concerns of the big nations much more than those of small nations – after all, market access is the currency in an FTA negotiation, so negotiators from big-market nations can ‘buy’ more than those from small-market nations. Given this hard fact of bilateralism, a spoke’s FTA with China and its separate FTA with Japan are likely to impose conditions that diminish the attractiveness of the spoke market.

While there are many, many other possibilities, it seems to me that the two-hub scenario is the most likely for East Asia – unless something is done to prevent it. That is the topic for the next section.

6. Anti-spoke strategies from around the world

The negative aspects of falling into the ‘spoke trap’ have long been recognised. The natural question then is, ‘How can East Asian nations avoid the spoke trap?’ A first step towards answering this question is to review the strategies of small nations in other parts of the world.

Europe is the first place to look for effective anti-spoke strategies for the simple reason that Europe has more than a century of experience with discriminatory trade arrangements (German principalities and city-states were cajoled and coerced into joining Prussia’s Zollverien between 1819 and 1867). Moreover, the other important precondition for the spoke trap – a very uneven distribution of economic size – is also met in Europe (see Figure 7).

6.1.1. Customs union solution: how to join the hub

Without a doubt, the most effective strategy for countering the spoke trap is a customs union. Not only does a customs union allow small nations to avoid the spoke trap, it automatically makes them part of the hub. This is the strategy adopted by the 19 small, tiny or miniscule European nations that are members of the EU by mid 2004.

For example, consider a small nation like Denmark, a nation that one might have expected to fall into the spoke trap – signing, for example, FTAs with its major trade partners Germany, France, the UK and Sweden but not signing FTAs with, e.g., Germany’s other partners.

Because Denmark joined the EU in 1975, it just did not have the spoke option. All EU members are part of a ‘full’ customs union, and full customs union members must have,

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9 For example, I devoted an entire chapter to them ten years ago in my book Baldwin (1994).
by definition, identical external trade policies. This means Denmark automatically has equal access to all the FTA partners of Germany and France. Or, to put it differently, since Denmark must have the same external trade policy as the natural hubs of Europe (Germany most of all, but also France, Britain and Italy), Denmark cannot become a spoke in a hub-and-spoke system. Rather, it makes Denmark part of the hub.

Figure 7: Size distribution of EU25 economies

Note: Data for 2000, not adjusted for national cost of living differences since we are interested in total market size in terms of internationally traded goods, not standards of living.

Abbreviations: Germany (D), the UK (UK), France (F), Italy (I), and Spain (E) and the Netherlands (NL). Small nations (1% to 3% of total EU25 GDP): Sweden (S), Belgium (B), Austria (A), Denmark (DK), Poland (PL), Finland (Fin), Greece (Gr), Portugal (P) and Ireland (Ire). Tiny nations (1% to 0.1%): Czech Republic (Cz), Hungary (H), Slovak Republic (SR), Luxembourg (L), Slovenia (Sl), Lithuania (Lith), and Cyprus (Cyp). Miniscule nations (less than one-tenth of one percent): Latvia (Lat), Estonia (Est) and Malta (Mal).


Customs union difficulties

Generally, customs unions require a level of political integration that very few nations can sustain politically. For example, Denmark has very little control over its own trade policy. For this reason, almost all successful customs unions are dominated by a hegemon (e.g. the South African Customs Union SACU), or involve deep political integration as in the case of the EU.

The example of Turkey

In Europe, for instance, Turkey is in a ‘partial’ customs union with the EU, i.e. a customs union with respect to industrial goods. When the 1996 EU-Turkey customs union entered into force, Turkey dropped all duties on industrial goods from the EU and set its MFN tariffs to those of the EU (the EU’s MFN tariffs are called the Common External Tariff or CET). Turkey did not immediately adopt all of the EU’s preferential tariffs (i.e. the EU’s
deviation from its MFN tariff structure), but phased this in progressively. Progress was especially slow for certain ‘sensitive’ products originating from third countries (e.g. ceramics, cars and shoes). See Harrison, Rutherford and Tarr (1996) for details and economic analysis.

This example illustrates an important nuance that is rarely stressed. Adopting a partner’s MFN tariff structure is not the same as adopting the partner’s external trade policy. One big difference is the partner’s preferential tariff schedule; the other – a contingent protection – does not concern us here.

A customs union’s great advantage over FTAs is that a customs union makes rules of origin unnecessary. Any product that is physically inside the customs union must have paid the common external tariff (CET). Having paid the CET, the product should then be free to circulate among customs union members without having to worry about where it was made. However as far as the EU is concerned, the key is that Turkey’s tariffs against third nations are never lower than the EU’s because this ensures that third-nation exporters will never use Turkey as a tariff-avoiding entry point to the EU market. (The practice of avoiding duties by bringing a product into an FTA thorough the member with the lowest external tariffs is called ‘trade deflection’.) For this reason, Turkey’s adoption of the CET is sufficient to rule-out tariff fraud and trade deflection. Turkey does not need to adopt all of the EU’s preferential rates. However, if Turkey does not adopt all the EU’s preferential rates, it is Turkey that runs the risk of tariff fraud, as, for example, cheap third-nation ceramics entry Turkey duty free after first having been imported duty free into Germany.

To summarise, forming a customs union with the regional economic powerhouse is a small nation’s most effective anti-spoke strategy. It is not, however, a strategy that many nations are willing to accept politically. This brings us to the next best strategy.

6.1.2. **EFTA’s solution: an FTA union’ that ‘shadows’ the hub**

The distinction between a common external policy and a common MFN tariff structure provides another solution to the spoke trap, although one that does not allow the spokes to become hubs. I call this the ‘FTA union’ solution.

**Phase 1: the FTA union**

EFTA nations have lived with the spoke problem for three decades – ever since the dominant founding member of EFTA, the UK, left the organisation to join the EU in 1975. Britain’s joining the EU would have normally required the British to impose the CET against its former EFTA partners. To prevent this, the EU negotiated FTAs with all the non-joining EFTAns (Austria, Switzerland, Norway, Sweden, Finland and Iceland). Importantly, however, the EFTAns in the 1970s did so in a coordinated manner – the FTAs were negotiated in parallel and the resulting EU-EFTA FTAs are almost identical. This helped them tame the usual law of the jungle where an FTA negotiation between a trade-giant like the EU, and a tiny nation, like Norway, ends up as one-sided affair.

Taken all together, the EFTAns were the EU’s second largest trading partner. Moreover, the EFTAns continued to maintain strong free-trade links among themselves, to avoid economic marginalisation effects.
Roughly speaking, the EFTAns became one big spoke, instead of a half dozen small spokes, due to the intra-EFTA free trade and the harmony across EU-EFTA FTAs.

It is critical to note that this was not the most natural outcome – it required an explicit joint effort on the part of the EFTAns. As I wrote a decade ago, ‘Although each EFTA did most of their trade with the EEC, they managed to avoid the pitfalls of hub-and-spoke bilateralism. In this light, EFTA of the 1970s and early 1980s should not be thought of primarily as a club of countries that trade with each other. EFTA was a group of small countries that had free trade agreements with the EEC and wanted to band together to avoid hub-and-spoke bilateralism.’ (Baldwin 1994 p.19 in the freely downloadable manuscript version). Plainly, this is a lesson from which many small East Asian nations might learn a lot.

Phase 2: ‘shadow’ the hub

Throughout its history, the EU has almost continuously signed FTAs. For example, it signed an FTA with Greece in 1959 and one with Spain in 1970. The pace accelerated in the 1990s in part due to the emergence of a dozen new democracies in Central Europe and in part due to the domino effect of the EU’s single market programme.

Be that as it may, the EU’s predilection for FTAs posed a problem for EFTA industry and governments. When the EU signed a free trade agreement with, for example, Poland in the early 1990s, EFTA-based industry was threatened. The EU-Poland bilateral meant that German firms would have duty-free access to the Polish market. Since Swiss, Swedish and other EFTA-based manufacturers have to compete with German firms in Poland, the EU-Poland bilateral threatened the competitiveness of EFTA-based industry.

To redress this potential discrimination, EFTA followed an explicit policy of shadowing the EU’s bilaterals. That is, every time the EU started on a new bilateral with a third nation, EFTA followed with its own bilateral with the same nation.

Near-hub status

Let’s think about the implications of this ‘shadowing’ FTA policy combined with the free trade among EFTAns and between every EFTA and the EU.

First, observe that the concatenation of the Stockholm Convention (EFTA’s founding document that ensures free trade among EFTA members in industrial goods), the Treaty of Rome (the EU’s founding document that ensures free trade among EU members) and the EU-EFTA FTAs (which ensure free trade in industry goods between every EFTA and every EU member) created a ‘virtual Western European free trade zone’ for industrial goods. And note that this resulted from the efforts of EFTA leaders, not the leadership of the EU (the EU would have been happy with the EU-EFTA bilaterals). This virtual free industrial trade zone is shown as the outer circle in Figure 8.

Second, note that by shadowing the EU’s FTA policy as a team, the EFTAns made sure that EU-based manufacturers never had better access to any market. In effect, this allowed EFTAns to attain what might be called ‘near hub’ status.

10 The deal was an ‘Association Agreement’, known as a ‘Europe Agreement’ that was an FTA plus some deeper integration measures. Signed in December 1991, it entered into force only in February 1994.
So why is this near-hub rather than hub status?

While near-hub status is good, it is not quite as good as hub status, at least as far as industrial competitiveness is concerned. The main differences require a more nuanced view of FTAs.

Figure 8: EFTA’s near-hub status in 1993

At the lowest level of analytical magnification, an FTA is simply bilateral free trade. But looking more closely, it is important to note that FTAs often exclude certain products – in Europe, for instance, the extremely protectionist agricultural policies of EU and EFTA nations mean that the above-mentioned FTAs excluded agriculture. Although the exclusion may in principle work in either direction (hub-based firms might face more or fewer exclusions), the economic size of the EU gives it a negotiating power that far exceeds that of the EFTAns. Consequently, one should not be surprised to see that EFTA firms face more exclusions than do EU firms.11

11 Note that one advantage of EFTA shadowing the EU FTAs is that the EFTA negotiators can take with the EU FTA deal as a starting point for the negotiations.
Also, FTAs involve rules of origin that often have important protectionist content and this aspect tends to disfavour industrial location in the near-hub as opposed to the hub. This disadvantage comes in two ways. First, the relatively greater negotiating strength of the EU means that the EU-spoke FTAs are likely to contain rules of origin that are more favourable to EU firms than the EFTA-spoke FTAs’ rules are to EFTA firms. To put this point more colloquially, might makes right in bilateral trade talks and the EU surely uses this might to favour its firms. EFTA surely tries to do the same but surely with less effect.

Second, rules of origin do not usually cumulate over all FTAs that a spoke has. For example, many Swiss manufactured goods use German components, but the Switzerland-Estonia FTA (negotiated together with other EFTAns) may not allow the German inputs to count towards Swiss origin even though Estonia also has an FTA with Germany. The general name for this class of distortions is known as ‘cumulation’ issues. Because relatively more EFTA firms rely heavily on EU inputs than EU firms rely on EFTA inputs, the cumulation problem is systematically more severe for firms located in the near-hub.

6.1.3. Singapore: cashing in on unilateral free trade

Every international economist knows that the optimal trade policy for a small economy is unilateral free trade. This is correct, but it is an incomplete answer. Optimal policy for a small nation is to remove all of its own trade barriers and sign every free trade agreement it can. After all, once the nation has dropped its own trade barriers, the trade diverting features of FTAs disappears and all that remains is the possibility of improved access to foreign markets. This is what Singapore is doing.

Another way to think of Singapore’s aggressive FTA strategy is as a means of ‘cashing in’ in terms of market access on the liberalisation that it undertook unilaterally. It is less clear what Singapore’s partners think they are getting out of the FTAs. On the whole, they have to view an FTA with Singapore as one of those low-costs-low-benefits-so-why-not-do-it type of policies.

Lessons?

One thing that is clear from this discussion is that Singapore’s FTA policy is really quite unique. It is something that holds very few important lessons for normal-sized nations and nations with organised domestic resistance to liberalisation.

6.1.4. Mexico’s solution: aggressive pursuit of hub status

Leaving aside the EU (the perennial RTA champion) and its near-hub shadow-ers, Mexico is the biggest user of FTAs in the world (see Table 2). What is Mexico up to? Mexico’s first foray into real regionalism came in 1990. Until the 1980s, Mexico had pursued protectionist and anti-foreign investment policies, especially vis-à-vis its giant neighbour. Its early 1980s debt crisis changed all that. Just like Asia’s 1997 crisis, the macro shock precipitated a Mexican volte-face on many levels, including a complete turn around on its inward oriented development strategy. Mexico unilaterally cut its tariffs and non-tariff barriers on a non-discriminatory basis, joined the GATT, and signed several bilateral trade accords with the US and Canada. The process culminated with the
Mexican President’s proposal in June 1990 for an FTA with the US. According to Whalley (1993), Mexican objectives were to improve and lock-in access to the US market, and to underpin its domestic economic reforms with the aim of attracting foreign direct investment. US President Bush (senior) rapidly agreed to bilateral talks. The US motives had little to do with trade liberalisation. The chief US aim was to foster stability in Mexico by boosting growth and locking in unilateral pro-market reforms. At Canada’s insistence, the US-Mexico talks were tri-lateralised and NAFTA was born.

Table 2: The world’s top 20 FTAers

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How to become a hub

Once NAFTA had been implemented, Mexico had zero tariffs on three-quarters of all of its imports. Moreover, because the US and Canada have very low MFN tariffs on their non-food, non-clothing imports, free trade with NAFTA is not much different than free trade with the world (with a few spectacular, but low-volume exceptions like steel).

What all this means is that Mexico had little to gain from keeping its MFN tariffs on industrial goods. Like Singapore, it had already gutted the protectionist content of its MFN tariffs. Or, more to the point, NAFTA had already eliminated the domestic special interest groups that would normally be expected to resist further liberalisation of industrial tariffs. Why not, then, go all the way for unilateral free trade? Or, better yet, why not get something in exchange and become a hub in a hub-and-spoke arrangement with the world’s trade giants, the US, the EU and Japan? This was Mexico’s anti-spoke strategy.
While almost 90% of Mexico’s exports go to NAFTA, Mexico sought FTAs with the EU and Japan. Having managed the EU-Mexico FTA, its exporters of industrial goods find themselves in the happy situation of being able to sell duty free to markets that accounted for 58% of world imports in 2002. If they get the Japanese FTA too, the figure will rise to 63%. In a nutshell, Mexico has become a hub (although obviously the abovementioned importance of domestic market size still matters). It did this by aggressively pursuing FTAs with the world’s largest importers, regardless of Mexico’s rather meagre mercantilist interest in those markets.

Additional, Mexico signed free trade agreements with its poor and economically small neighbours, including Honduras, Costa Rica, Columbia, Venezuela and many more. Since very little trade is covered by these bilaterals, one must assume that south-south politics rather than mercantile interest were the driving force. Indeed, Mexico has become the clear leader in Central America when it comes to trade relations. Like the EU, Mexico has adopted an all-FTAs-are-good attitude towards FTAs – what I call ‘open FTAism’. And these Latin American FTAs do help the other nations avoid discrimination in the Mexican markets. Of course, open-FTAism is one key component in the forces that tend to foster hub-and-spoke bilateralism.

This FTA strategy has worked marvellously. Mexican exports have quadrupled since 1990 with all of the growth accounted for by its non-oil exports. It has also doubled its inflow of foreign direct investment, and, although it suffered a macro shock in 2001, its foreign debt has come down steadily and is now less than a third of what it was in 1990.

Korea as the Asian Mexico?

It is not hard to imagine Korea emulating the Mexican strategy – signing an FTA with Japan and then China and the EU in an attempt to become a hub. This could be followed by an open-FTAism that is likely to produce a slew of bilaterals with East Asia’s many small nations. This may be more problematic for Korea than it was for Mexico. Mexico’s strategy worked exactly because it was so dependent on the US for both its imports and exports. After the US-Mexico FTA, the rest was easy. Korea’s trade pattern is much more diversified. Taken together, the Japan-Korea and China-Korea FTAs would cover only a quarter of Korean exports. Adding an EU-Korea FTA would boost the figure to 38%, but it would need a US-Korea FTA to win duty-free status for over 60% of its exports, at least using 2002 trade shares.

7. Anti-spoke strategy for East Asia: A proposal

A Japan-Korea FTA (JKFTA) is likely to spark a wildfire of regionalism in East Asia (Baldwin 2002). This is likely to create a web of hub-and-spoke bilateralism that will not be favourable for the region.

The best way to avoid this would be for the JKFTA to be a customs union with Japan and Korea agreeing in advance to allow any East Asian nation to join. While economically optimal, such a scheme is politically infeasible.
7.1. Plan A: An East Asian Free Trade Union

The next best option would be for Japan and Korea to form a sort of ‘Asian EFTA’, an association or union of nations that provide duty-free treatment to each others’ industrial exports. As pointed out above, this combination of two of the three largest economies in the region would create powerful forces for inclusion. Under this proposal, part of the JKFTA would be to establish procedures and an institutional framework that would allow other East Asian nations to join the Union, with China being at the head of the queue – indeed, Japan and Korea should probably consult with China to ensure that the new union was non-threatening to their northeast Asian neighbour. Under this scheme, each new member would automatically provide duty-free treatment to the industrial exports of all incumbent members in exchange for gaining duty-free access to all Union markets. Special rules to allow unilateral tariff concessions to least developed nations should also be considered (i.e. a Union-wide GSP policy that would operate like the US’s Caribbean Basin Initiative).

The advantages of this Union of East Asian Free Trade are many. This plan would:
- prevent, or at least greatly reduce, the likelihood that hub-and-spoke bilateralism would emerge in Asia; this would be especially beneficial to small East Asian nations that might otherwise fall into the spoke trap.
- avoid the ‘noodle bowl’ problem (the Asian version of the spaghetti bowl) of a tangle of FTAs, thus making the region as a whole more FDI friendly.
- bring coherence to rules of origin (ROOs) in the region, since the Union would establish principles for the ROOs (e.g., limit them to involving either value added rules, or change of tariff lines).
- Create ‘conditionally open regionalism’ in East Asia, which would result in many of the efficiency aspects of Open Regionalism (Bergsten 1996) while still harnessing the critical political forces that are generated by reciprocal trade liberalisation.
- Since Japan and Korea are developed nation WTO members, the Union would obey article 24 disciplines; this would make the Union’s market more attractive as a platform for production and as a market for third nation exporters and foreign direct investment (since there would be one set of trade rules, not n(n-1) bilateral FTAs for third nation exporters to deal with). This discipline would also make the Union less threatening to third nations.
- Since Japanese MFN tariffs are very low, and Korean MFN tariffs are relatively low, membership in the Union would expose Union members to something close to world market prices. This has two merits:
  - It greatly reduces the scope for inefficient switches from low-cost non-member suppliers to high-cost member suppliers (trade diversion)
  - It means that joining the Union would almost surely foster further liberalisation, as in the case of Mexico (see reasoning in Section 6).
7.2. Plan B: An FTA union

Japan and Korea may not be ready for the degree of institutionalisation of regional trade implied by Plan A, so here is a less ambitious scheme that also avoids hub-and-spoke bilateralism.

As part of the JKFTA, the two nations would agree to tightly coordinate their FTA policies with other East Asian nations. There are several aspects of this:

1) All future FTAs between Japan and Korea on the one hand and other Asia nations on the other hand would be required to include cumulation in rules of origin. This would go a long way to reducing the noodle bowl problem.

2) Japan and Korea would agree in advance that they would proceed on future FTAs in tandem.

3) A stronger form of this would require that all future FTAs between Japan and Korea on the one hand and other Asian nations on the other hand would be ‘multilateralised’, i.e. if China and Indonesia want FTAs with Japan and Korea, then China and Indonesia should also sign an FTA between themselves.

While this might slow the pace of East Asian regionalism in the short term, it would result in a better long-run outcome.

8. Concluding remarks

While the East Asian ‘wildfire’ of regionalism has not yet started, smoke is in the air and flames are likely to burst out very soon. The world should be concerned that there is no plan for managing regionalism in this critically important region. This paper presents an analysis that suggests that a two-hub arrangement of hub-and-spoke bilateralism is a likely outcome, unless regional leaders take explicit action to prevent this divisive situation from arising. It also puts forth two proposals to redress the problem, proposals that would allow East Asia to avoid the spoke trap.

References


