

The economic effects of PTAs

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Introduction¹

Preferential trade agreements (PTAs) come in various shapes and sizes. So when economists think about the potential economic effects of these agreements, they need to think about the political economy considerations that dictate their size and shape — what provisions go into them, and sometimes just as importantly, what provisions are left out. They can then appeal to economic theory to establish the economic effects of those provisions.

What follows is a short history of the development of PTAs, followed by a summary of the economics of PTAs. The paper then assesses the typical coverage of recent PTAs, and finally offers an assessment of the likely effects of such PTAs, relative to other paths to deeper economic integration.

A short history of PTAs

The ‘first wave’ of PTAs in the 1950s to 1970s were generally limited in scope, with preferential liberalisation of tariffs on goods trade playing a central role (the EU was an important early exception). In part, this was because general tariff levels were relatively high to start with.

Interest in PTAs revived early in the 1980s as the United States reacted first to EU expansionism and the loss of EU markets, and then to the uncertain prospects for launching the Uruguay Round, by selecting partners for bilateral and regional trade arrangements. The ‘second wave’ agreements were predominantly ‘free trade agreements’, where members retained their own external tariffs, as opposed to ‘customs unions’, which adopt a common external tariff. So rules of origin became important, to prevent imports entering through the country with the lowest external tariff and then being shipped duty-free to all other PTA members. Preferential rules of origin prevent this by dictating that a certain amount of processing must occur (or a certain amount of value must be added) in the first country, before the goods can be shipped duty-free elsewhere in the PTA. The rules can be quite complex and restrictive. The ‘second wave’ of PTAs also saw the inclusion of provisions on non-tariff barriers and other non-traditional areas, such as dispute resolution and competition policy. However, the sectoral focus remained on goods markets.

During the 1990s the number of PTA expanded dramatically. In addition to new preferential initiatives by the European Union and the United States, the ‘third wave’ now

¹ This paper summarises parts of Dee and Gali (2005), Dee (2005), Dee (2007a), (2007b) and Dee and Findlay (2007).

includes players such as Japan. Until 2002 Japan was one of only four WTO members not to participate in any PTA (although it was a member of non-discriminatory APEC). Its first agreement, the Japan-Singapore Agreement for a New Age Partnership, typifies many 'new age' agreements. The provisions in this agreement governing merchandise trade are very limited. Both countries already have zero or very low tariffs on imports of non-agricultural products, and trade in agricultural products between them is minimal, but because of the sensitivity of the trade in cut flowers and goldfish, agricultural and fishery products (along with some petrochemical and petroleum goods) were excluded from the bilateral agreement altogether. Instead the agreement focused on 'new age' issues — especially e-commerce and services. Other new age agreements include provisions on foreign direct investment, intellectual property, competition policy, government procurement, labour and environmental standards.

The economics of PTAs

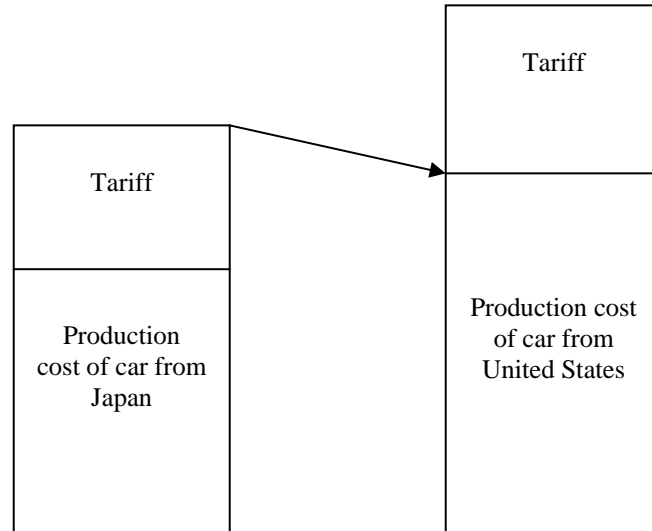
Tariff liberalisation in PTAs

In general terms, economists recognise that while tariffs might benefit producers in the protected sector, they impose a cost on consumers. Conversely, opening up the home market can hurt producers, when lower priced imports squeeze profits. But from a consumer perspective, lower priced imports make the family budget go further. So whether the opening up of the home market is seen as a plus or a minus depends on whether a consumer or a producer perspective is taken.

Informed public policy making should take both perspectives into account. And economic theory suggests that normally, the benefits to consumer would outweigh the costs to producers, so the country as a whole should benefit from the opening up of the home market. This is the basis on which Australia has lowered its tariffs unilaterally on a wide range of goods over the last few decades.

However, there is one important reason why lowering tariffs on a preferential basis for one trading partner, as opposed to on a unilateral basis for all trading partners, may not yield the same benefit. The reason is shown in figure 1. As it is drawn, when tariffs are levied on comparable cars from both Japan and the United States (think of Honda Civics, which are made in both places), Australians would source from Japan because the total tariff-inclusive price is cheaper. When US cars became tariff-free, say because of the Australia-US Free Trade Agreement, Australians would switch their source to the United States. Australian consumers would get slightly cheaper cars, as shown by the arrow. The car price would not fall by the full extent of the tariff, because US production costs are higher than in Japan. But Australia would lose all its tariff revenue on cars.

Figure 1 **Illustrating trade diversion — Australia’s sourcing of (comparable) cars**



Normally, under unilateral tariff cuts, this loss of tariff revenue would not matter — what the government lost, consumers would gain in full measure, in the form of cheaper cars. But under preferential tariff cuts, most of the tariff revenue goes, not to Australian consumers, but to US producers, to make up for their higher production costs. For this reason, preferential trade deals made with trading partners who are not world-best producers are as much about redistributing tariff revenue as they are about getting the benefits of lower cost imports. And the greater the tariff initially, the more scope there is for this trade diversion.

There are two possible offsetting benefits from a PTA.

First, Australia may end up importing more cars from the United States than it did from Japan. This additional trade can generate small net gains, because it displaces less efficient local production. Economists call these ‘allocative efficiency gains’ from trade creation. They also occur when tariffs are cut unilaterally. But in preferential trade deals, the allocative efficiency gains per unit of trade created will typically be much smaller than the uncompensated loss of tariff revenue per unit of trade that is diverted. So the overall effect is likely to be negative. Strictly speaking, the net gains or losses cannot be determined just from measuring the volumes of trade that are created or diverted, although trade volumes are often used as a proxy measure.

Second, Australia could also gain from the market opening in the United States. Contrary to popular belief, the resulting additional exports are not *per se* good for Australia, because real resources are required to produce them — resources that could otherwise have been used to make goods and services for use at home. The additional exports will benefit Australia to the extent that at least some of them can be sold at a price above the resource cost of production. This depends on Australia having some niche market power in the US market.

A further complication is that the resulting changes in imports and exports may themselves trigger changes in the prices at which PTA partners can sell goods to each other or to third parties (over and above the changes caused by the tariff cuts). The patterns of such ‘terms of trade’ changes can be quite complicated, but they will tend to operate against countries with high tariffs, relative to those of their PTA partners, and to operate in favour of countries with low tariffs, relative to those of their PTA partners (Mundell 1964). This is the basis of Panagariya’s (1999) conclusion, for example, that the United States is likely to have gained, but that Mexico could have lost, from NAFTA.

The overall conclusion of economists is that although PTAs ease one economic distortion, namely, the average tariff on imports in general, they exacerbate another, namely, the geographical disparity in import tariffs. This is a classic situation of ‘second best’, with no clear presumption in favour of gains to either PTA members or the world as a whole. The answer ‘depends’, and the devil is in the detail.

The detail to be considered includes possible terms of trade changes, as just noted. It also includes additional features of the PTAs themselves. One such feature is emergency safeguard mechanisms — temporary tariff increases that can be invoked to protect against a ‘damaging’ surge of imports from a PTA partner. Another feature is carveouts of sensitive sectors — the Australia-US Free Trade Agreement excluded sugar, for example, and East Asian PTAs tend to exclude rice. Both these features tend to add to the possibility of negative outcomes, because they add to the disparity in levels of protection across sectors. A final important feature is complex rules of origin, which may blunt the extent of liberalisation, but add considerably to administration and compliance costs, and also distort input choices in order to meet the rules.

The economic literature has also recognised that if it ‘depends’ whether a PTA creates a net benefit to its participants, then the question is an empirical one. There have been two distinct ways of assessing the effects of PTAs empirically.

The first method is to examine how trade volumes change historically between countries that enter a preferential trade arrangement, as well as with their other trading partners. The aim is to determine whether PTAs have encouraged imports in general — trade

creation — more than they have pushed the geographic source of imports in the ‘wrong’ direction — trade diversion. As noted earlier, there is no direct relationship between the *benefits* of trade creation and diversion on the one hand, and the *volumes* of trade created or diverted in the other. This is because the costs per unit of trade diverted typically exceed the benefits per unit of trade created. What can be said though, is that if more trade is diverted than is created, the net effect is sure to be a loss. If more trade is created than is diverted, there *might be* a net gain.

One difficulty with this approach is the need to control for all the other factors that affect the volumes of trade among countries, in addition to some of them signing a free trade agreement. The so-called gravity model approach has been the standard way of correcting for these other factors, which include the relative sizes of the economies, and the distance between them.²

One recent gravity model study, which controlled for many more factors than any previous studies, found that among 18 recent agreements, 12 had diverted more trade from non-members than they had created among members (Dee and Gali 2005). What is more, some apparently quite liberal agreements had failed to create additional trade among members, relative to the average trade changes registered among countries in the sample. The paper also reviews the existing empirical literature.

The gravity model approach can only look at agreements after the event, once there are some post-agreement trade patterns to examine. It cannot be used to assess agreements that are prospective. However, it does have the advantage of assessing the impact of agreements as they are actually implemented, in all their complexity, and with all their reservations and exceptions.

The second way of assessing the possible trade effects of the agreement is to build a structural economic model of each country’s production and trade patterns, and to use the model to project what would happen if just trade barriers, and nothing else, changed between the countries. Such models are tools for doing controlled experiments, in the absence of being able to organise them in real life. They can be used to evaluate prospective agreements, but are limited to assessing provisions that can be easily modelled. The results of two such modelling exercises are reported in a later section.

² More recent ‘post-gravity’ evaluations have more complex theoretical underpinnings, but somewhat similar empirical implementation — see Carr, Markusen and Maskus (2001) and Markusen and Maskus (2002), for example.

Liberalisation of services and investment in PTAs

If trade diversion is a problem for goods trade, is there a comparable problem for services and investment? The answer is ‘sometimes’, depending on the nature of the trade barrier. Typically, the barriers to services and investment do not generate tariff revenue. But some of them can be tariff-like, in the sense of creating artificial restrictions on the quantities of services or investment, and artificial profits (sometimes call ‘rents’) for service providers or investors. Empirical research suggests that the regulatory restrictions in banking and telecommunications, and some of the barriers in the professions, tend to be of this form (Kalirajan et al. 2000, Boylaud and Nicoletti 2000, Warren 2000, Nguyen-Hong 2000, Barth, Caprio and Levine 2004, OECD 2005, Copenhagen Economics 2005). When barriers are lifted preferentially, these artificial profits or rents can be redistributed between countries in the same way as tariff revenue, leading to a comparable problem of trade diversion.

Alternatively, some barriers to services or investment do not create artificial profits. They do the opposite, by increasing the real resource cost of delivering the service or making the investment. Again, empirical research suggests that the regulatory restrictions in distribution services, electricity supply, maritime, and some of the barriers in the professions, tend to be of this form (Kalirajan 2000, Steiner 2000, Nguyen-Hong 2000, Clark, Dollar and Micco 2004, OECD 2005, Copenhagen Economics 2005). When barriers are lifted preferentially, real resource costs fall, with an unambiguous gain.

What is actually included in PTAs?

These findings suggest that PTAs are more likely to generate unambiguous benefits for members if they include non-tariff provisions that tackle the regulatory restrictions that raise real resource costs. A key question is whether recent PTAs do this.

One recent assessment is by Dee (2007a). The paper examines whether PTAs are an effective way to promote deep economic integration. The aim of such integration is to remove the market segmenting effects of behind-the-border barriers so that domestic prices are no higher than they need to be, relative to foreign prices. The relevant barriers need not be explicitly discriminatory against foreign suppliers, but could affect domestic and foreign suppliers equally. Removing these market segmenting barriers would bring domestic and foreign prices closer together, although (because of niche market effects) it may not bring them into full equality. In doing so, deep economic integration should promote the most efficient allocation of resources and so maximise real incomes.

The paper acknowledges that those PTAs that have addressed behind-the-border issues in their chapters on services and investment have generally gone further than the General

Agreement on Trade in Services under the WTO (see also Roy, Marchetti and Lim 2006 and Dee and Findlay 2007). However, the PTAs have still tended to be selective in two important ways:

- they have tended to be preferential, even in the provisions that go beyond goods trade; and
- they have tended to target only those provisions that explicitly discriminate against foreigners.

The paper argues that there are strong political economy explanations for both of these outcomes.

With some exceptions, recent PTAs have tended to do one of two things in the new age areas (including services) — either bind the status quo, or make concessions on a preferential basis, even when logic suggests they could sensibly be made non-preferentially.³ One very clear reason for this outcome is that countries with strong ‘offensive’ interests in the Doha Round are unlikely to give away negotiating coin by making defensive concessions on a non-preferential basis within a PTA, prior to a Doha Round settlement. This reason for selectivity need not apply in the WTO itself. But other reasons for selectivity may apply in both forums.

Partly because they have been preferential, recent PTAs have tended to target only those provisions that explicitly discriminate against foreigners. This is because, in many cases, the only provisions that can feasibly be liberalised on a preferential basis are those that discriminate against foreigners.⁴

But even without this feasibility constraint, there are economic and political economy forces that tend to limit concessions within PTAs to those that explicitly discriminate against foreigners. The central one is the threat to sovereignty that is felt most strongly by countries when contemplating making reforms to non-discriminatory domestic regulatory regimes as part of a trade agreement. To many countries, both developed and developing, this may be viewed as too much of a threat to the ‘right to regulate’.

³ For example, two of Australia’s concessions in the Australia-United States Free Trade Agreement were the lifting of Foreign Investment Review Board screening on inward foreign direct investment in non-sensitive sectors, and a commitment to provisions similar to those in the WTO Agreement on Government Procurement. Both measures were made preferentially, even though the arguments advanced by the Australian Government would have applied *a fortiori* to non-preferential liberalisation.

⁴ The converse does not hold. Because some provisions do discriminate against foreigners, it does not mean that they can be liberalised on a preferential basis. For example, when countries liberalise restrictions on foreign ownership, it may be very difficult to ensure that the new foreign owners are only from selected partner countries.

Negotiating modalities have also contributed a focus on provisions that explicitly discriminate against foreigners, not just in PTAs but also in the WTO. The request-and-offer modality is currently being used in the Doha negotiations on services, and is the means by which many PTAs are negotiated. Under this modality, countries are asked to contemplate, not just reforms that are in their own best interests, but reforms that are in their trading partners' best interests. It will tend to be in a trading partner's best interests to target only those provisions that explicitly discriminate against foreigners — in this way, the foreign market share is maximised. Foreign producers would generally have little interest in unleashing competition from promising domestic new entrants. They would rather join a cartel on a far more selective basis! And in these circumstances, the liberalising countries risk simply handing monopoly rents to foreigners. Indeed, this is the basis of the East Asian desire to have safeguard provisions in services negotiations.

A further consideration is one of visibility. Regulatory regimes are always complex, and often not very transparent to insiders, let alone outsiders. The regulations that will tend to be visible to potential foreign entrants are those that discriminate against foreigners.

A final consideration is the requirements for WTO consistency. WTO disciplines under the General Agreement on Trade in Services (GATS) only require PTAs to remove explicit discrimination against foreigners. They do not require them to address regulatory restrictions that affect domestic and foreign suppliers equally.

The likely economic effects of recent PTAs

Dee (2007a) then uses a structural economic model to examine the likely effects of a prospective East Asian PTA, relative to other paths to deeper economic integration in the region. The paper distinguishes two forms of behind-the-border economic cooperation. The first is granting national treatment, which is GATS terminology for removing discrimination against foreigners — either in the terms on which they enter the market, or the conditions under which they operate once they have entered. Granting national treatment is what tends to occur in PTAs or in the WTO. The other strategy is comprehensive domestic regulatory reform, defined as removing all the non-discriminatory regulatory restrictions that affect domestic and foreign entrants equally. This strategy tends not to occur in either PTAs or in the WTO (except through specific agreements such as the GATS Reference Paper on Telecommunications, which is largely a template for domestic regulatory reform).

The paper then goes on to assess the economic effects of three alternative scenarios:

- a PTA among ASEAN+3 members (the ASEAN countries plus China, Japan and Korea), involving elimination of tariffs on manufactures on a preferential basis, and

the granting of national treatment to other ASEAN+3 members in various services sectors for which estimates of behind-the-border regulatory barriers were available;

- an indicative (and possibly optimistic) Doha Round settlement, involving a 25 per cent cut in agricultural protection (tariffs, export subsidies and domestic support), a 25 per cent cut in tariffs on manufactures, and the granting of national treatment to all other WTO members in the same services sectors; and
- comprehensive domestic regulatory reform in each of the ASEAN+3 members.

It was thus judged that significant progress on agricultural trade reform would not occur in an ASEAN+3 PTA, but would require multilateral action in the Doha Round, since this has been the pattern to date. The paper compares the effects of these three scenarios on the economic well-being of the ASEAN+3 countries as a group.

Dee (2007a) shows that if an ASEAN+3 PTA managed to eliminate all discrimination against foreigners in these sectors where empirical evidence is available, the gains would be small compared to a successful completion of the Doha Round. And they would be trivial compared to a comprehensive program of unilateral regulatory reform, one that instead targeted non-discriminatory behind-the-border restrictions that affected domestic and foreign suppliers equally.

A key reason for this finding is that there appears to be a reasonably strong correlation in practice between measures that discriminate against foreigners and measures that create rents. In a broad sense, this is understandable. One of the easiest ways to discriminate against foreign suppliers is to create explicit artificial barriers to their entry, either cross-border or via direct investment, and these barriers tend to create rents rather than increase costs.

A second paper (Dee 2007b) extends the analysis of Dee (2007a) to consider the economic effects of Asian integration pursued through the East Asian Summit (or ASEAN+6) grouping — a grouping that covers the ASEAN+3 countries along with Australia, New Zealand and India. This allows an assessment of whether the size of the group influences the relative attractiveness of the formal PTA route to economic integration, relative to a multilateral route through the WTO, or through comprehensive domestic reform.

Accordingly, the analysis considers five possible scenarios:

- a PTA among ASEAN+3 members;
- a PTA among ASEAN+6 members;

- a possible Doha Round settlement;
- comprehensive domestic regulatory reform in each of the ASEAN+3 members.
- comprehensive domestic regulatory reform in each of the ASEAN+6 members.

The content of each scenario is kept qualitatively the same as in Dee (2007a). The analysis compares the effects of these three scenarios on the economic well-being of the ASEAN+3 countries as a group, the additional three East Asian Summit members as a group, and the entire ASEAN+6 grouping. So the analysis can show the effects of integration strategies involving ASEAN+3 on those countries such as Australia and India that would be left out of the group. It can also show the effects on the smaller ASEAN+3 group of extending the membership of the group to ASEAN+6. In short, the results can show the full payoff matrix from extending the group membership.

Even with the bigger PTA grouping, the relative benefits of the alternative paths for the core ASEAN+3 group of countries are about the same as in Dee (2007a). The PTA route provides gains that are still only two-thirds as big as those from a successful Doha Round, and about a quarter of those from comprehensive unilateral regulatory reform.

The results confirm that India, Australia and New Zealand would be worse off than they otherwise would be if ASEAN+3 were to form a PTA without them. But interestingly, they do not gain much as a group from being included in the PTA either.

A key driver of this latter finding is that India is projected to be slightly worse off than otherwise from its inclusion in an ASEAN+6 PTA. According to the levels of tariff protection embodied in the model, India's tariffs on manufacturing are higher on average than elsewhere in the ASEAN+6 grouping, despite its recent trade reforms. India is thus susceptible to terms of trade losses from joining a PTA with more open trading partners. This has been highlighted as a theoretical possibility by Panagariya (1999, 2000). It is reflected in the projections in Dee (2007b).

China is projected to suffer from the same phenomenon when the PTA is restricted to ASEAN+3, and for the same reason. Both India and China are therefore likely to be much better off when tariff liberalisation takes place multilaterally, with many more trading partners. The terms of trade effects are much more likely to be benign in these circumstances than when they join a PTA with a few, more open trading partners. So while the Doha route to integration looks only mildly preferable to the PTA route for the groups to which India and China belong, the Doha route is strongly preferable to them as individual countries. In fact, for India, Australia and New Zealand as a group, a successful Doha Round settlement is projected to be almost as worthwhile as comprehensive domestic regulatory reform to which they were a party. Elsewhere in the

Asian region, comprehensive domestic regulatory reform clearly dominates both the multilateral and PTA strategies as a way of raising real incomes.

Conclusion

The analysis suggests that for most of the Asian region, comprehensive domestic regulatory reform dominates as an integration strategy, while PTAs deliver relatively trivial gains. Multilateral action is an intermediate strategy, and is important for delivering trade liberalisation in sensitive sectors or in highly protected economies. The results appear to be relatively robust to the size of the Asian PTA grouping.

These empirical findings have been based on available studies of impediments to competition in selected services sectors. New age PTAs cover more than this. So are the results likely to generalise? There is one important reason to think so. The art of good competition policy (broadly defined) is to put regulations in place to protect competition, *not* to protect particular competitors. When PTAs are preferential, they are protecting particular competitors — a country's trading partners. They are thus the antithesis of good competition policy.

There are measures that are often taken in PTAs that are not preferential. Much of these fall under the rubric of enforcement — enforcement of intellectual property protection, enforcement of quarantine regulations, enforcement of technical standards, enforcement of customs regulations through good customs administration. And often PTAs involve promises of technical assistance to help with these enforcement issues. In these respects, PTAs can be a useful complement to a domestic regulatory reform program. But this presupposes that the measures that are being enforced are in a country's best interests. For some of the provisions ensuring intellectual property protection, for example, this is not always clear (Dee 2005).

Proponents of 'deep' economic integration often stress the benefits of using PTAs to achieve harmonisation of standards or mutual recognition of qualifications and accreditation requirements. This discussion is often in the context of North-North agreements between partners of similar size and economic income, where much of the trade between them is intra-industry trade, or even intra-firm trade among the affiliates of multinational companies. When trade is two-way, there is a need for recognition to be mutual. When trade patterns are governed more by considerations of comparative advantage, and when trade is one-way, it is less clear why the adoption of accreditation requirements requires coordination across governments. For example, Singapore is a net importer of medical skills, and its professional medical bodies have developed their own lists of acceptable qualifications, completely outside of a PTA framework. While it is

clear that shared standards reduce trade costs (Moenius, 1999), countries can achieve this by unilaterally adopting recognised international standards.

In short, there may be a few limited areas in which PTAs could usefully supplement a domestic regulatory reform program. But the main conclusion is that, because PTAs tend to be preferential, even in their new age provisions, they would tend to focus reform efforts away from where the big gains are to be made.

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