The theory of preferential trade agreements (PTA’s), or what might be described in policy terms as the General Agreement on Tariffs and Trade (GATT) Article XXIV sanctioned free-trade areas (FTA’s) and Customs Unions (CU’s), has undergone two phases of evolution, in two very different modes, largely reflecting the contrasting policy concerns of the time. In this paper, we trace this evolution, offering both a historical context and an intellectual coherence to diverse analytical approaches.

I. Static Analysis: Trade Creation and Trade Diversion

A. Viner: Cutting Tariffs Preferentially

It is well known that Jacob Viner (1950) pioneered the static analysis of PTA’s. His analysis was prompted by policy concerns about PTA’s, tracing from the Havana Charter for the aborted International Trade Organization (ITO). The formation of the European Community in 1957, and of the European Free Trade Agreement (EFTA), then gave a more direct policy dimension to this theory and led to important analytical insights, especially from the work in the 1950’s of Richard Lipsey and Kelvin Lancaster, Harry Johnson, and James Meade.

The essential message of the Vinerian approach was that PTA’s, as distinct from non-discriminatory trade liberalization, could harm both a member country and world welfare. PTA’s could be “trade diverting” or “trade creating.” These Vinerian concepts have been reworked by many, but the essential point, reflecting the theory of the second best, remains an important contribution.

The policy implications of the Vinerian theory, however, have been badly misunderstood in recent discussions. In particular, it has been proposed by Paul Wonnacott and Mark Lutz (1989), Lawrence Summers (1991), and others that if the countries forming a PTA are “natural trading partners,” then the trade-creation effects will outweigh the trade-diversion effects, making the PTA beneficial to its members. The key criterion used for defining “natural partners” is a high initial volume of trade among them.

But, as first argued in Panagariya (1995) and elaborated with necessary theoretical nuances in Bhagwati and Panagariya (1996), this view is untenable, and it is easy to show that a higher initial volume of trade can be a significant loss to a member country because of the “tariff revenue redistribution” between member countries that it entails. One can also construct plausible models in which the trade diversion has no necessary relationship to the initial volume of trade. Finally, the initial high volume may itself be a result of preferences rather than “natural”—as is probably true for the United States and Mexico because of offshore-assembly provisions, and for the United States and Canada because of the long-standing GATT-sanctioned preferential free trade in autos, a big-ticket item.

Following Paul Krugman (1991), Jeffrey Frankel et al. (1995) have also argued that
lack of distance and, hence, reduced transport costs should define beneficial natural trading partners. But in Bhagwati and Panagariya (1996), we show that this is also an untenable argument: we construct an example where a country is better off forming a PTA with a distant rather than a proximate country when these two countries are otherwise identical.

B. Kemp-Wan-Ohyama: Necessarily Welfare-Improving CU

While the Vinerian approach has proved to be the most potent in theory and in policy thinking, it violated the layman-like view, which may be now corrupting the policy domain, that PTAs were a good thing since they were a move toward free trade. The beauty of the influential 1976 paper by Murray C. Kemp and Henry Wan, anticipated by Michihito Ohyama (1972), was to show that one could always construct a welfare-improving CU among any subset of countries while the non-members were left at their initial welfare.

The Kemp-Wan demonstration, however, is really a “possibility theorem.” Recently, economists such as Christopher Bliss (1994) and T. N. Srinivasan (1995) have begun to put structure on the analysis; Srinivasan, for example, proceeds to compare the Kemp-Wan tariff, under alternative models, to the Article XXIV requirement that the common external tariff of a CU should, on average, be unchanged.

C. Cooper-Massell-Johnson-Bhagwati: CU to Minimize Cost of Industrialization

After the Treaty of Rome, many developing countries sought (unsuccessfully, in the end) to form similar PTAs or CU’s on the ground that, given the protection against the industrialized North, they could liberalize among themselves and reduce the cost of their industrialization, an idea that was developed independently in C. A. Cooper and B. F. Massell (1965), Harry Johnson (1965), and Bhagwati (1968).

Only recently has a proper proof of this proposition been provided by Pravin Krishna and Bhagwati (1994) who saw that the argument could be proved simply as a version of the Kemp-Wan theorem with an added policy instrument thrown in to achieve the targeted degree of member-country industrialization.

D. Brecher-Bhagwati: Member-Country-Welfare Effect of Policy and Parametric Changes in a Common Market

Alternatively, the case where there is a common market, with full factor mobility, has been analyzed by Richard Brecher and Bhagwati (1981). That paper also considers how the effect of changes—such as in the external tariff or in technical know-how or in capital accumulation—affects the welfare of individual countries. This analysis is clearly relevant to analysis of policy questions such as the effect of a change in the Common Agricultural Policy on, say, British welfare.

E. Grossman-Helpman-Krishna: The Political-Economy-Theoretic Analysis of PTA Formation

Finally, with the recent interest in the theory of political economy and the desire to analyze why PTAs are becoming popular, the cutting-edge theory of PTAs has moved into modeling the incentives to form PTAs. The chief insight of Gene Grossman and Elhanan Helpman (1995) and of Krishna (1995) is to show how trade diversion provides a principal motive for forming such PTAs.

In addition, the political-economy analysis of PTAs has been extended to other questions. Thus, Panagariya and Ronald Findlay (1996) have shown how reduced protection in a PTA can lead to incentives to raise tariffs on non-member countries—a policy issue of importance since such raising of barriers is possible with administered protection.

II. Dynamic Time-Path Analysis: Building versus Stumbling Blocks

In contrast to the question of whether the immediate (static) effect of a PTA is good, we may ask whether the (dynamic time-path) effect of the PTA is to accelerate or decelerate the continued reduction of trade barriers toward the goal of reducing them worldwide.
We now have the key concepts in the dynamic time-path case of PTA’s acting as “stumbling blocks” or “building blocks” toward worldwide nondiscriminatory trade liberalization, introduced by Bhagwati (1991), just as Viner (1950) introduced the key concepts of trade diversion and trade creation for the static analysis.

A. Formulating the Dynamic Time-Path Question

The time-path question may be formulated analytically in two separate ways.

**Analytical Question I.**—Assume that the time-path of MTN (multilateral trade negotiations) and the time-path of PTA’s are separable and do not influence each other, so that neither hurts nor helps the other. Will the PTA time-path then be characterized by stagnant or negligible expansion of membership; or will there be expanding membership, with this even turning eventually into worldwide membership as in the WTO, thereby arriving at nondiscriminatory free trade for all? The analysis can be extended to a comparison of the two time-paths, ranking the efficacy of the two methods of reducing trade barriers to achieve the goal of worldwide free trade for all.

**Analytical Question II.**—Assume instead, as is plausible, that if both the MTN and the PTA time-paths are embraced simultaneously, they will interact. In particular, the policy of undertaking PTA’s will have a malign or a benign impact on the progress along the MTN time-path.

Question I can be illustrated with the aid of Figure 1, which portrays a sample of possibilities for the time-paths. World welfare is put on the vertical axis, and time is put on the horizontal axis. For the PTA time-paths drawn, an upward movement along the path implies growing membership; for the MTN time-paths, it implies nondiscriminatory lowering of trade barriers among the nearly worldwide WTO membership instead. The PTA and MTN time-paths are assumed to be independent of each other, not allowing for the PTA time-path to either accelerate or decelerate the course of MTN (thus ruling out the type of issues in Question II). The goal can be treated as reaching $U^*$, the worldwide freeing of trade barriers on a nondiscriminatory basis, at a specified time.

Question I can then be illustrated by reference to the PTA paths I–IV. Thus, PTA’s may improve welfare immediately, in the static sense, or reduce it. In either case, the time-path could then be stagnant (as with time-paths II and III), implying a fragmentation of the world economy through no further expansion of the initial trade block; or it could lead (paths I and IV) to multilateral free trade for all at $U^*$ through continued expansion and coagulation of PTA’s. Under process-multilateralism, the time-path may fail to reach $U^*$ and instead fall short at $U_m$ because of free-rider problems; or it may overcome them and reach $U^*$. This diagram assumes that the time-paths are independent, so that embarking on a PTA path does not affect the process-multilateralism path. The text, however, discusses such interdependence. (The figure is adapted from Bhagwati [1993].)
from multilateralism as the goal desired), the
time-path may fail to reach $U^*$ and instead fall
short at $U_m$ because of free-rider problems.

As indicated, if the PTA and MTN time-
paths are interdependent, we can address
Question II. In that case, the MTN time-path
becomes a function of whether the PTA time-
path is traveled simultaneously.

The dynamic time-path question has arisen,
just as the static one did, in policy concerns
and political decisions that ran ahead of the
theory. It arose in the context of the U.S. fail-
ure to get an MTN round started at the GATT
in 1982 and the U.S. decision finally to aban-
don its avoidance of Article XXIV sanctioned
PTA's. This was Hobson's choice: if the MTN
could not be used to continue lowering trade
barriers, then PTA's would need to be used
instead.

But the United States has wound up becom-
ing committed to "walking on both legs," em-
bracing both the PTA and the MTN paths; and
its spokesmen have implied that PTA's will
have a beneficial impact through induced ac-
celeration of MTN. The questions that we have
distinguished above spring therefore from this
the challenge to international-trade theorists
(to analyze these questions) was first identified
and a preliminary set of arguments offered.
We now systematize the theoretical literature
that has developed subsequently.

B. "Endogenously Determined" Time-Paths:
A Diversion

First, consider theoretical approaches which
are not meaningful for thinking about the dy-
namic time-path questions at hand.

1. Kemp-Wan. — The approach of Kemp
and Wan (1976) seems to be pertinent to our
questions but is not. Clearly, the PTA time-
path to $U^*$ in Figure 1 can be made monotonic,
provided the expanding membership of a PTA
always satisfies the Kemp-Wan rule for for-
mimg a CU. But what this argument does not say,
and indeed cannot say, is that the PTA will
necessarily expand in this Kemp-Wan fashion.

2. Krugman. — The same argument applies
to the theoretical approach introduced by

Krugman (1991), where again the expansion
of membership is treated as exogenously spec-
ified, as in Viner (1950), and the world welfare
consequences of the world's mechanically
dividing into a steadily increasing number of
symmetric blocs are examined. Srinivasan
(1993) has critiqued the specific conclusions
as reversible when symmetry is dropped. But
the main problem is the apparent irrelevance
of this approach to the incentive-structure dy-
namic time-path questions that are of central
importance today.

C. "Endogenously Determined" Time-
Paths: Recent Theoretical Analyses

The analysis of the dynamic time-path
question has moved into formal political-
economy-theoretic modeling. We provide here
a synoptic review of the few significant con-
tributions to date, organizing the literature
analytically in light of the two questions dis-
tinguished above.

Question I. — The single contribution that
focuses on Question I (i.e., the incentive to add
members to a PTA) is by Richard Baldwin
(1993), who concentrates, in turn, on the in-
centive of nonmembers to join the PTA. He
constructs a model to demonstrate that this in-
centive will be positive: the PTA will create
a "domino" effect, with outsiders wanting to
become insiders. The argument is basically
driven by the fact that the PTA implies a loss
of cost-competitiveness by imperfectly com-
petitive nonmember firms whose profits in the
PTA markets decline because they must face
the tariffs that member countries' firms do not
have to pay. These firms then lobby for entry,
tilting the political equilibrium at the margin
toward entry demands in their countries. The
countries closest to the margin will then enter
the bloc, assuming that the members have
open entry, thus enlarging the market and
thereby increasing the cost of nonmembership
and pulling in countries at the next margin.
Given the assumptions, including continuity,
this domino model can take the PTA time-path
to $U^*$ in Figure 1.

Question II. — The rest of the theoreti-
cal contributions address Question II (i.e.,
whether the PTA possibility or time-path helps or harms the MTN time-path. Here, the two major analyses to date addressed directly and quite aptly to this question, by Krishna (1995) and Philip Levy (1994), reach the “malign-impact” conclusion.

Krishna models the political process in the fashion of the government acting as a “clearing house” in response to implicit lobbying by firms. His oligopolistic-competition model shows that the PTA reduces the incentive of the two member countries to liberalize tariffs reciprocally with the nonmember world and that, with sufficient trade diversion, this incentive could be so reduced as to make impossible an initially feasible multilateral trade liberalization.

Levy, who models the political process instead using a median-voter model, works with scale economies and product variety to demonstrate that bilateral PTA’s can undermine political support for multilateral free trade. At the same time, a benign impact is impossible in this model: if a multilateral free-trade proposal is not feasible under autarky, the same multilateral proposal cannot be rendered feasible under any bilateral FTA.

The Krishna and Levy models therefore throw light on the incentive-structure questions at hand when the agents are the lobbying groups and interests that are affected by different policy options. However, there are contributions, including that by Kyle Bagwell and Robert Staiger (1993), that take the conventional view of governments as agents maximizing social welfare but then ask whether the effect of allowing PTA’s to form affects outcomes concerning trade policy relating to the multilateral system.

In conclusion, among the as-yet-unformalized arguments that drive the simultaneous use of PTAs by the United States alongside multilateralism, is that produced by Bhagwati (1994) who posits a “selfish hegemon” that, while wedded to multilateral outcomes, uses the PTA approach as a sequential bargaining strategy to divide the nonhegemonic governments and improve the final multilateral outcome in favor of its own demands. Koichi Hamada (1995) has analyzed theoretically the differential (static) implications of the classic Charles Kindleberger (1981) “altruistic hegemon” and the Bhagwati (1994) “selfish hegemon” theses.

REFERENCES


