

# CAN REGIONAL BLOCS BE A STEPPING STONE TO GLOBAL FREE TRADE? A POLITICAL ECONOMY ANALYSIS

SHANG-JIN WEI and JEFFREY A. FRANKEL

## ABSTRACT

With a new wave of regional blocs, there is a heightened worry that they may impede the process of global free trade. This paper demonstrates, contrary to the pessimistic views, regional blocs may work as a stepping stone to multilateral liberalization. In our model, global free trade is not politically feasible initially, because too many people think that they will lose from the liberalization. Regional blocs as an intermediate step could divide the original opposition force so that a sequence of liberalization now becomes feasible.

## I. MOTIVATION

There is a brisk resurgence of political interest in regional trade blocs, as demonstrated by the recent signing of the North American Free Trade Agreement, the EC 1992 program, and the talk of an emerging East Asia bloc centered around Japan. Parallel to these political development, there is a proliferation of writings on the subject. [See, for example, Krugman (1991a and b), Fieleke (1992), Frankel (1992), Frankel and Wei

---

*Direct all correspondence to:* Shang-Jin Wei, Kennedy School of Government, Harvard University, 79 JFK Street, Cambridge, MA 02138. Fax: 617/496-5747. E-mail: shang-jin\_wei@harvard.edu; and Jeffrey A. Frankel, Department of Economics, Evans Hall, University of California, Berkeley, CA 94720 and NBER.

---

**International Review of Economics and Finance**, 5(4): 339-347  
ISSN: 1059-0560

Copyright © 1996 by JAI Press Inc.  
All rights of reproduction in any form reserved.

(1993 and 1995), Lawrence (1992), Lloyd (1992) and many more papers cited by these authors.]

The intense attention is partly due to the worry that regional blocs may impede the delicate GATT process towards global free trade. There is an old literature that emphasizes the distinction between trade creation and trade diversion effects of regional free trade areas. Specifically, trade diversion occurs when members of a grouping reorient their trade away from low-cost non-member countries towards higher-cost member countries. Regional blocs may reduce world welfare if the trade diversion effect dominates. Recently, Krugman (1991) derived a model in which every regional bloc pursues an optimal tariff. He shows via simulation that three regional blocs may minimize world welfare. In a generalized version of Krugman's model that includes transportation costs, Frankel, Stern and Wei (1995, 1996) show that even after one takes into account the geographic pattern of trading blocs, the current degree of regionalization is likely to be welfare-reducing.

Other authors base their concerns on political economy grounds. Bhagwati (1992) argues that regional blocs may discourage countries involved to "exit" from multilateral negotiations both because bureaucrats may prefer talking with friends in neighboring countries and because businessmen may get better deals from regional deals.

On the other hand, Lawrence (1992) argues that the forces initiating the recent regional blocs are very different from those in the 1930s. In contrast to the "beggar thy neighbors" feature of the inter-war period blocs, the current blocs offer benefits to outsiders by stimulating growth and enhancing the role of market forces. The current regional blocs, in his words, are likely to be "building blocks" towards global free trade rather than "stumbling blocks."

Recently, Levy (1993) argues that, regional blocs neither hinder nor promote global free trade in a Heckscher-Ohlin framework, but undermine the political support for multilateral free trade in an increasing-returns-to-scale framework. The last sentence in the abstract of his paper reads, "bilateral free trade agreements can never increase political support for multilateral free trade."

The purpose of this paper is to demonstrate, contrary to the pessimistic views, regional blocs may work as a stepping stone to global free trade. In our simple model, global free trade is not politically feasible within a country, because too many people think they will lose from liberalization. The argument and the structure in Fernandez and Rodrik (1991) are used to establish this part of the story. Next, we argue that regional blocs as an intermediate step to global free trade could divide the original opposition force. Roughly speaking, regional blocs effectively re-configure alliances on the issue of trade liberalization. Those who may oppose an overall trade liberalization program find themselves divided on the issue of regional liberalization. Once regional blocs are established, a new majority can be formed to support further liberalization. On the other hand, regional blocs may also work as a trap so that countries after setting up a bloc are unable to overcome domestic political resistance to free trade. As it turns out, the basic logic of this argument is isomorphic to the discussion on speed of reforms (gradualist versus big bang approaches) in Wei (1993). The Fernandez and Rodrik (1991) argument is not necessary to prove that a sequence of regional blocs can work politically. But it is the simplest framework to establish that global trade is not initially feasible, which is the interesting case to focus on.

## II. A SIMPLE MODEL

Consider a two-period world. Countries A and B are two small open economies. The rest of the world is labelled as country C. There are three goods,  $x$ ,  $y$  and  $z$ . All can be produced by a CRTS technology with labor being the only input. Specifically, for country  $k$ , the technology to produce good  $j$  is

$$j^k = \frac{L_j^k}{\theta_j^k}$$

where  $k = A, B$  and  $C$ , and  $j = x, y$  and  $z$ .

To minimize notational complication while still preserving enough richness for our discussion, we will assume that the technology parameter  $\theta$  takes one of two values.

$$\begin{aligned} \theta_j^k &= \alpha \text{ if } (k, j) = (A, x), (B, y) \text{ or } (C, z) \\ &= \delta \text{ otherwise} \end{aligned}$$

where  $\alpha < \delta$  and the index  $(k, j)$  represents the value of unit labor requirement for good  $k$  in Country  $j$ .

The labor distribution in Countries A and B has the feature that no single sector has a majority (and the sum of any two sectors constitutes a majority). For example, the labor force can be evenly divided in the three sectors. On the other hand, in Country C (i.e., the aggregation of all the other countries in the world), workers in sector  $z$  constitute a majority. Hence, country C always wants a global free trade if it can get it. This assumption on country C allows us to focus our discussion on Countries A and B.

### A. Global Free Trade is Infeasible

With this configuration, each country has an unambiguous winner (e.g., sector  $x$  for A). Suppose, in countries A and B, the two less efficient sectors receive a tariff protection with the ad valorem rate  $r$ . Because of the symmetry between the two, we restrict our attention to one country, say A. Without leading to confusion, we omit the country superscript for all variables.

Assuming perfect competition in each sector, the constant returns to scale technology ties down the wage rates to the tariff-cum goods prices.

That is,

$$w_j = p_j / \theta_j$$

By appropriately choosing the values of  $\theta$ , we can let the wages be the same in the three sectors in the absence of any change in the status quo. From the viewpoint of Country A, global free trade means removal of tariffs on goods  $y$  and  $z$ . With the removal of the two tariffs,  $w_y$  and  $w_z$  fall. The crucial assumption of the model is that job relocation is costly. The cost is individual-specific. But individuals do not know their own switching costs

before the trade liberalization takes place. All they know is the probability distribution of the costs. We use  $c_i$  to denote the cost for individual  $i$  of switching from one sector to another.

We will also assume that individuals are risk-neutral. But this is in no way crucial for the results. Let the indirect utility function be  $V(P_y, P_z)w$ . We will use  $P^\circ$  and  $P''$  to denote goods prices under status quo and global free trade, respectively.  $w^\circ$  and  $w''$  are defined analogously.

Let us leave aside the feasibility issue for the moment and consider what would happen if global free trade is implemented. Consider a generic individual  $i$  in sector  $y$ . She can stay in sector  $y$ , or switch to a different one. Notice if she ever switches sectors, she will go to sector  $x$ , but never to  $z$ , since  $w_z$  is lower than  $w_x$ . Moreover, if she ever switches, she will do so at  $t = 1$  without delay. Therefore, her options are really only two: either staying in sector  $y$  for both periods, or incurring a cost, switching to  $x$  and staying there at  $t = 2$ .

She would take the second option if and only if her utility of doing so is greater than that under the first option. That is, she switches to sector  $x$  if

$$(1 + \beta)W_x'' - c_i > (1 + \beta)w_y''$$

or

$$c_i < c_y^* \equiv (1 + \beta)(w_x'' - w_y'')$$

where  $\beta$  is her subjective discount factor.

Similarly, an individual  $j$  in Sector  $z$  will switch to Sector  $x$  if and only if her switching cost  $c_j < c_z^*$ , with  $c_z^*$  analogously defined.

Now let us consider the feasibility question. Ex ante, people in sector  $y$  would vote against global free trade, if the expected utility after the trade liberalization is lower than the utility under the status quo. That is, the reform is not supported if

$$V(P_y'', P_z'') \left\{ F(c_y^*) \left[ w_x'' \int_{c_L}^{c_y^*} \frac{cf(c)}{F(c_y^*)} dc \right] + [1 - F(c_y^*)] w_y'' \right\} \\ + \beta V(P_y'', P_z'') \{ F(c_y^*) w_x'' + [1 - F(c_y^*)] w_y'' \} < (1 + \beta) V(P_y^\circ, P_z^\circ) w_y^\circ$$

where  $F(\cdot)$  is the (unconditional) cumulative distribution function for the sector-switching cost.

We now want to demonstrate that there exist cases in which global free trade would be supported by a majority ex post, but are blocked by another majority ex ante.

By the definition of  $c_y^*$ ,

$$w_y'' = w_x'' - \frac{c_y^*}{1 + \beta}$$

Hence,

$$P_y'' = a_y \left( w_x'' - \frac{c_y^*}{1 + \beta} \right) = P_y^\circ \left( 1 - \frac{c_y^*}{1 + \beta} \right)$$

Similarly,

$$P_z'' = a_z \left( w_x'' - \frac{c_z^*}{1 + \beta} \right) = P_z^\circ \left( 1 - \frac{c_z^*}{1 + \beta} \right)$$

If global free trade is implemented, a majority of people in Country A will approve it as long as the following inequality is satisfied

$$c_i < (1 + \beta) - (1 + \beta) \left( 1 - \frac{c_y^*}{1 + \beta} \right)^\delta \left( 1 - \frac{c_z^*}{1 + \beta} \right)^\tau$$

On the other hand, a majority will oppose global free trade ex ante if

$$(1 + \beta) \{ F(c_y^*) + [1 - F(c_y^*)] w_y'' \} - \int_{c_L}^{c_y^*} c f(c) dc < (1 + \beta) \left( 1 - \frac{c_y^*}{1 + \beta} \right)^\delta \left( 1 - \frac{c_z^*}{1 + \beta} \right)^\tau$$

We can show that both inequalities can be satisfied simultaneously. To provide a stark example, let us assume, following an example in Fernandez and Rodrik (1991), that  $c_i$  follows a uniform distribution on  $[0, c^u]$ . Hence, the density function  $f(c) = 1/c^u$ , and  $F(c^*) = c^*/c^u$ . There are many sets of parameter values such that both inequalities are satisfied simultaneously. One such example is  $\beta = 0.9$ ,  $\delta = \tau = 0.3$ ,  $a_y = a_z = c^u = 1$ , and  $P_y''/P_y^\circ = P_z''/P_z^\circ = 0.8$ .

Because country B is exactly symmetric to country A, the same logic applies to Country B. That is, any proposal of global free trade will not be supported by a majority there.

### B. Regional Bloc is Feasible

Consider a proposal to form a free trade area between A and B. For now, let us say that the government has no plan do any other trade liberalization. Ex post, as a result of tariff removal, the price of good y in country A (and that of good x in country B) will decline. Not surprisingly, people in sector x in country A unambiguously benefit from this and will support the regional bloc. Importantly, people in sector z also benefit from a lower price on good y. Hence, if they base their action on this period's utility, they will also support the move, which makes the number of supporters in Country A a majority.

### C. Global Free Trade Reconsidered

Once a free trade bloc with Country B is in place, we can reconsider the political feasibility of a proposal for global free trade. Those people that remain in sector y, although suffer a real income loss from the regional bloc, realize that further liberalization (global

free trade) will not cause another drop in their wage, but will lead to a drop in the price of good  $z$ . Therefore, people in sector  $y$  together with those in sector  $x$  will now collectively support a global free trade.

Note that this analysis is completely correct if voters are myopic so that, when voting on the regional bloc, they ignore the prospect of a future vote on global free trade. However, the behavior can be rational, if the voters have a high discount rate or there is substantial amount of uncertainty about the future so that the expected future loss would be sufficiently small relative to the current gain from the regional deal. The behavior can also be rational in an alternative setting. Assume, instead of having a forever-young population, we have successive generations in each country. Assume further that each period (appropriately defined) is dominated by a different generation, and there is little inter-generational altruism. Then, the referenda on the regional bloc and global free trade take place in different generations. Each will succeed politically exactly in the way as delineated above.

#### *D. Regional Blocs as a Divide-and-Conquer Device*

In our above story, a regional bloc works as a stepping stone towards global free trade under several scenarios including a high discount rate and independent generations. Does the result hold without these assumptions? In particular, if people in sector  $z$  realize that free trade with B will lead to free trade with C, or the tariff on  $z$  will eventually be removed, would they still support the regional trade arrangement?

We would like to argue that the result still holds in a two-period model. To do this, we need to assume that the government is able to set an agenda and commit to it. The agenda is simply a two-stage plan: (1) In period 1, the government will hold a referendum on forming a free trade bloc with Country B; and (2) in period 2, regardless of the outcome of the first referendum, the government will hold another referendum on forming a free trade bloc with Country C (the rest of the world).

Notice that when  $t = 2$  comes, it is the people in sector  $y$  together with those in  $x$  that push the country for further trade liberalization. Therefore, in order to block the regional trade arrangement, which by itself is in the interest of people in sector  $z$ , people in sector  $y$  have to promise and convince people in sector  $z$  that they will not agree to free trade with country C at  $t = 2$ . But such a promise is not time-consistent. That is, when  $t = 2$  comes, it is in the interest of people in sector  $y$  to vote for free trade with C. Given that free trade with C will likely be the outcome at  $t = 2$ , the best strategy for people in sector  $z$  at  $t = 1$  is to vote for free trade with Country B. In this way, they at least get the benefit of a lower price on good  $y$ . Hence, by using a regional bloc as an intermediate step, the government can pursue global free trade as an end result of a two-step process.

The logic of the above argument derives from the inability of one group of people to pre-commit their future actions to another group. Hence, using backward induction, we can show that the same argument holds in a multiple but finite-period world. The prospect of a collusion cannot be ruled out *ex ante* in an infinite-horizon model. However, the large number of people in each sector in the real world and the uncertainty about the future make collusion difficult.

### III. REGIONALISM AS A POSSIBLE TRAP

The discussion so far has centered on how regional trade blocs may change the dynamics of domestic political forces so as to render the eventual global free trade feasible. It is important to make clear that regionalism is not a panacea for political opposition to multi-lateral free trade. Indeed, it is just as easy to construct models such that regional trade blocs may develop into a protectionist trap, so that the countries involved may never be able to move forward towards global free trade.

The simplest way to make this point is by an example. Regional blocs can be a stumbling block if the technology structure in the three countries (or the values of  $\theta$ s) takes the form of following matrix:

	A	B	C
$x$	$b$	$c$	$a$
$y$	$c$	$b$	$a$
$z$	$a$	$a$	$b$

where we assume that  $a < b < c$ .

The labor distribution is

	A	B	C
$x$	3	3	200
$y$	3	3	200
$z$	3	3	500

Consider now a proposal to form a regional bloc between A and B. In Country A, people in sectors  $x$  and  $z$  will approve such a move. So there is a majority support in Country A. Similarly in Country B, a majority formed by people in sectors  $y$  and  $z$  will also approve such a proposal. So the regional bloc is established.

Once the bloc is formed, it does generate trade diversion (A imports  $y$  from B instead of C; and B imports  $x$  from A instead of C). Furthermore, in the regional bloc, people in sector  $x$  in country A and those in sector  $y$  in country B experience an increase in their power, and resist further trade talks with C.

Now, any proposal on free trade with C will be shot down, since people in  $x$  and  $y$  will be against it and they constitute a majority in both Countries A and B.

One may wonder why people in sector  $z$  in either country agree to form the regional bloc. Their reason is that there is no chance to get free trade with the rest of the world (Country C) anyway.

### IV. CONCLUDING REMARKS

Using a simple model, we suggest one possible mechanism through which regional trade blocs may serve as a stepping stone to global free trade. In our model, global free trade is not initially politically feasible, because too many people perceive that they will lose from

multilateral liberalization. Some of them do so mistakenly, but nonetheless rationally. A two-step process (regional blocs preceding multilateral free trade) effectively re-configure alliances on the issue of trade liberalization. Those who may oppose an overall trade liberalization program find themselves divided on the issue of a regional bloc. The government, by exploring the difficulty for various opposition forces to coordinate among themselves, can win enough political support to establish a regional bloc. Once a regional bloc is in place, a new majority may be formed to push for further liberalization.

Unfortunately, regionalism is not a fool-proof strategy to circumvent political opposition to global free trade. There are clearly scenarios in which countries may be trapped in regional blocs and have no will to move forward towards global liberalization.

Frankel and Wei (1995) provided a survey of political economy arguments that go opposite directions. It is desirable to know whether the stepping stone effect of regional blocs dominates the stumbling block effect. Using a gravity model to examine bilateral trade data during 1970-1992, Wei and Frankel (1995) and Frankel and Wei (1995) find that there are indeed many regional blocs that have undertaken across-the-board liberalization measures at the same time as they pursue regional arrangements. This suggests that the stepping stone effect could dominate, although more work are needed to help us understand when and why.

## REFERENCES

- Bhagwati, J. (1992). Regionalism and multilateralism: An Overview. Paper Presented at a World Bank Conference on April 2-3.
- Fieleke, N. (1992). One trading world or many: The issue of regional trading blocs. *New England Economic Review*, Federal Reserve Bank of Boston, May/June.
- Fernandez, R., & Rodrik, R. (1991). Resistance to reform: Status quo bias in the presence of individual-specific uncertainty. *American Economic Review*, 85(5), December.
- Frankel, J. (1993). Is Japan creating a yen bloc in East Asia and the Pacific? In J. Frankel & M. Kahler (Eds.), *Regionalism and rivalry: Japan and the U.S. in Pacific Asia*. Chicago: University of Chicago Press.
- Frankel, J., & Wei, S.-J. (1993). Trade blocs and currency blocs. *NBER Working Paper* 4335, April.
- Frankel, J., & Wei, S.-J. (1995, October 20-21). Regionalization of world trade and currencies: Economics and politics. Paper presented for the NBER Conference on *The Regionalization of the World Economy*, Woodstock VT.
- Frankel, J., Stein, E., & Wei, S.-J. (1995, June). Trading blocs and the Americas: The natural, the unnatural, and the super-natural. *Journal of Development Economics*, 47, 61-95.
- Frankel, J., Stein, E., & Wei, S.-J. (1996, May). Regional trading arrangements: Natural or supernatural? *American Economic Review*.
- Levy, P. I. (1993). *A political-economic analysis of free trade agreements*. Stanford University.
- Lloyd, P. J. (1992, Spring). Regionalisation and world trade, *OECD Economic Studies*, No. 18.



- Lawrence, R. Z. (1992). Emerging regional arrangements: Building blocks or stumbling blocks? In R. O'Brien (Ed.), *Finance and the international economy 5: The Amex bank review prize essays*. New York: Oxford University Press.
- Wei, S.-J. (1993). *Gradualism versus big bang: Speed and sustainability of reforms*. Kennedy School of Government, Harvard University.
- Wei, S.-J., & Frankel, J. (1995, September). Open regionalism in a world of continental trade blocs. *NBER Working Paper #5272*, Revised November, 1995.