

IN SUMMARY

In a highly integrated economic area which surpasses in size the jurisdiction of governments, each group of policy-makers is subject to such strong interactions with the surrounding area that the constraints actions become very severe. Indeed, in the hypothetically limiting case, these constraints determine entirely the course of action each jurisdiction must take. The region—or the nation—in a highly integrated economy becomes analogous to the perfect competitor—or at best the oligopolist—in a market economy. The range of choice it has, consistent with economic survival, is very small; for the most part it simply adapts its behavior to stimuli from outside. Awareness of the high interactions will eventually inhibit action.

A. C. Pigou and John Maynard Keynes pointed out long ago that the sum of individual decisions by consumers and producers may not always be optimal for society as a whole (and hence for its members), even though its members may be acting individually on entirely rational grounds.³⁸ Some kind of collective action is therefore required to produce an optimal outcome.

The same can be true among nations, or among regions within a nation, if the interactions among their decisions are sufficiently strong. One jurisdiction gropes for new instruments in an attempt to improve its position. If it succeeds, others follow and there is a competition in policies which defeats everyone's objectives and in fact can even lead all participants *away* from their national or local objectives, like the members of a crowd rising to their tip-toes to see a parade better but in the end merely standing uncomfortably on their tip-toes.³⁹

³⁸ A. PIGOU, *THE ECONOMICS OF WELFARE* (1932). This was also the central underlying message of J. KEYNES' *GENERAL THEORY OF EMPLOYMENT, INTEREST, AND MONEY*, (1936).

³⁹ A recent illustration of this, drawn from the United States, is provided by the growing use by States and municipalities of their privilege to float tax-exempt securities for the purpose of raising funds for new businesses locating there. This practice was used by only three states as recently as 1956 with such issues totalling less than \$2 million; but by 1966 these issues had been made in 28 states and exceeded \$500 million. As the process spreads, the actual effect on the location of industry diminishes, and the net effect will simply be to erode the Federal corporate tax base and to raise interest charges on all tax-free state and municipal securities, thus in the end hurting the protagonists in the process.

A simple game offers a suggestive if inexact analogy to the consequences of policy competition. Consider a "game" in which each of two persons must name an even number between two and ten. If they name the same number, each player receives half of that number. If they name different numbers, the player naming the lower number wins the number he named; the other player wins nothing. The "payoff matrix" for either player looks like this:

Number chosen by 1 player	Number chosen by the other player				
	2	4	6	8	10
2.....	1	2	2	2	2
4.....	0	2	4	4	4
6.....	0	0	3	6	6
8.....	0	0	0	4	8
10.....	0	0	0	0	5

Maximum joint gains are reached if both players choose ten; in that case each of them wins five. But for each player the choice of "eight" dominates the choice of "ten" in the sense that the payoff is sometimes higher and is never lower, no matter what the other player chooses. If the choice of "ten" is ruled out by both players on these grounds, the choice of "six" then dominates the choice of "eight" by reasoning similar to that above; and so on, until both players end up choosing "two" as the only safe strategy yielding some sure payoff.

The mutual gains from cooperation are obvious in this case, and should be obvious to both players. The temptation to cheat will always be present, but if the game is played again and again the long-run loss from deviating from a jointly agreed choice of "ten" should induce both players to stick to their agreement. If, however, this kind of game is extended to include many players—each player wins if he names the lowest number, alone or in common with others, but nothing if someone else names a lower number—any one player may feel he can violate the agreed conventions to his own benefit without inducing retaliatory action by all the others. Since *all* the participants may reason in this way, all may be made worse off than necessary.

International trade and financial policies have something of this character: if all the other players adhere to the rules which benefit all, any one of them may gain by deviating from them, and therein lies the risk of unraveling. The rules will be workable only if all play by them.