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CHAPTER 6	_

## The Implications of East-West Economic Cooperation for Market Economies

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This chapter examines the implications of expanded East-West trade for market economies. In addressing this topic, the paper examines some common assumptions about the nature of modern economies, the causes of the problems of the socialist economies, and the nature of likely solutions to these problems. These common assumptions are quite representative of the conventional wisdom that guides, and has guided, policies in East Europe. By reflecting on the implications of the assumptions and by considering some of the most basic differences between socialist and market economies, one can begin to see clearly some of the future possibilities for East-West trade.

To understand the nature of future possibilities, one must begin by seeking an explanation for the present trade behavior of the socialist countries. Only by understanding the central determinants of socialist economic behavior can one hope to predict the

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effect of changing international economic relations on trade. Only if one comprehends the nature of the changes that socialist countries must implement to improve trade performance can one understand whether the present reforms and improved East-West economic relations will have any strong effect on the western economies.

# ASSUMPTIONS BEHIND POLICY CHOICES IN SOCIALIST ECONOMIES

Here, I reflect on some common underlying assumptions that have guided policymaking in socialist countries for much of the last forty years.

## The Primacy of Heavy Industry

A key facet of socialist economies rests on the implicit assumption that economic progress can only be attained by concentrating a country's resources on the development of heavy industry and the investment sector, with the consequent neglect of light industry, consumption goods, and services. This emphasis also is found in present Soviet policy, where the initial phases of the present reform seem to be concentrated on devoting even more resources than previously to the machine-building sector (Aganbegyan 1987).

Such an emphasis consigns much more than half of present-day economic activity to malign neglect. It represents a Dickensian view of the nature of modern industry that is far removed from fact. A cursory examination of the basic statistics of economic life in the developed economies would show that food processing is as important as chemicals, restaurants and hotels are as important as metallurgy, and retail and wholesale distribution is much more important that machinery. In the United Kingdom today, exports of services are as important as exports of all types of machinery (United Kingdom 1989). If policymakers ignore sectors such as

<sup>1.</sup> The information given here reflects statistics on value added in the 1980s obtained from United Nations (1986).

services and light industry because these activities do not conform to a specific vision of economic progress, then the economy loses the chance to develop vast areas of activity that seem to be central elements of economic success in the most advanced countries.

#### The Obsession with Science

In current Soviet writings, one frequently encounters the notion that the application of scientific knowledge at its highest levels is essential to economic success.<sup>2</sup> One almost feels that "science and technology" are one word, with the two concepts conceptually indistinguishable.

Nobody would dispute that the use of scientific and technological knowledge is an important ingredient in economic success. However, one feels on reading the papers of many East European economists, and on examining the statements of top policymakers in the socialist countries, that there is no serious thought given to the notion that the economy's use of science must be commensurate with the needs and abilities of the country in question. Nor is serious thought given to the notion that new ideas do not always emerge from the scientific-technological elite. Put simply, in most economies, a large proportion of economic progress does not come from the application of the latest scientific advances. New "technologies" are often far removed from hard science—for example, the organization of "fast-food" restaurants and the "Toyota" production method are both revolutionary technologies unconnected to hard science.

Apart from the possible squandering of resources, the obsession with science has the effect of limiting the scope of new ideas that can be considered for implementation in the economy. This emphasis on science slights the importance of product design, pro-

<sup>2.</sup> See, for example, Aganbegyan (1987) and Logimov (1987).

<sup>3.</sup> On the Toyota production system, see Abegglen and Stark (1985). Also known as the just-in-time method (a term that carries too narrow a meaning), the application of the Toyota production system is presently revolutionizing world automobile production. Interested readers should consult the papers of MIT's International Motor Vehicle Program.

duct variety, organizational changes, and marketing innovations, which rarely emanate from the scientific community.

This emphasis on science is misplaced for at least three reasons:

- 1. Even in the most developed economies, the application of science does not seem to provide the most powerful explanation of economic success. Dennis Mueller has been examining the most consistently profitable large firms and their industries in the United States in the postwar years. Of the 1,000 largest firms, the three most profitable were producers of cosmetics, domestic appliances, and apparel. The three most profitable industries produced glass products, hats, and shoes (Mueller 1986, 34-35, 43). In his results, there seems to be no tendency for the most R&D-intensive industries to be the most successful. Moreover, in terms of sheer size in the economy, there is no reason to emphasize the scientific sectors: U.S. value added in electrical and electronic goods does not exceed that in food and tobacco; U.S. value added in drugs and medicines is less than that in beverages.
- 2. The former point is only amplified by recognition of the fact that the socialist countries of East Europe are not at a stage of development where one would expect them to have a comparative advantage in the most scientific sectors. The middle-income countries do not make their success in such sectors: the Spanish value added in electrical and electronics is only half that in food and tobacco, and the Spanish value added in drugs and medicines is only half that in beverages; for a country such as Greece, the corresponding ratios are one-third.<sup>4</sup>
- 3. As is acknowledged by Soviet economists (Aganbegyan 1987), any supposed failure of the socialist countries is not to be found in the amount of resources that is presently allocated to science. The socialist countries already devote a very large share of their resources to science and to the process of technological change in the industries in which science is most important. In some of these industries, there have been some remarkable successes. More emphasis on science is not needed. What is needed is more reflection on why the past devotion to science has been
- 4. For verification of these points, see United Nations (1987).

successful in some sectors and not others. Subsequent sections of this paper provide some thoughts on this point.

## Focus on Cooperation

The third implicit assumption is the notion that all cross-national organization can take place effectively through cooperation.<sup>5</sup> This view overlooks what might perhaps be the most significant change in the world economy in the postwar years—the rise of the multinational corporations. The increasing significance of these entities in the world economy cannot be overemphasized, as Table 6-1 attests.

Theoretical reasoning and empirical evidence tell us that cooperation between sovereign entities cannot replace the activities of multinational corporations in all economic sectors. The essence of these corporations is that they replace market exchange by hierarchy. In some spheres of activity, where outcomes are very hard to predict and where the establishment of a relationship makes each party vulnerable to the other's actions, arm's-length exchanges might not be efficient, or even feasible. That multinationals play a particularly important role in some sectors can be seen in Table 6-2.

Moreover, it seems clear that cooperation is no substitute for hierarchy. I have made some rough calculations of the importance of foreign capital in Yugoslavia, which bars foreign control, and some market economies, which allow foreign majority-owned affiliates. These figures show that foreign-owned capital is eight times more important in Portugal than Yugoslavia, twelve times in Greece, thirty-five times in Austria, and 100 times in the Netherlands. Furthermore, this nonequivalence of cooperation and hierarchy applies particularly to the sectors in which foreign direct investment occurs, as the figures in Table 6-3 attest. As is evident from Table 6-3, the Yugoslav share of foreign direct

<sup>5.</sup> Between the date of the first presentation of this paper in September 1988 and its finalization in July 1989, laws have been passed in East Europe and the Soviet Union that acknowledge the need for foreign majority ownership. At the time of writing, the practical effect of these laws is still unknown.

<sup>6.</sup> The relevant data are from OECD (1986).

investment seems to be low in food processing, machinery, and electrical sectors. The explanation for the situation in food processing can perhaps be found in similar types of emphases in policymaking to those discussed above. That is certainly not the case for the high-tech, heavy-industrial machinery, and electrical sectors. The explanation for these sectors is presented in a later section of this paper.

#### Focus on Resource Allocation

The last emphasis results from a sin of omission rather than commission. Nowhere in the ideas of Soviet policymakers is thought given to one of the most important dynamic forces in modern economies—the continuing creation of new institutions. There seems to be an implicit assumption that radical change can occur simply by radically reallocating resources among existing institutions. What this approach ignores is the fact that much dynamism comes from new firms—the Sonys and the Apples—and from firms that change their sphere of activity—the Hondas and the Xeroxes. A policy that focuses on the planned reallocation of resources will not avail itself of this form of dynamism.

# DETERMINANTS OF COMPARATIVE ADVANTAGES IN SOCIALIST ECONOMIES

Implicit in the comments made here is a specific view of the way in which the structure of socialist systems determines their trade behavior (and indeed their overall economic performance). That view has been laid out—and tested against trade patterns—in a recent book by this writer (Murrell 1989). I would like to adumbrate some of the ideas of that book, because those ideas, in combination with the emphases identified above, can go a long way to explain past socialist trade behavior and to identify the dilemmas that the socialist economies presently face.

The essence of the views to which I subscribe is that technological progress is the central ingredient of economic

Table 6-1. Shares of the Majority-Owned Affiliates of Multinational Corporations in the Exports of Some Industrializing Countries<sup>a</sup>

Country	Date	Share (%)
Belgium	1975	45
Brazil	Late 1970s	40
France	1975	<b>2</b> 5
Singapore	Late 1970s	90
South Korea	Late 1970s	<b>3</b> 0
Spain	1975	51
Taiwan	1976	<b>3</b> 0

a. The figures for European countries cover manufacturing exports only.

Sources: The data for non-European countries are from World Bank (1987) and Lee and Liang (1982). The data for European countries are from Dunning and Cantwell (1987).

Table 6-2. Shares of the Majority-Owned Affiliates of Japanese and U.S. Multinational Corporations in the Exports of Specific Sectors of Industrializing Countries

Sector	Share of Multinationals in Exports (%)
Basic Metals	7.0
Chemicals	19.1
Food	3.6
Electrical and Electronic Goods	47.0
Nonelectrical Machinery	31.3
Transportation	19.3

Source: Blomstrom, Kravis, and Lipscy (1988).

success. I must emphasize that by the term "technological progress" I mean a very broad category of changes—organizational, marketing, new goods, and new designs, as well as new processes. (I would like to contrast this broad notion of technological change with the one that leads to the phrase "scientific and technological advances.") Compared to the implementation of such changes, all other factors impinging on economic performance pale into insignificance. In particular, this view downplays the importance of efficiency in the static allocation of resources, which is the centerpiece of neoclassical economics, of which the market socialist model is an integral part.

To think about the elements of economic systems that affect the ability to implement technological change, it is particularly useful, especially in the context of foreign trade, to distinguish three types of goods. The names of the goods are taken from the economic theories that best describe the factors that explain why specific countries specialize in the production of the goods.<sup>7</sup>

Ricardian goods are ones in which natural-resource content is very high. To a rough approximation, the production and export of these goods is determined by the beneficence of nature. Obvious examples are bananas, crude oil, and wine.

The characteristics of neoclassical sectors are to be understood largely as relative ones in contrast to the properties of goods in the third category. Neoclassical sectors have standard well-known technologies that are relatively easily transferable. In such sectors, the production of radically new goods is not an important phenomenon. Moreover, quality, to the extent it varies, can be relatively easily determined; sales and service by the manufacturer are not crucial to the buyer. Technological advances in neoclassical sectors might be important, but the advances build upon a large stock of existing knowledge and are most usually in the form of new processes, whose economic effects can be estimated with a tolerable degree of accuracy. If that is the case, the transfer of new technology can be accomplished at arm's length through licenses, purchases of plant, or cooperative agreements. Neoclassical sectors

<sup>7.</sup> The idea for this categorization came from Hufbauer and Chilas (1974). The differences between their classification and mine mainly center on the economic theories used to describe the third categories of goods. Hufbauer and Chilas use product-cycle theories and I use Schumpeterian notions.

Table 6-3. Sectoral Shares of Foreign Direct Investment

		Percentage Share	5
Sector	Yugoslavia	Turkey	All LDCs
Chemicals	24.7	21.5	24.4
Electrical, Electronics	2.3	8.8	13.1
Food	5.5	16.3	11.7
Machinery	4.9	14.0	14.7
Metals	29.2	8.8	5.6
Transportation	23.2	15.8	8.4
Wood/Paper	4.4	2.4	6.5

a. U.S. multinationals only.

Sources: OECD (1982, 1983); U.S. Department of Commerce (1981).

are usually the more traditional sectors in which large firms dominate. Obvious examples are steel, basic chemicals, shipbuilding, and even automobiles. In summary, the determinants of success in neoclassical sectors are well known and largely understood. Hence, the model of rational decisionmaking in the presence of known constraints can be applied with a tolerable degree of accuracy.

Schumpeterian sectors are ones in which the process of change is better characterized by an evolutionary model rather than by the neoclassical paradigm of maximizing rational agents. A variety of factors can make a sector classifiable as Schumpeterian, and to some extent these factors can vary across sectors independently of each other. In Schumpeterian sectors, the technological and organizational characteristics of successful firms are less well understood, perhaps because the sector is new or going through some radical restructuring. New products are very important, and these might be significantly different from existing ones, thus making their

value difficult to estimate. For these reasons, technology is difficult to transfer at arm's length, because prospective buyers cannot estimate the economic value of the technology. Reputation for quality and after-sales service might be important ingredients in selling goods, and this reputation cannot be easily transferred to other organizations.

The ingredients of an economic system that lead to an economy having successful Schumpeterian sectors are very different from those that promote neoclassical sectors. In Schumpeterian sectors, uncertainty about the character of successful decisions and the radical nature of change mean that an economic system must be open to ideas from outside any specific sector. This is especially the case in view of the fact that existing institutions are often resistant and blind to the new. Entry of new firms and existing firms from outside the sector is essential to economic success in Schumpeterian sectors.

When knowledge of the ingredients of success is limited, an economic system must choose the most successful decisionmaking units through an evolutionary process. Exit and entry will be fundamental elements of this process. Moreover, because the arm'slength transfer of the ideas promoting success is difficult, the system must be open to rapid growth of successful organizations. The success of the organization itself must determine the speed of its growth, because previous success is the most important guide to the fitness of its organizational structure, choice of technology, or type of product. In the Schumpeterian sectors, the system must allow organizations themselves to determine the speed with which they conquer new territory, or indeed die out. In the modern open international economy, both of these elements of Schumpeterian success—entry and exit and spread of new ideas by the expansion of existing organizations—lead to one very important conclusion: receptiveness to multinational corporations is absolutely essential to economic progress. Obvious examples of Schumpeterian sectors are machinery and consumer electronics, but specialized sectors of many traditional industries could also be examples—apparel when style is important, or simple manufactured products when new marketing techniques or methods of quality control constitute the technological innovation.

#### DETERMINANTS OF EAST-WEST TRADE PATTERNS

In Table 6-4, I present very rudimentary information on the most important sectors of manufacturing industry. Two sets of characteristics are noted in the table. First, I give my judgment on whether a sector is best classified as Ricardian (R), neoclassical (N), or Schumpeterian (S). This judgment is based on a variety of information—whether technological change in the sectors is process- or product-oriented, the degree of product differentiation, whether entry of new firms is significant in the industry, and the extent to which intra-multinational corporation trade is significant in the sector. The last two items of information are summarized separately in columns (2) and (3), because they are so pertinent in any discussion of the systemic features of the socialist economies. Of course, the quality of information in the table is very crude and must be viewed from that perspective. The table serves solely to present the implications of the above discussion in the simplest way.

The second set of factors noted in Table 6-4 is the emphases that, as I have commented above, seem to be implicit in the economic policy of the socialist countries during the last two decades or longer. Again, the information presented in Table 6-4 is very simple, summarizing essentially the popular image of the sector—whether it produces consumer goods, whether it has that Dickensian quality of being "heavy," and whether it has an image of being "high tech."

Despite the quality of information, the composite picture from Table 6-4 is striking. For the socialist countries, there is a very bad fit between the sectors that the policymakers want to emphasize and those for which the system is best suited. The Schumpeterian sectors are not ones in which socialist countries will have a comparative advantage because of systemic characteristics—the lack of entry and exit, the difficulty that successful organizations have in expanding their activities into different sectors and different regions, and the nonacceptance of multinational corporations. Moreover, many of the neoclassical sectors—food processing, textiles, apparel—are neglected because the image (and I stress the word image, in contrast to substance) of the sectors is not one that catches the eye of policymakers. Apart from Ricardo goods, whose

production is at least partially determined by the presence of specific endowments, the sectors in which the socialist countries find themselves able and willing to concentrate their efforts are basic chemicals, processing of fuels, and basic metals. Thus, one has a prediction of the sectors in which the socialist countries will specialize. As all will be aware, this prediction fits the facts on East-West trade extremely well.

# THE EFFECTS ON THE MARKET ECONOMIES OF LIMITED REFORMS OF THE SOCIALIST ECONOMIES

I return to the basic question that was assigned to me by the conference organizers: What will be the effects on the market economies of attempts to expand East-West trade? The answer to this question must necessarily come in two parts, depending on whether or not one assumes a radical change in policy on the part of the East European countries. First, let us assume that the reforms take the economies no further than, say, the Hungarian system over the last twenty years. Then, I would argue that the attempts to expand East-West trade have few implications for the market economies, because these attempts would fail. Why? At least three reasons are clear:

- 1. If the above analysis is correct, market socialist reforms do not address the central problems of the socialist economies. Schumpeterian theory predicts that the dynamism of important sectors of the economy arises from the creation of new institutions and the selection process that the market provides. With their emphasis on the incentives of managers, price reforms, and decentralization of decisions within the existing institutions, market socialist reforms do not change by one iota the behavior of the socialist economies within the Schumpeterian sectors.
- 2. At present, there are no serious attempts in the socialist countries to provide the type of environment that is required by multinational corporations—an intervention-free atmosphere in which control is in the hands of the parent company. The present tortuous negotiations and the long delays in setting up

Table 6-4. Predicting the Sectoral Concentration of East-West Trade

ić i	Ye Ye
(3) MNCs Are Not Important	(4) Heavy Inw Industry Inu

Z-OECK A "No" means that a sector has characteristics that would make one predict that the socialist countries do not have a comparative advantage in the sector. The information is intended to convey a five-point scale—Yea, Yes/No, No?, No—indicating the proportions of sub-sectors within

the major sectors that have the indicated property.

Column (2) is based on information on the degree of entry in the sectors in the United States.

Column (3) is based on information on the importance of intra-MNC trade in the sector.

Column (6) is based on information on R&D/Sales and Patents/Sales.

Column (7) lists the average trade percentages within the sectors for the United Kingdom, Belgium, Ireland, and Greece.

For the information used for columns (2), (3), and (7), see Murrell (1989, chap. 4).

- new joint ventures are not simply the results of bureaucratic inertia. They are quite predictable if one uses current theories of internal organization. In the sectors in which the multinationals are common, it is so difficult to judge the value of what these companies offer that it is impossible to reach any satisfactory cooperative agreement. That is exactly why cross-border hierarchical organization is needed and why cooperation is no substitute.
- 3. The sectors in which the comparative advantage of socialist economies lies are exactly the ones in which the market economies have been, and will be, most protectionist. Neoclassical sectors have mature technologies, and they are therefore more likely to have had time to develop the strong coalition of interest groups that lobbies for protection. These sectors are the ones whose goods are homogeneous. Hence, the parties threatened by imports are readily identifiable. The neoclassical sectors are also the ones that are in relative decline in the advanced economies. Therefore, job security is an important issue.

For all these reasons, any expansion of East-West trade at present is likely to meet with increased protectionist sentiment simply because the socialist economies specialize in those sectors in which protectionist sentiment is most rampant. The most extreme conclusion that could be derived from the above is that the attempted expansion of East-West trade will have few implications for the market economies. Even if market socialist reforms were carried out, and even if the socialist countries were given the same general trading status as analogous market economies, East-West trade would not expand dramatically.

### PREREQUISITES FOR FUNDAMENTAL SHIFTS IN EAST-WEST TRADE

If the socialist economies are to increase their participation in the international economy, then fundamental changes must occur. Let us list those changes, beginning with the most palatable:

- 1. The emphasis on sectors that seem "high tech" or investmentoriented must be diminished. There is no reason, apart from
  image, why there cannot be an expansion in trade of the
  products of light industry or of the consumer-goods sector. I
  would presume that this expansion can occur without a large
  change in organizational structure. However, I do have reservations about the extent to which policymakers are willing to
  sacrifice their interest in high-visibility projects. (Witness the
  Concord in the U.K. and France and the high-capital intensity
  of the projects undertaken in the poorer Yugoslav regions.)
- 2. The socialist countries must take a more pragmatic attitude toward the operations of the multinational corporations. The figures presented above show just what a force these corporations are in the affairs of modern market economies. Those figures also show that the multinationals are even more important in the very sectors that policymakers in the socialist countries want to emphasize—electronics and engineering. The biggest question mark over the implementation of such a policy is whether political leaders can accept the perceived loss of sovereignty that is involved in attracting the multinationals. (Is any East European leader willing, as were the socialist leaders of France and Spain, to fawn over the representatives of the Disney company to attract Disney World to their country?)
- 3. Although I regard this as unlikely, the socialist economies must accept the fact that economic success cannot be secured solely by allocating resources within an existing set of institutions. The future is highly uncertain, and any economy needs to experiment with alternatives, needs new institutions constantly created that might just be better-fitted to a new environment, and needs a mechanism by which the better-fitted are able to grow very quickly and compete for the domain of the less productive entities. Whether a system with such properties can be constructed under socialism remains to be seen.

One of the papers presented at the Middlebury conference remarked that what is needed for the socialist economies is "planned expansion of cooperation." I disagree. Hierarchy, as the multinational corporations show, is a valuable form of economic organization and can be superior to cooperation in many cases. Which of the many types and forms of hierarchies are most appropriate for the various sectors of a modern economy cannot be judged a priori, but must be based on the observed merits of each. Thus, instead of planned expansion of cooperation, I would suggest "chaotic competition between hierarchies."

- Abegglen, James C., and George Stalk, Jr. 1985. Kaisha: The Japanese Corporation. New York: Basic Books.
- Aganbegyan, Abel. 1987. "Basic Directions in Perestroyka." Soviet Economy.
- Blomstrom, Magnus, Irving B. Kravis, and Robert E. Lipsey. 1988. "Multinational Firms and Manufactured Exports from Developing Countries." NBER Working Paper. Cambridge, MA.
- Dunning, John, and John Cantwell. 1987. IRM Directory of Statistics of International Investment and Production. Basingstoke, UK: Macmillan.
- Hufbauer, Gary C., and John Chilas. 1974. "Specialization Among Industrial Countries: Extent and Consequences." In *International Division of Labour Problems and Perspectives*. Ed. Herbert Giersch. Tubingen: Mohr.
- Lee, T. H., and Kuo-shu Liang. 1982. "Taiwan." Development Strategies in Semi-Industrial Economies. Baltimore: The Johns Hopkins University Press.
- Logimov, Vadim P. 1987. Remarks in the "Panel on Growth and Technology in *Perestroyka*." Soviet Economy.
- Mueller, Dennis C. 1986. Profits in the Long Run. Cambridge, MA: Cambridge University Press.
- Murrell, Peter. 1989. The Nature of Socialist Economies: Lessons from East European Foreign Trade. Princeton, NJ: Princeton Univ. Press.
- OECD. 1982. Foreign Investment in Yugoslavia. Paris: OECD.
- \_\_\_\_\_ 1983. Foreign Investment in Turkey. Paris: OECD.
- \_\_\_\_\_. 1986. Trends in International Direct Investment. Paris: OECD.
- United Kingdom, Central Statistical Office. 1989. Annual Abstract of Statistics. London: HMSO.
- United Nations. 1986. National Account Statistics, 1984. New York: United Nations.
- 1987. Industrial Statistics Yearbook, 1985. New York: United Nations.
- United States Department of Commerce. 1981. U.S. Direct Investment Abroad, 1977. Washington, DC: Government Printing Office.
- World Bank. 1987. World Development Report. Washington, DC: World Bank.