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The Impact of Transborder Data Flows on International Trade and Investment

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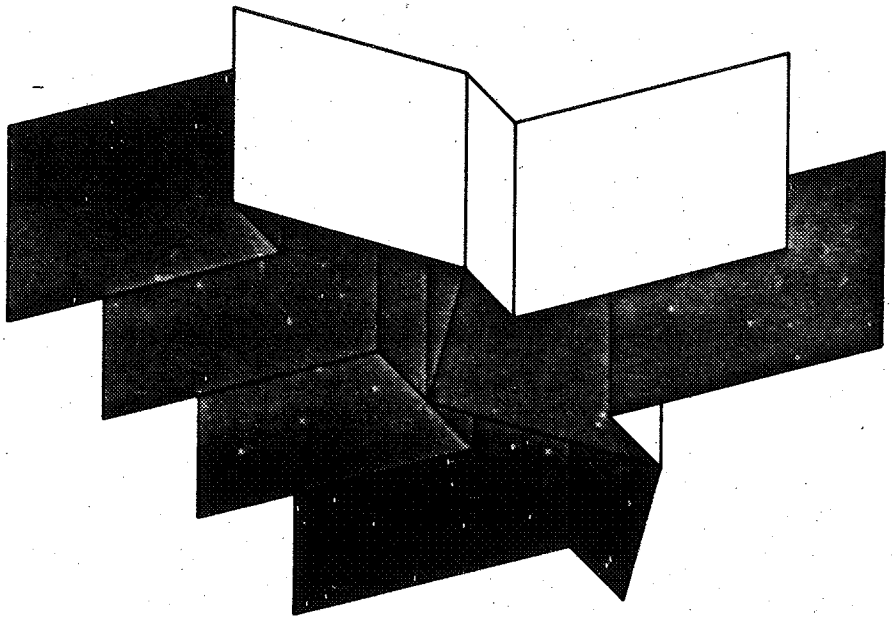

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PROCEEDINGS OF THE SECOND WORLD CONFERENCE ON TRANSBORDER DATA FLOW POLICIES

Rome, 26-29 June 1984

4.2.7 The impact of Transborder Data Flows on international trade and investment

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1. THE WORK OF UNCTC

As a body of the Economic and Social Council, the United Nations Commission on Transnational Corporations, supported by the Centre on Transnational Corporations, has been dealing with transborder data flow issues since 1981. The work of the Commission and the Centre has focused on research on the role of transborder data flows in transnational corporations and the implications this role has especially for developing countries. Broader issues of the subject matter are, however, also taken into account.[1]

Since the preparation of an initial overview study entitled "Transnational Corporations and Transborder Data Flows: A Technical Paper" in 1981 [2], the Centre has focused on three priority areas: country case studies on transborder data flows; access to the international data market; and transnational corporations and remote-sensing data. Reports have been prepared in each of these areas.[3]

Work in the area of country case studies is continuing. These studies are undertaken by the countries concerned under their own responsibility, although the Centre is ready to render assistance when need arises. On the basis of an examination of a country's telecommunications, informatics and telematics infrastructure, the country case studies aim at assessing empirically the role of transnational corporations in transborder data flows, the economic impact of these flows on countries, and policy responses to transborder data flows. They permit an overall assessment of the effect of the new data technologies on countries; they enable countries to take stock of their capacity, especially in terms of infrastructure, to utilize transborder data flows; they permit governments to present their policies in this area to other governments; and they provide decision-makers with the empirical material needed to formulate appropriate national and regional policies and to participate effectively in international discussions on the subject.

As of June 1984, case studies on Brazil and Poland have been completed.[4] Studies by the Federal Republic of Germany, Mexico and the United States are scheduled for completion before the end of this year. It is envisaged that, eventually, a general analysis will be prepared on the

basis of these case studies to review the experience of various countries, the policies adopted by them and the applicability of such policies to countries at different levels of development and in different circumstances. It is, therefore, important that countries with a wide range of developmental situations, policy approaches and experiences participate in these studies to avoid a bias in the overall analysis.

The Centre is also preparing industry studies on telecommunications, computer and computer equipment, and computer services, in addition, a technical paper on transnational corporations and the semiconductor industry has been completed.[5] Since these studies deal with parts of the infrastructure of transborder data flows and bear on commercial as well as corporate data flows, they provide background for the work on transborder data flows and shed light on specific aspects of these flows.

Finally, the Centre has initiated a study on the role of transnational corporations in international trade and foreign direct investment in data services. Since these transactions are increasing in importance, and growing policy attention is being given to them by, for instance, GATT and UNCTAD in the general framework of trade in services, research in this area is particularly timely and important. The study will deal with a number of the conceptual issues relating to these transactions, their nature, volume and determinants, the obstacles facing them, the policies most appropriate to them and, most importantly from the point of view of the Centre, the role of transnational corporations in these transactions and their impact on the development process in general and developing countries in particular.

2. IMPACT ON INTERNATIONAL ECONOMIC TRANSACTIONS

Mr. Chairman, I should like to highlight some of the issues that will be addressed in the study on trade and foreign direct investment in data services, because developments in this area highlight some of the fundamental changes transborder data flows are bringing about in international economic transactions.

As has been observed by other speakers at this Conference, developments in microelectronics have led to the emergence of data technologies - that is, technologies based on digital data equipment. These technologies form the nexus around which domestic economic and social activities, and international economic exchanges will be restructured in the years to come. While this process has begun in the developed market economies, and is led by transnational corporations from these countries, it is only a question of relatively little time until it will fully engulf the developing countries as well. Transborder data flows and their impact on trade and investment will be a major mechanism through which these changes are transmitted from developed to developing countries.

more specialized. Transborder data flows are a major element through which transnational corporations take advantage of new technological possibilities and ajust to the changing economic environment.

Finally, the application of data technologies is leading to the growth of new forms of international trade in that certain traditionally non-tradeable services become tradeable. This is an entirely new development, made possible only by the development of data technologies. Banking, for example, is an industry in which the use of data technology is beginning to permit a measure in trade in a disembodied service without, as in the past, requiring a direct presence in a foreign market for the generation of international transactions. Thus, for instance, automated teller machine networks in different countries can be linked up relatively easily with such networks in other countries and, in this manner, permit international electronic funds transfer on a routine basis. To a certain extent, this is already taking place. Similar developments may occur for other disembodied and traditionally non-tradable services, e.g., insurance, accounting, engineering and legal services. Some of these services are already routinely provided via corporate transnational computercommunication systems within transnational corporations. It may only be a question of time until the processes of differentiation, specialization and standardization of knowledge lead to the emergence of economies of scale which make it economically feasible to take these services out of their corporate framework and into the international market place. The result may be a whole range of services that can be traded internationally.

3. IMPACT ON DEVELOPMENT

It is obvious, therefore, that the impact of data technologies is not limited to one set of industries, data industries, only, but rather permeates all other economic activities. Through these linkages, the introduction of data technologies is changing the parameters for most industries and services and is bringing about fundamental changes.

Developing countries are at the threshold of being affected by these developments. They will find themselves to have to adapt to new parameters if they wish to remain competitive in some international markets. So far, however, developing countries play only a minor active role in this area and are likely to continue to do so unless greater attention is focused on this issue.

Although - and perhaps, precisely because - the exact implications of the changes brought about by transborder data flows cannot yet be determined with certainty, it is important to ensure that developing countries benefit from transborder data flows as much as possible and that any

The impact of data technologies on international economic transactions manifests itself in that trade and foreign direct investment in data industries have become an international economic activity in their own right; in that the infrastructure for trade in goods and services is being changed; in that the modalities for the operations of transnational corporations are being redefined; and in that new forms of international trade are being made possible.

With your permission, Mr. Chairman, I should like to say a few words about each of these impacts.

The emergence of data industries has, of course, given rise to trade and foreign direct investment in these industries. Both forms of internastional transactions, in which transnational corporations play a central role, appear to belong to the most dynamic segments of trade and foreign investment, with a few developed market economies being of particular importance as the originators of such transactions. Developing countries participate in international data-resource transactions mostly as consumers who import data resources either through trade or foreign direct investment, although a few countries have begun to export some data resources, e.g., software, data entry and some equipment.

Increasingly, in addition, transborder data flows via transnational computer-communication systems, are being used to facilitate, monitor and direct trade in goods and services. In a sense, therefore, these data flows are becoming the infrastructure of international trade. Some industries have become so information intensive that their international activities depend, to a large extent, on closed user group networks for data flows, e.g., SITA (for airlines) and SWIFT (for banking). Further developments can be expected in this area, and countries wishing to remain competitive internationally will have to monitor them closely.

Transborder data flows are, furthermore, becoming increasingly the infrastructure for the operations of transnational corporations. In fact, most transborder data flows take place via corporate transnational computer-communication systems, i.e., they are of an intrafirm nature. Perhaps 1,000 such systems are in existence today. These flows are used not only to speed up communications, but increasingly to improve management (e.g., financial management, inventory control) and to change the manner in which research and development as well as production are undertaken (e.g., computer-aided design and computeraided management). As a result, the nature of the activities of transnational corporations is changing: they are becoming more integrated and, perhaps, their affiliates are becoming

negative effects associated with them are being kept to a minimum. This assigns a key role to appropriate policies. Without such policies, the impact of data technologies on developing countries may be determined more by the uneven distribution of economic (and especially data) resources between developed and developing countries, and less by a rational utilization of all resources and possibilities that are available world-wide.

This Conference on Transborder Data Flow Policies can play a crucial role in the delineation of appropriate national, regional and international policies regarding transborder data flows. In fact, the Conference is being held at an important juncture: international discussions on transborder data flows - in the broader framework of trade in services - are entering a new stage because GATT, UNCTAD and UNESCO will most likely begin work in this area during autumn of this year. A careful analysis of the results of research on the importance and impact of transborder data flows and a thorough review of the experience of a wide range of countries with their policies in this area can only help in this process.

Thank you very much, Mr. Chairman.

NOTES

1. The various reports prepared by UNCTC for the Commission, as well as the decisions of the Commission regarding its work in this area, are contained in UNCTC, Transnational Corporations and Transborder data Flows: Background and Overview (Amsterdam, North-Holland Publishing Co., 1984).

2. United Nations publication, Sales No. E.82.II.A.4, summarized in "Transnational corporations and transborder data flows: an overview", E/C.10/87 and Corr. 1 of 6 July 1981.

3. See Transborder Data Flows: Access to the International On-line Database Market, United Nations publication, Sales No. E.83.II.A.1, and Transborder Data Flows: Transnational Corporations and Remote-sensing Data. A Technical Paper, United Nations publication, forthcoming.

4. Transborder Data Flows and Brazil: Brazilian Case Study, United Nations publication, Sales No. E.83.II.A.3, and Transborder Data Flows and Poland: Polish Case Study, United Nations publication, forthcoming.

5. See Transnational Corporations in the International Semiconductor Industry, United Nations publication, forthcoming.