

Technology, Producer Services, and the New International Division of Labor

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ABSTRACT

The main purpose of this paper is to analyze the role of producer services in the international division of labor. The impact of technology on production processes and producer services will be examined. The paper will present the multifaceted role of producer services on the decentralization of production which has significant economic consequences for industrialized and developing nations.

The principal driving force in the international economy is the development and use of technology which enables the continuing subdivision of production processes and has facilitated the global mobility of capital. Production sites for many products are chosen freely to maximize profits and compete for a market share through the most efficient use of capital and labor. The growing importance of information technology in producer services, allowing transnational corporations to determine new economic roles for many old industrial regions in the industrial nations, will be discussed. The long-term economic consequences to developing countries that have become new sites for manufacturing products destined mainly for export will be assessed.

Introduction

THE CONCEPT OF an international division of labor suggests the integration of multiple national societies and their territories into a broader embracing and differentiated system: a world system. Just as there are "no basic disagreements between the dependency school and world-system analysis" (Bornschiefer and Chase-Dunn, 1985: 4) the new international division of labor position is compatible with both dependency and world system theories because it affirms the importance of a society's links to other societies in affecting its stratification patterns and political economy.

The new international division of labor position maintains that there has been a basic shift in the structure of world economy in recent decades. Past scholarship has

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emphasized the importance of three factors which were significant in generating the shift to a new international division of labor: 1) an increase in population size of the peripheral countries which provided a vast labor force vulnerable to exploitation; 2) the disaggregation of production and assembly operations into simple tasks that can be readily mastered with little training; and 3) improved techniques of transport and communication which facilitate the global decentralization of production (Fröbel, Heinrichs and Kreye, 1980: 13).

Prior to the new international division of labor, peripheral countries' links to the core countries were characterized by the export of their natural resources (e.g., minerals and agricultural products) and dependency on imports for processed goods.¹ Also, most peripheral countries have been colonies of core countries, which typically constrained their trade relations to the countries that ruled them. The core countries, on the other hand, were characterized not only by industrial development but also by wide-ranging trade relations, both with other core countries and with their colonies. The world economy can no longer be characterized very accurately by reference to a core/periphery/semi-periphery structure because manufacturing and industrial production are now also carried out by newly industrialized countries (NICs) and/or in export processing zones (EPZs) for the world market and, in some cases, for domestic markets as well (Gary Gereffi, 1991: 241-242).

The origins of the new international division of labor can be traced to early industrialization in less developed countries (LDCs). Some of the peripheral countries expanded their industrial capacity to provide basic manufactures which were unavailable from the core countries during the global depression of the 1930s and World War II (Gereffi, 1989: 514). Following these crises, trade ties between LDCs and the core countries were reestablished. Domestic industrialization allowed some of the peripheral countries to make strides in their development, but because local industries in the semi-periphery remained behind the industries of the core countries in technology and market standards, they were limited to domestic markets. Economic enterprises through the public sector were often developed in these countries in part to mitigate reliance on foreign imports and to provide consumer goods for domestic markets.

The new international division of labor is characterized by the utilization of labor in the semi-peripheral and peripheral countries in the production of manufactured goods for the world market. Though Fröbel et al. (1980) emphasized the establishment of production facilities in LDCs by companies based in the core countries which had previously relied on local labor markets, there are actually many arrangements by which labor in LDCs is tapped. These include the establishment of export processing zones (EPZs) owned and managed by transnational corporations (TNCs), subcontracting arrangements between local firms and world market suppliers, and also independent exporters operating from some of the developing countries (Gereffi, 1990: 10-16).

An important force behind the emergence of the new international division of labor has been the producer services sector which has revolutionized the production, marketing, and distribution of goods and some services. Jones and Kierzkowski (1990) drew the connection between the prospects provided by new technologies for transnational producer services and the global redistribution of manufacturing activities.

The type of technological breakthrough and innovation that has characterized sectors such as telecommunications, transportation and financial services has had... pronounced effects in reducing the costs of *international* service links... The reduction in the cost of services... has fostered increased fragmentation and division of labor in production; the greater relative cost reductions for services linking international operations have... [stimulated] the use of international markets at every stage of the production process (Jones and Kierzkowski, 1990: 42-43).

Jones and Kierzkowski emphasize the possibility of long-term gains for LDCs, but their observations complement the new international division of labor position which emphasizes the exploitation of Third World labor forces. In the developed countries, however, recent industrial restructuring has been coupled with declining proportions of manufacturing employment in the old industrial regions. The roles of producer services in the world economy facilitate the production of goods at the global level. Thus, the one-time leading producers may not be able to maintain the preeminence with growing international competition over the long term.

Producer Services and Globalization of the Business Environment

Because the service sector was traditionally defined as a residual category of economic activity and because the service sector itself has grown and changed dramatically over the course of the past two decades, it must be noted that cogent definitions which can be accurately operationalized for measuring either the service sector as a whole, or the producer services in particular, are unavailable. However, the conceptual basis of the labels used to subdivide the producer services sector can be established as follows.

Producer services provide a range of service activities for a clientele which consists primarily of corporate entities. Thrift (1986) states, "Conventionally, producer services are regarded as those which provide services to other industries (which may themselves produce goods or provide services) which are of the 'intermediate type,' that is they are intermediate inputs into a final product." Thrift continues, providing the following classification of producer services (Thrift, 1986: 143-144):

- (1) Banking, credit and other financial services,
- (2) Insurance,
- (3) Real estate,
- (4) Engineering and architectural services,

- (5) Accounting and bookkeeping,
- (6) Miscellaneous business services,
- (7) Legal services.

Universal categorization of producer services is even more problematic than attempting to outline the scope of producer services in a single country since the range of producer services varies between industrial regions. An adequate summary of producer services in Japan, for example, includes an even broader range of areas than for the United States.² However, the conceptual basis for distinguishing producer services remains valid across national contexts.

Jones and Kierzkowski stress the role of producer services in an international system of “*production blocks and service links*” (emphasis in the original), which provide “bundles of activities consisting of coordination, administration, transportation, and financial services, . . . increasingly demanded when the fragmentation of the production process allows joint use of production blocks located in different regions” (Jones and Kierzkowski, 1990: 31). The international redistribution of production into fragmented blocks is driven by firms following their competitors in pursuit of enhanced competitive advantages worldwide. The result is an increasingly differentiated international division of labor depending on transnational service linkages to coordinate manufacturing, assembly, and distribution. Because minimum legal standards in areas such as labor relations and environmental protection vary between and among the developed and less developed countries, competitive advantage is the motivating force driving the new international division of labor.

Without international producer services, the transnational outsourcing of production and establishment of international input and distribution networks for production and marketing would demand higher costs since the necessary preparations for firms to transnationalize would have to be carried out “in-house.”³ International producer services can offer specialized knowledge and experience to lower the minimum investment threshold for the establishment of transnational production and distribution networks. But also, corporations’ services which had been developed in-house compete externally. As reported by the United Nations Conference on Trade and Development,

Externalization of service production has taken place at two levels. First, in-house services have been increasingly replaced by the purchase of specialized services from other firms. Second, services operations provided within the firm have tended to be sold to outside clients, a process which usually leads to the establishment of externalized subsidiaries that then sell the service both back to the parent firm and on the open market (UN, 1988: 144).

This development may entrench and expand the international networks of fragmented production blocks by permitting more companies to take advantage of in-

ternational differences in the factors which affect production costs (e.g., the cost of labor and environmental standards).

Producer services help the efficient use of inputs in the production process. Foreign investment accelerates the need for producer services to maximize efficiency in trade and manufacturing (Semyonov and Lewin-Epstein, 1986: 586). Therefore, producer services in the LDCs also have a strategic role as links in international production and trade networks accelerating the international distribution and fragmentation of production.

Information Technology

Information technology provides the latest example of how technology has enabled the increasing globalization of economic activity associated with the most recent shift in the structure of the international division of labor. Information technology has revolutionized the access, efficiency, and diversity of producer services and has helped the miniaturization of exports and the maintenance of quality control facilitating decentralization of production processes (Ogura, 1989: x-xii). It promotes structural adjustments by helping to respond to demands for products, production efficiency, quality control, and capital mobility. Information technology is helping to change the industry structure where new products are developed to gain competitive advantage. It has led to a growing integration of such financial services as banking, insurance and brokerage (Spero, 1985: 128). New telecommunications technologies allow centralized financial control over off-shore production facilities throughout the world. The faster communication infrastructure has enhanced the global mobility of capital. The United Nations Centre on Transnational Corporations verifies that "the new information technologies make possible instantaneous movements of funds across national boundaries" (UNCTC, 1987: 43). Information technology has not only made producer services more efficient but has also undermined the ability of national governments to exercise effective control on financial markets through various governmental regulations including monetary policies (Jussawalla, 1989: 12-14).

Communications technology, the introduction of the computer, demands for specialized products, and the emergence of multinational and multi-product corporations contributed to the growth of producer services; and it is important to note the concentrations of the major corporate players in the international financial command and control centers. Many TNCs are located in cities which also serve as bases for international banking and other producer services operating internationally. These places also have major research and development establishments where new technology, products, and management strategies are produced (Committee on National Urban Policy, 1983: 38; Noyelle, 1986: 150-151). Such centers are few in number and command tremendous economic power domestically and internationally. These

include such places as New York, Tokyo, London, Paris and Los Angeles. Due to their concentration of corporate headquarters, command and control centers influence the flow of capital and technology.

Producer Services and the Decentralization of Manufacturing

Evidence addressing the new international division of labor is available through national level employment, trade, and foreign capital investment statistics. While manufacturing has declined relative to services in the developed countries, some LDCs have shown a dramatic surge in manufacturing employment and exports. Table 1 gives the changes in the proportions of employment in manufacturing and in FIRE (finance, insurance and real estate) in the developed countries among nine major industrial divisions. We use FIRE as an indicator for employment levels of producer services in developed countries because of our emphasis on the role of financial institutions in the core. The trends show the decline of the proportion of manufacturing employment among the developed countries over the past two decades.⁴ The available data, however, do not distinguish between producer services which operate internationally and those whose activity is limited to the domestic economies.

The decline of manufacturing employment and rise of employment in FIRE in the developed countries does not imply a new "postindustrial" era in an ongoing process of global modernization (see Fernández Kelly, 1989: 615). The fact that producer services which "are intimately tied to manufacturing activities" are among "the most profitable 'service' industries of today" casts doubt on the idea that such trends mean the transition to a genuinely post-industrial society (Gereffi and Hamilton, 1990: 23).

Deindustrialization among the developed countries shows only one side of producer services' role in the international division of labor. The relevance to LDCs can only be illustrated by examining their growth in nonagricultural employment, foreign capital investment and export trends. Also, a large share of industrial relocation does not involve LDCs at all and occurs strictly within and among the core countries.

Early formulations of the new international division of labor position maintained that deindustrialization in the developed countries has been caused by TNCs relocating manufacturing jobs to LDCs. This prediction has not come about (ILO, 1988: 68-72). Thus, it is necessary to recast this "structural unemployment" thesis in terms of the global shifting of competitive advantages and to recognize that cyclical and secular changes in the levels of demand for specific products also help account for structural unemployment. In other words, structural unemployment is influenced by the business environment. The offshore relocation of production is also a consequence of the increasing globalization of the business environment, but any

Table 1
Changing Proportions of Employment in Manufacturing and FIRE Within Core Countries, 1970-1989

	1970	1975	1980	1985	1989
A. Manufacturing					
Australia	0.264	0.234	0.197	0.167	0.160
Austria	0.360	0.339	0.324	0.298	0.275
Belgium	0.327	0.301	0.249	0.225	—
Canada	0.227	0.202	0.197	0.175	0.170
Denmark*	0.249	0.227	—	0.202	—
Finland	0.264	0.274	0.266	0.226	0.211
France	0.279	0.279	0.254	0.229	0.211
W. Germany	0.366	0.358	0.340	0.318	—
Japan	0.270	0.258	0.247	0.250	0.242
Netherlands	0.264	0.241	—	0.193	0.187
New Zealand	0.246	0.242	—	—	0.177
Norway	0.238	0.241	0.201	0.173	0.155
Sweden	0.276	0.280	0.242	0.225	0.219
Switzerland**	0.364	0.337	0.317	0.298	—
United Kingdom	0.347	0.309	0.280	0.228	—
United States	0.273	0.238	0.221	0.195	0.185
B. Fire					
Australia	0.071	0.074	0.082	0.100	0.113
Austria	0.042	0.048	0.057	0.062	0.067
Belgium	0.050	0.059	0.061	0.072	—
Canada	0.049	0.051	0.095	0.101	0.112
Denmark*	0.059	0.062	—	0.075	—
Finland	0.035	0.049	0.054	0.063	0.078
France	0.048	0.063	0.072	0.081	0.095
W. Germany	0.050	0.053	0.058	0.072	—
Japan	0.033	0.057	0.068	0.078	—
Netherlands	0.057	0.065	—	0.089	0.099
New Zealand	0.060	0.064	—	—	0.098
Norway	0.039	0.046	0.053	0.064	0.075
Sweden	0.050	0.053	0.067	0.075	0.083
Switzerland**	0.065	0.075	0.083	0.092	—
United Kingdom	0.050	0.057	0.073	0.095	—
United States	0.085	0.093	0.084	0.103	0.113

Source: *Year Book of Labour Statistics*, International Labour Office, Geneva, 1976, 1981 and 1989-1990.

* Earliest figures for Denmark are from 1972.

**Earliest figures for Switzerland are from 1971.

Table 2

Basic Ownership and Production Arrangements for Exports from Developing Countries

Role	Typical Ownership Pattern	
	Basic Production	Export and Distribution
I. Commodity Exporting	domestic	foreign
II. Commercial Subcontracting	domestic	foreign
III. Industrial Subcontracting		
A. Export Processing	foreign	foreign
B. Components/Parts Supply	varies by region*	foreign
1. Capacity Subcontracting		
2. Specialization Subcontracting		
IV. Independent Exporting	domestic	domestic

Source: Gereffi (1990: 10-16) "Changing Roles of the NICs in the World Economy: Challenges to Development Theory".

* Component-supplier production is mainly foreign-owned in Latin America whereas independent component-suppliers are comparatively common in East Asia.

suggestion of a one to one association between structural unemployment in the developed countries and the offshore relocation of production is misleading. The ILO estimates the number of jobs created by TNCs (including their "foreign-affiliated enterprises") in EPZs located in LDCs to have been somewhere between 700,000 and 1 million between 1970 and the mid-1980s. However, during "the more recent 1975-1986 period, one can observe... a considerable increase in registered unemployment in the industrialized countries: the number of unemployed workers rose from 17.7 million in 1975 to some 30 million in 1986" (ILO, 1988: 68-69). The direct shift of employment within TNCs from developed countries to LDCs is too slight to account for structural unemployment in the developed countries. Yet, even with the loss of so many jobs in the developed countries the gross level of exports in the world economy increased more than ten-fold, from 288.6 billion dollars to 2,891 billion dollars, over the 1970s and 1980s (IMF, 1990: 120-121). It is necessary to conceptualize the relation between the reconfiguration of the international division of labor and structural unemployment in the developed countries in terms of geographical shifts in competitive advantages and in terms of changing demands for various products—not simply as the raw transfer of jobs by TNCs. As mentioned above and indicated in Table 2, there is a wide range of means by which Third World labor forces are mobilized for the manufacture of products for the world market.

The overall increasing trend in manufacturing employment in selected NICs and during the 1970s and 1980s are shown in Table 3 (the corresponding data available for Mexico are shown in Table 3a). These data show the increasing manufacturing employment in the NICs across the 1970s and 1980s. Clearly, there has been a dramatic increase in the manufacturing activities in some LDCs.

in Core

1989

0.160

0.275

-

0.170

-

0.211

0.211

-

0.242

0.187

0.177

0.155

0.219

-

-

0.185

0.113

0.067

-

0.112

-

0.078

0.095

-

-

0.099

0.098

0.075

0.083

-

-

0.113

1989-1990.

Table 3
Industrialization Indicators for Selected NICs and Near NICs

	Year	Manufacturing Employment (thousands)	GDP Share of Manufacturing	Export Share of Manufactures
A. Asia				
China	1970	—	—	—
	1975	—	—	—
	1980	—	44.1%	—
India	1970	—	14.2%	—
	1975	5127.0	15.6%	—
	1980	5872.0	17.2%	—
Indonesia	1970	—	9.3%	1.2%
	1975	3560.0	8.9%	1.2%
	1980	—	11.6%	2.2%
Malaysia	1970	—	13.4%	—
	1975	—	17.5%	—
	1980	768.8	21.9%	—
Philippines	1970	1354.0	22.6%	—
	1975	1546.0	24.9%	—
	1980	1850.0	24.8%	—
Singapore	1970	127.8	20.4%	—
	1975	218.1	24.1%	—
	1980	312.6	29.5%	—
S. Korea	1970	1336.0	20.9%	74.9%
	1975	2205.0	26.0%	76.8%
	1980	2955.0	28.0%	80.1%
Taiwan	1970	958.0	34.0%	76.8%
	1975	1518.0	37.0%	81.4%
	1980	2129.0	42.0%	88.1%
Thailand	1970	659.0	16.0%	—
	1975	1355.7	18.0%	—
	1980	1788.9	19.6%	—
B. Latin America				
Brazil	1970	2499.0	—	9.7%
	1975	3953.0	—	23.3%
	1980	—	—	32.8%
Mexico	1970	—	23.7%	—
	1975	2961.0	23.3%	—
	1980	—	23.3% (1979)	—

Source: *Comparative World Data: A Statistical Handbook for Social Science*, Georg P. Müller with the Collaboration of Volker Bornschie (1988).

Year Book of Labour Statistics, International Labour Office, 1976, 1981, 1989-1990.

Statistical Yearbook of the Republic of China, 1987, Directorate General of Budget, Accounting and Statistics, Executive Yuan, The Republic of China.

Table 3a
Manufacturing Employment Trends, Mexico, 1974-1979

Year	Manufacturing Employment (thousands)
1974	2834
1975	2961
1976	3138
1977	3277
1978	3424
1979	3574

Source: *Year Book of Labour Statistics*, International Labour Office, Geneva, 1981.

International Division of Labor and the Third World

As indicated previously, the key feature of the economic transformation of the last quarter century has been that LDCs commenced producing manufactured goods for the world market. Many companies in the industrial west and Japan found it profitable to relocate production of certain products that required the application of only simple technology. They maintain control through various forms of ownership or subcontracts and also through secrecy in research and development. The nature of products produced in whole or part and the type of technology used is largely determined by the foreign companies. The technology has enabled "commodity production [to be] increasingly subdivided into fragments which can be assigned to whichever part of the world can provide the most profitable combination of capital and labor" (Fröbel et al., 1980: 14).

Though much of the production in NICs is domestically owned, subcontracting arrangements with TNCs keep them in a buyer's market and the work-force in these countries is still underutilized. Many workers possess adequate education, skills and motivation so that they can be quickly trained for production processes that use simple technology. Not only are LDCs able to provide cheap labor but their political elites and business leaders are eager to gain a foothold as part of an interdependent global economic system. Their own indigenous economic development and institutional capacities have made them attractive production sites. Foreign investment, transportation and communication technology, simplification in the organization of production, relatively low labor and overhead costs, tax advantages and lax environmental regulations in the LDCs have made the world market increasingly accessible to them (Fröbel et al., 1980: 36-45). The traditional locational advantages for industries have become less relevant in developed countries, and the historical ties between geography and product have become tenuous.

Some of the major traditional industrial regions that led the way for national economic growth now struggle for economic survival. Protectionist industrial policies have had marginal impacts in the context of the global mobilization of capital

and labor. Therefore, industrial firms have had little choice but to expand operations abroad. It should be noted that this process of relocating production is selective and is perceived as necessary to remain competitive and to protect market share.

Conclusion

The most important elements affecting the international division of labor are technology, capital and labor. Access to the first two is determined by the developed countries and the third does not serve as an effective bargaining chip for LDCs. Capital accumulation and its value are enhanced by the exploitation of wage labor in LDCs through the efficient use of technology. The roles of telecommunications technology and producer services are pivotal in the global mobility of capital. Thus there is global interdependence in which the capacity to sustain industrial competitiveness and comparative advantages has become the essential factor for economic dominance worldwide.

The impact of recent change in the international division of labor has been perhaps most visible in the US. In 1979, the US carried a surplus of more than \$15 billion in manufactured goods, but by 1990 it changed into a deficit of about \$93 billion. The developed countries have been investing in each other's economy to avoid political squabbling associated with "dumping." For example, foreign steel companies invested more than \$3 billion in the US steel industry and started major joint ventures using some of the most sophisticated steel-making technologies (Judis 1991, Wall Street Journal).

The international division of labor has enhanced the efficient use of technology, capital, and labor. Some see global economic restructuring not in terms of winners and losers, but hold to the expectation of potential benefits for LDCs through integration into the world economy. As Michalski puts it, "The international division of labor leads to the gradual relocation of production activities toward the countries on the periphery of technological development, thus sustaining the momentum of global growth" (Michalski, 1989: 13). But such optimism is not shared by all. Furthermore, exclusive attention to aggregate economic growth in countries fails to consider how the class structures of countries are shaped by their integration into the world economy. The vicissitudes of socioeconomic change criss-cross the globe among the developed countries and between developed and developing countries.

The possibilities of long term gains for LDCs through the new international division of labor remain open to debate. Meanwhile, a large portion of the relevant inputs and technology for production in LDCs are imported while the outputs are largely for export. Their workers are cheap for external investors and domestic exporters but well paid on the basis of the local wage scale. Often, economic disparity is created locally while whatever gains there may be for the national economy conditions its development and increases its dependence on external linkages. Though

trade barriers are easing, much of the trading which characterizes the new international division of labor takes place between industrial nations themselves. LDCs trade very little among themselves and are heavily dependent on developed countries for export and import. Such dependence is underlined by the continued reliance on external trade relations not only for markets but also for the material inputs required for production.

This dependence has continued in spite of the fact that these countries have greater access to the world market. The most important elements in the global competition are control of capital and technology (Fröbel et al., 1980: 6-8). As long as these are primarily based in the developed countries, even those LDCs that have raw materials and an abundant work-force will not realize their full economic potential in the global marketplace. The transnational producer services which mediate and maintain the LDCs' roles in production for the world market and have facilitated the expansion and decentralization of the global economy are controlled by a few developed countries.

In the global context, national governments have less control over their economies when they are open to foreign competition, but this does not mean that a government cannot intercede in its country's economy if it views its economic and political interests to be poorly served in the long run. Some of the most unconstrained economies are also the most dominant and, therefore, for them the need for control is less pressing compared to economies which are not sufficiently developed to compete globally. In spite of ready access to technology there are still selective barriers and costs that disqualify many developing nations from establishing their own offshore production linkages. It is not easy for them to develop their financial services which are highly sensitive to state-of-the-art telecommunications technology (Spero, 1985: 115-116). The major producer services centers are concentrated in the western nations and Japan. They serve as major command and control centers and their supremacy in determining the economic future of less developed nations should not be overlooked.

As a conceptual framework, the new international division of labor draws attention to the competitive renegotiation of production roles among both developed countries and LDCs—and the social impacts of externally conditioned economic change. However, comparative research on relevant aspects of social structural change in both developed countries and LDCs is needed to understand better the economic, social and political implications of the new international division of labor.

NOTES

- 1 Contemporary perspectives which address conditions in less developed countries (LDCs) often categorize countries among three positions by their global economic and geopolitical centrality: core, periphery, or semi-periphery. The essential features of the core and periphery are most visible in their historical roles in the international division of labor. The concept of a semi-periphery is used

for formerly peripheral countries which have developed to share some features of core countries. The classification of countries used here is by developed and less developed countries based on measures of GDP/capita (following Arrighi and Drangel, 1986: 9-74).

- 2 See the United Nations Conference on Trade and Development (1988: 156-157).
- 3 Williamson (1981) illustrated that costs are cut by developing in-house capacities for routine functions, but in the case of non-routine functions costs are minimized and effectiveness enhanced when services can be obtained by out-of-house contrasting.
- 4 The exceptions are Japan from 1980 to 1985, Finland from 1970 to 1975, and Sweden from 1970 to 1975 (which each had an increase in their proportion of manufacturing employment during these periods). Also, from 1970 to 1975 France held a relatively steady proportion of manufacturing employment. Simultaneously, their proportion of employment in FIRE rose in all cases.

REFERENCES

- ARRIGHI, Giovanni and Jessica DRANGEL
 1986 "Stratification of the World Economy: An Explanation of the Semi-Peripheral Zone." *Review* 10 (Winter): 9-74.
- BORNSCHIER, Volker and Christopher CHASE-DUNN
 1985 *Transnational Corporations and Underdevelopment*. New York: Praeger Publishers.
- Committee on National Urban Policy
 1983 *Rethinking Urban Policy: Urban Development in an Advanced Economy*. Royce Hanson (Ed.). Washington, DC: National Academy Press.
- FERNÁNDEZ KELLY, Maria Patricia
 1989 "Broadening the Scope: Gender and International Economic Development." *Sociological Forum* 4 (December): 611-635.
- FRÖBEL, Folker, Jürgen HEINRICHS and Otto KREYE
 1980 *The New International Division of Labor: Structural Unemployment in Industrialized Countries and Industrialization in Developing Countries*. Pete Burgess (transl.). Cambridge: Cambridge University Press.
- GEREFFI, Gary
 1989 "Rethinking Development Theory: Insights from East Asia and Latin America." *Sociological Forum* 4 (December): 505-533.
 1990 "Changing Roles of the NICs in the World Economy: Challenges to Development Theory." Paper presented at the XII World Congress of Sociology. Madrid, Spain, 9-13 July.
 1991 "International Economics and Domestic Policies." In: Neil J. Smelser and Alberto Martinelli (Eds), *Economy and Society: State of the Art*, 231-258. Newbury Park: Sage Publications.
- GEREFFI, Gary and Gary G. HAMILTON
 1990 "The Social Economy of Global Capitalism: Modes of Incorporation in an Industrial World." Paper presented at the American Sociological Association meetings. Washington, DC, 11-15 August.
- International Labour Organization
 1976 *Year Book of Labour Statistics*. Geneva: International Labour Office.
 1981 *Year Book of Labour Statistics*. Geneva: International Labour Office.
 1989/90 *Year Book of Labour Statistics*. Geneva: International Labour Office.
 1991 *Year Book of Labour Statistics*. Geneva: International Labour Office.
 1992 *Year Book of Labour Statistics*. Geneva: International Labour Office.

- countries.
s based on
- International Labour Organization and United Nations Centre on Transnational Corporations
1988 *Economic and Social Effects of Multinational Enterprises in Export Processing Zones*.
Geneva: International Labour Office.
- International Monetary Fund
1990 *International Financial Statistics Yearbook*. Washington, DC: IMF.
- JONES, Ronald W. and Henryk KIERZKOWSKI
1990 "The Role of Services in Production and International Trade: A Theoretical Framework."
In: Ronald W. Jones and Anne O. Krueger (Eds), *The Political Economy of International Trade*, 31-47. Cambridge: Basil Blackwell.
- JUDIS, John B.
1991 "Time for an American Industrial Policy." *Wall Street Journal*, 14 February, A13.
- JUSSAWALLA, Meheroo
1989 "Overview of Thoughts Expressed on Information Technology and Economic Interdependence." In: Meheroo Jussawalla, Tadayuki Okuma and Toshiro Araki (Eds), *Information Technology and Global Interdependence*. New York: Greenwood Press.
- MICHALSKI, Wolfgang
1989 "Advanced Information Technologies: Challenges and Opportunities." In: Meheroo Jussawalla, Tadayuki Okuma and Toshiro Araki (Eds), *Information Technology and Global Interdependence*, 9-18. New York: Greenwood Press.
- MÜLLER, Georg P.
1988 *Comparative World Data: A Statistical Handbook for Social Science*. Baltimore: Johns Hopkins University Press.
- ROYCE HAN-
NOYELLE, Thierry J.
1986 "Advanced Services in the System of Cities." In: Edward M. Bergman (Ed.), *Local Economies in Transition: Policy Realities and Developmental Trends*, 143-164. Durham: Duke University Press.
- Sociological
OGURA, Kazuo
1989 "Forward: Information Technologies and International Relations." In: Meheroo Jussawalla, Tadayuki Okuma and Toshiro Araki (Eds), *Information Technology and Global Interdependence*, ix-xiii. New York: Greenwood Press.
- alized Coun-
Cambridge:
Republic of China. Executive Yuan.
1990 *Statistical Yearbook of the Republic of China*. Taipei.
- Sociological
SEMYONOV, Moshe and Noah LEWIN-EPSTEIN
1986 "Economic Development, Investment Dependence, and the Rise of Services in Less Developed Nations." *Social Forces* 64 (March): 582-598.
- ment Theory."
13 July.
erto Martinelli
Publications.
SPERO, Joan E.
1985 "Comment: US Trade Policy and International Service Transactions." In: Robert P. Inman (Ed.), *Managing the Service Economy: Prospects and Problems*, 179-181. New York: Cambridge University Press.
- ustrial World."
on, DC, 11-15
THRIFT, Nigel
1986 "The Internationalization of the Producer Services and the Integration of the Pacific Basin Property Market." In: Michael Taylor and Nigel Thrift (Eds), *The Geography of Multinationals*, Vol 2: *Multinationals and the Restructuring of the World Economy*, 142-192. London: Croom Helm.
- United Nations Centre on Transnational Corporations
1987 *Foreign Direct Investment, the Service Sector and International Banking*. UNCTC Current Studies, Series A, No. 7, May. New York: United Nations.

United Nations Conference on Trade and Development

1988 *Trade and Development Report*. New York: United Nations.

WILLIAMSON, Oliver E.

1981 "The Economics of Organization: The Transaction Cost Approach." *American Journal of Sociology* 87: 548-577.