

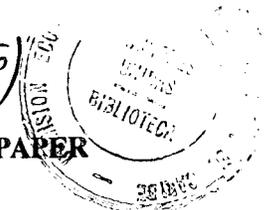
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A NEW INTERNATIONAL INDUSTRIAL ORDER I: *

Increased International Competition in a
Transnational Corporation-Centric World

* This publication was prepared by Mr. Michael Mortimore, staff member of the ECLAC/Department of Economic and Social Development (DESD) on Transnational Corporations and represents part of the general framework of the ECLAC/DESD project on TNCs and Industrial Restructuring in Latin America. This document has been reproduced without formal editing and the views expressed herein are those of the author and do not necessarily reflect the views of the Organization.

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The twentieth century has witnessed some of the more dramatic and traumatic upheavals in world history, yet toward the end of that century a broad consensus was taking shape with regard to central features of the contemporary political economy. On an economic plane, it became apparent that 'the market' was deemed the appropriate instrument to broker competing interests. On the political plane, representative democracy was considered the appropriate means to choose between different political orientations. On the social plane, things were not as clear, however, it was evident that self-help was displacing governmental schemes of social welfare. Common to all these elements of the growing consensus was the central fact that competition, in general, was being both heightened in intensity and channelled through mechanisms designed to reduce violent outcomes.

This new consensus was partly the result of the new power relations taking form. In terms of international relations, the East-West and North-South dimensions of conflict had been resolved through abandonment due to the implosion of the Soviet bloc and the apparent dissolution of the Southern one. The new key issues in international relations were ones involving the new Triad of power, that is, the United States, the European Economic Community and Japan. Those countries accounted for 2/3 of world GDP, 4/5 of outward stocks of foreign direct investment and over 2/3 of world trade. 1/ At the national level, the new power relations affected the private and public sectors leaving a clear sensation that business had increased its share of power and that the public sector's influence had declined. The nature of the business/government relation was central, in distinct ways, to the dynamic of each Triad member. 2/

A central part of this new consensus has been transmitted to the rest of the world in the form of the "Washington consensus" or the "Bank/Fund orthodoxy" named after the evolving influence of the World Bank and the International Monetary Fund. 3/ The principal aspects of that orthodoxy concerned non-inflationary macroeconomic policy based on modest budget deficits and prudent monetary policy; greater openness to trade and foreign investment; and greater reliance on market forces as allocators of resources, especially in industry and agriculture.

An important phenomenon which made itself evident towards the end of the twentieth century was the transnational corporation (TNC)-centric nature of the changes taking place. The transnationalization process 4/ was manifest in the growing role of 'global' TNCs 5/ in most aspects of the contemporary international political economy. Just 600 TNCs, each with 1985 sales greater

than U\$1 billion, were responsible for 1/5 of total (non-socialist bloc) industrial and agricultural value added. Their primary lines of business (as measured by sales) were concentrated in the petroleum (24.6%), machinery and equipment (24.5%), chemical (13.5%) and motor vehicle (12.6%) industries. More to the point, 10 of these TNCs controlled 66.2% of the world semiconductors market, 9 others accounted for 89% of the world telecommunications market and 10 others took care of an unspecified but majority share of the world computer market. 6/

TNCs increasingly dominate international trade and investment flows and an increasing proportion of such flows are becoming essentially internal operations of expanding global networks. Effectively, the "most recent decade was marked by increasing economic interdependence and globalization of markets through a rapid acceleration of trade and investment flows, the creation and diffusion of new technologies, the explosive growth of capital markets and financial market integration, and the conduct of business operations on a world-wide basis. ...The prime actors in this globalization process obviously are multinational firms, through their waves of investment and corporate linkages, which allow them to operate on a world-wide basis." 7/ As well as provoking greater inter-TNC rivalry, the high expenditure necessary to keep a TNC on the leading edge of technology paradoxically is fomenting a kind of strategic alliance formation referred to as 'technoglobalism', that is, new forms of international networking among TNCs dealing with research and development and technological matters. 8/

The common denominator to all these changes has been heightened competition and an increased concern for the rules of the game. The new competition has not affected all countries, industries or firms equally. In somewhat oversimplified terms a handful of innovating Japanese-based firms operating in the automotive, semiconductor/computer, consumer electronics, office equipment, machine tools and other sectors have shocked their US- and European-based counterparts by overwhelming their world market positions and/or savagely penetrating their home markets. The home governments of the European-based TNCs seemed less reticent about attempting to stifle import competition by way of blatant trade restrictions. The US-based ones had a more difficult time reacting. They were shaken out of their comfortable post-war oligopoly positions without recourse to the same level of government assistance as the European TNCs. Once the TNCs under attack understood that their situation was not to be remedied through permanent governmental assistance or by throwing capital resources at possible new scientific or technological breakthroughs, they began to face up to the task of improving their capacity to compete internationally. In this sense, the new era of international competition is based at its source on a few thousand large and innovative TNCs

in head-on competition over a dozen high-technology and/or trade-intensive industries serving three huge markets: the US, Europe and Japan. That lay the basis for what has become known as 'industrial restructuring', which is central to the new international industrial order.

As Kaplinsky ^{9/} has shown, industrial restructuring as a concept has at least four distinct interpretations. According to the French Regulationist school, industrial restructuring is the means by which a sustainable path of accumulation-- based on a regime of accumulation (which balances consumption, savings and investment) and a mode of regulation (institutional forms and social patterns of behavior which underwrite the regime of accumulation)--is arrived at. ^{10/} The neo-Schumpeterian structuralists view it in terms of 50 year long-wave cycles of fundamental (or, 'heartland') technological breakthroughs that sustain growth. To previous industrial growth cycles based on textiles, steel, railroads and the internal combustion engine, they now add the current one based on microelectronics. ^{11/} Another interpretation regards the current transition in terms of the exhaustion of the mass production paradigm, that is, the production of standardized commodities through the use of special purpose machinery and a rigid division of labor and its replacement by way of a new flexible specialization paradigm based on smaller batches of differentiated products made with general-use flexible machinery and new forms of work organization. ^{12/} Finally, another vision interprets the present situation in terms of a transition from 'machinofacture' to 'systemofacture', that is, a new organizational practice in which the integration of the productive units via automation technology, new interfirm relations and integral work practices supersedes individualist orientations. ^{13/} Each of these interpretations captures some element of the essence of the new international industrial order taking form toward the end of the twentieth century.

In the rest of this article the topic of increased international competitiveness in the form of globalization, specialization and regionalism will be examined. The preponderant role of transnational corporations in the field of industrial restructuring is highlighted, especially with regard to the two principal areas where the increased international competition has been most evident, that is, trade and foreign direct investment.

Trends Toward Increased International Competition: globalization, specialization and regionalism

In order to better comprehend the significance of the increased international competitiveness it is pertinent initially to refer to the very nature of the evolution of capitalism and the modern industrial enterprise. ^{14/} The birth of the capitalist system of production coincided with the

industrial revolution in Europe, particularly in England. As a result, personal capitalism in Britain or the personal management of the family enterprise became the epitome of the first phase of capitalist development based primarily on activities in the brewing, textiles, publishing and printing, shipbuilding, chemical and light machinery industries.

In the last half of the nineteenth century a new form of capitalism appeared principally in the United States and the rest of Europe: **managerial capitalism**. Managerial capitalism was based on the recruitment of professional managers whom undertook longer term investments and implemented new organizational practices to gain market share. As Chandler explains it took two primary forms, competitive managerial capitalism most evident in the United States and cooperative managerial capitalism in Germany. In the United States managerial capitalism was considered competitive because, after a convoluted struggle between government and business in which trust-busting was implemented to break up expanding private industrial empires, unabashed competition among principally independent industrial entities became the norm for the expansion of manufacturing activities which carried that economy to world class stature. At its core the competitive advantage of American competitive managerial capitalism was manifest in innovation and a productive process based on exploiting economies of scale by way of heavy capital investment in long lines of production for standardized products, coupled with complementary investment in marketing and the development of strategies of global expansion. Its success during the twentieth century was symbolized by the mass production of the automobile as well as by the concern of others with 'the American challenge'.^{15/} Managerial capitalism eventually gave birth to the transnational corporation.

In general the system of managerial capitalism which blossomed in Germany was similar to that in the United States; however, there were three very important differences.^{16/} One was that the German variant was more centered on intermediate and capital goods (to the exclusion of consumer goods), most notably in the chemical and heavy machinery industries. Secondly, and related to the first, Germany's competitive advantage as often as not related to economies of scope as those of scale. Thirdly, and by far the most important, German capitalism was grounded on a cooperative approach to interfirm (with suppliers and competitors) and intrafirm (with labor) relationships. Central to this cooperative approach is the concentration of capital or coordinated business operations by groups. The ten top banks, especially Deutsche Bank, possess important holdings of the shares of the 100 largest manufacturing firms. These characteristics were particularly suited to the European situation and assisted Germany in both developing into the strongest industrial economy of Europe and facing up to the American challenge at home and abroad; however, cooperative managerial capitalism reached its fullest expression in Japan later in the twentieth century.

The Japanese version of cooperative managerial capitalism has been steamrolling international competitors in many strategic industries over the last decade or so. Their 'system', as well as dominating limited variety, large-lot mass production manufacturing, is achieving what was considered

the impossible in the sense that it combines multi-variety, small-lot and more flexible lines of production with cost reductions as well as improved quality.^{17/} Japanese industrial success seems to rest on a host of factors of which two can be highlighted. First, they have demonstrated a long term strategic commitment to industrial innovation and upgrading, something Harvard Business School's Professor Michael Porter considers the essence of competitive advantage. ^{18/} Secondly, cooperation is taken to new lengths. In terms of labor relations, that translates into salaries which to a certain extent reflect not the productive task that the laborer performs but the ones that he is capable of performing. Most important of all, in terms of relations with other firms, it translates into the formation of keiretsu, or strategic business alliances, among the principal enterprises such that most internationally competitive companies are organized into just 6 or so central business groupings ^{19/}, as is shown in Table 1, which operate with a good deal of governmental assistance in targeting their next prey. Instead of producing stagnant cartels, as the free market entrepreneurship argument runs, it produces global winners. ^{20/} A burgeoning literature of the variety of "Why Japan Keeps On Winning" ^{21/} and "The Battle For Europe: Japan muscles in on the West and a shakeout begins" ^{22/} clearly suggests as much.

While it has been maintained that the fountainhead of international competitiveness is the capitalist mode of production as manifest in specific national variants, it can also be reduced to certain 'market model' considerations. ^{23/} Ostry distinguishes the US pluralist market economy from the continental European social market economies and the Japanese managerial market economy highlighting differences in terms of the role of government, market failure, time horizons, the government/business interface, etc. The point of the matter is that the Japanese managerial model has been savagely penetrating the US pluralist market economy and apparently is beginning to do the same with the continental European social market economy.

Porter's 'stages theory of competitive development,' as refined by Ozawa ^{24/}, is quite relevant here. Porter defines the competitive development of national economies in terms of four stages, which he summarizes according to their central and sequential competitive feature: i) factor-driven, ii) investment-driven, iii) innovation-driven and iv) wealth-driven. According to him, the first three stages involve successive upgrading of a nation's competitive advantages and will normally be associated with progressively rising economic prosperity, whereas the fourth stage is usually characterized as one of drift and ultimately decline.

Natural resource-based activities and/or labour-intensive manufacturing are central to competitive advantages in the first stage, whereas the investment-driven stage is based on the manufacture of intermediate and capital goods (heavy and chemical

Table 1

THE MAIN MOVERS IN JAPAN'S BIGGEST BUSINESS GROUPS
 includes only companies represented
 at monthly council meetings

A. INDUSTRY	Mitsubishi	Mitsui	Sumitomo	Fuyo	DKB	Sanwa
Cars	Mitsubishi Motors 69	Toyota Motor 6/ 6		Nissan Motor 20	Isuzu Motors 127	Daihatsu Motor 262
Computers, Electronics & Electrical Equipment	Mitsubishi Electric 49	Toshiba 29	NEC 40	Oki Electric Industry Yokogawa Electric Hitachi 9/ 12	Fujitsu 63 - Fuji Electric 259 Yaskawa Electric Mfg. Nippon Columbia Hitachi 9/	Iwatsu Electric Sharp 134 Mitto Denko Kyocera 434 Hitachi 9/ 12
Metals	Mitsubishi Steel Mfg 250 Mitsubishi Materials Mitsubishi Cable Industries	Japan Steel Works Mitsui Mining & Smelting 457	Sumitomo Metal Industries 98 Sumitomo Metal Mining 327 Sumitomo Electric Industries 190 Sumitomo Light Metal Industries	NKK 130	Kawasaki Steel 152 Kobe Steel 9/ 143 Japan Metals & Chemicals 340 Nippon Light Metal Furukawa Furukawa Electric 256	Kobe Steel 9/ 143 Makayama Steel Works Hitachi Metals Misshin Steel 409 Hitachi Cable
Industrial Equipment	Mitsubishi Heavy Industries 70 Mitsubishi Kakoki	Mitsui Engineering & Shipbuilding	Sumitomo Heavy Industries 432	Kubota 237 Nippon Seiko 485	Niigata Engineering Iseki Ebara Kawasaki Heavy Industries Ishiwajima-Harima Heavy Industries 241	NTN Hitachi Zosen Shin Meiwa Industry
Rubber & Glass	Asahi Glass 151		Nippon Sheet Glass		Yokohama Rubber 449	Toyo Tire & Rubber

Chemicals	Mitsubishi Kasei 161 Mitsubishi Petrochemical 412 Mitsubishi Gas Chemical Mitsubishi Plastics Industries Mitsubishi Kasei Polytec	Mitsui Toatsu 386 Chemicals Mitsui Petrochemical Industries	Sumitomo Chemical 182 Sumitomo Bakelite	Shouwa Denko 314 Nippon Oil & Fats Kureha Chemical Industry	Kyowa Hakkō Kogyo Denki Kagaku Kogyo Nippon Zeon Asahi Denka Kogyo Sankyo 438 Shiseido 410 Lion	Ube Industries 317 Tokuyama Soda Hitachi Chemical Sekisui Chemical 276 Kansai Paint Tanabe Seiyaku Fujisawa Pharmaceuticals
Fibers & Textiles	Mitsubishi Rayon	Toray Industries 231		Nishinbo Industries Toho Rayon	Asahi Chemical Industry 158	Unitika Teijin 336
Pulp & Paper	Mitsubishi Paper Mills	Oji Paper 306		Sanyo-Kokusaku Pulp 405	Honshu Paper 422	
Generators & Optics	Wikon	Onoda Cement 446		Canon 104 Nihon Cement	Asahi Optical Chichibu Cement	Hoya Osaka Cement
Cement				Tonen 246	Showa Shell Sekiyu 139	Cosmo Oil 155
Oil & Coal	Mitsubishi Oil 325	Kippon Flour Mills		Mitsubishi Flour Milling Sapporo Breweries Michirei 399		Itoham Foods 421 Suntory
Food & Beverages						
3. SERVICES						
Financial services	Mitsubishi Bank Mitsubishi Trust & Banking Meiji Mutual Life Tokio Marine & Fire	Mitsui Taiyo Kobe Bank Mitsui Trust & Banking Mitsui Mutual Life Taisho Marine & Fire	Sumitomo Bank Sumitomo Trust & Banking Sumitomo Life Sumitomo Marine & Fire	Fuji Bank Yasuda Trust & Banking Yasuda Mutual Life Yasuda Fire & Marine	Dai-ichi Kangyo Bank Asahi Mutual Life Taisei Fire & Marine Fukoku Mutual Life Nissan Fire & Marine Kankaku Securities Orient	Sanwa Bank Toyo Trust & Banking Nippon Life Orix
Trading & Retailing	Mitsubishi	Mitsui Mitsukoshi	Sumitomo	Marubeni	C. Itoh Nissho Iwai a/ Kenematsu Kawasho Seibu Department Stores	Mitsuo Iwai a/ Nishimen Iwatani International Takashimaya

Construction	Mitsubishi Construction	Mitsui Construction Sanki Engineering	Sumitomo Construction	Taisei	Shimizu	Toyo Construction Obayashi Sekisui House Zenitaka
Real Estate	Mitsubishi Estate	Mitsui Real Estate Development	Sumitomo Realty & Development	Tokyo Tatemono	Tokyo Dome	
Mining & Forestry		Mitsui Mining Hokkaido Colliery & Steamship	Sumitomo Forestry Sumitomo Coal Mining			
Shipping & Transportation	Nippon Yusen Mitsubishi Warehouse & Transportation	Mitsui OSK Lines Mitsui Warehouse	Sumitomo Warehouse	Shoka Line Keihin Electric Express Railway Tobu Railway	Kawasaki Kisen Shibusawa Warehouse Nippon Express B/	Maivix Line Hankyu Nippon Express/L

Source: Fortune, 15 July 1991.

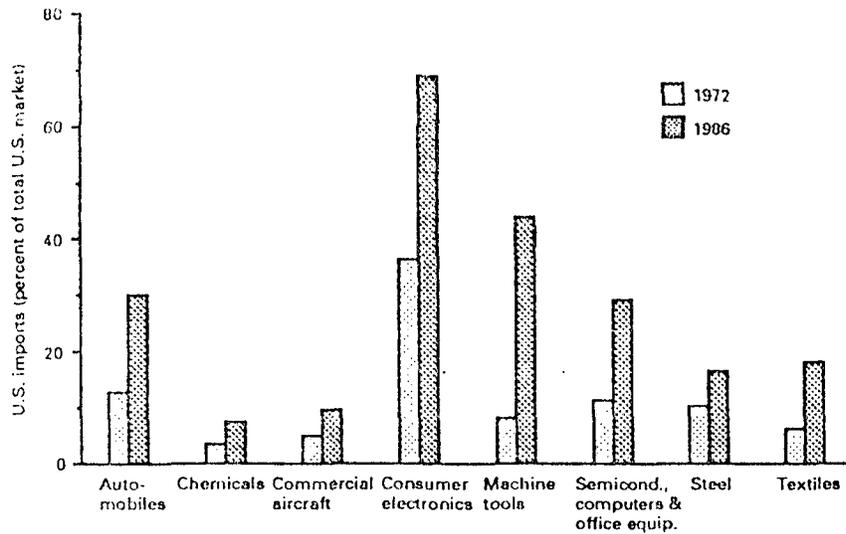
a/ Companies affiliated with more than one group. The numbers beside some companies represents their rank by sales among the world's 500 largest industrial companies.

industrialization) and infrastructure (housing, transportation, communications and public works construction). The innovation-driven stage rests on research and development successes deriving from the abundant use of human capital. It would appear that while most developing countries are found in the factor-driven and, less evidently, in the investment-driven stages, most so-called developed countries are found in the more advanced phases of the investment-driven stage or in the earlier phases of the innovation-driven stage of competitive development. One might speculate that the United States has entered the wealth-driven stage characterized by drift and ultimately decline.

Ozawa has given life to this scheme by demonstrating how the Japanese experience delineates the close inter-relatedness among structural upgrading, dynamic comparative advantage and foreign direct investment, along the paths of its physical/human capital-intensive factor endowment and technological progress. In this way, he clarifies how a particular stage of competitive development is associated with a particular pattern of export competitiveness: the first stage is characterized by factor-based trade advantages in either primary commodities or labour-intensive goods, the investment-driven stage produces scale-based advantages in large-scale, capital-intensive goods, and the innovation-driven stage results in R & D based advantages manifest in exports of more technologically-sophisticated products. In this sense, economic growth and transformation is accompanied by the changing patterns of dynamic comparative advantage. It should be mentioned that these changes are not simply one-shot transformations rather they result from progressive transitions characterized by the simultaneous rise and fall of particular economic activities and can be conceptualized as the shift in the center of gravity of the economy as a whole.

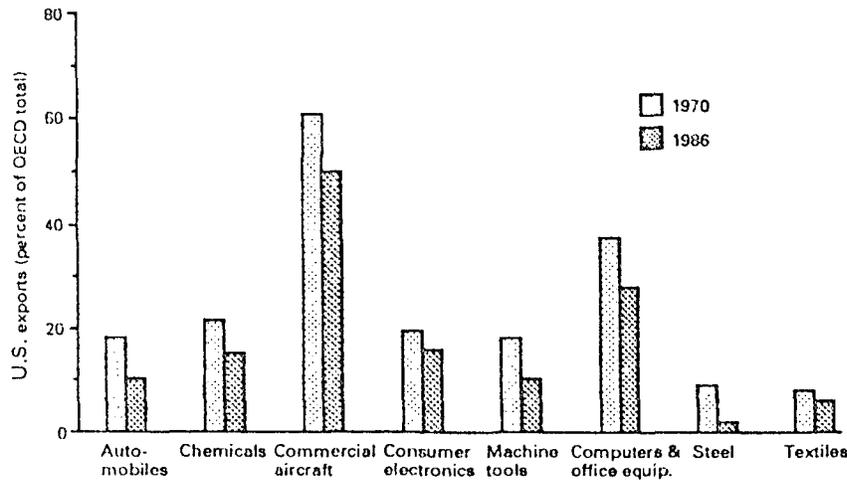
Ozawa has also indicated how the nature and direction (inward and outward) of foreign direct investment changes in step with the structural transformation of the economy. The factor-driven stage results in inward FDI characterized as resource- or labour- seeking. The second stage, the investment-driven one, produces inward FDI in the capital and intermediate goods industries while simultaneously generating outward FDI in labour-intensive manufacturing in lower wage countries and in resource extraction abroad for natural resource-scarce countries. In similar fashion, the transition to the innovation-driven stage brings about simultaneous inward FDI in technology-intensive industries and outward FDI in the intermediate goods industries. Based on this scheme and utilizing the example of the explosive transformation of the Japanese economy during the twentieth century, Ozawa relates trade and foreign direct investment developments to Porter's stages theory of competitive development. It can also be thought of as providing the framework for some of the major alterations taking place in global trade and investment flows.

Figure 1 and Figure 2



U.S. imports in industries studied

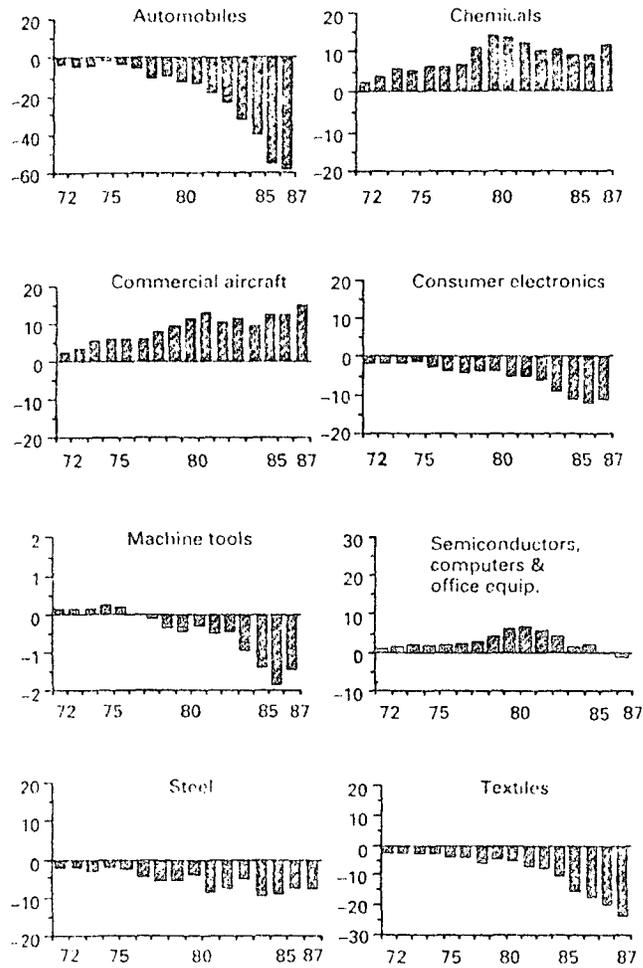
Sources: Based on data made available by the U.S. Department of Commerce, International Trade Administration, Office of Trade Information and Analysis, supplemented by data presented in U.S. Department of Commerce, International Trade Administration, *U.S. Industrial Outlook, 1988* (Washington, D.C.: U.S. Government Printing Office, 1988); and Organization for Economic Cooperation and Development, COMTAP Database.



U.S. exports in industries studied

Sources: Based on data made available by the U.S. Department of Commerce, International Trade Administration, Office of Trade Information and Analysis, supplemented by data presented in U.S. Department of Commerce, International Trade Administration, *U.S. Industrial Outlook, 1988* (Washington, D.C.: U.S. Government Printing Office, 1988); and Organization for Economic Cooperation and Development, COMTAP Database.

Figure 3



Trade balance in industries studied

Trade balances are in terms of billions of current U.S. dollars. Source: Data made available by the U.S. Department of Commerce, International Trade Administration, Office of Trade Information and Analysis.

If one conceives of the international trade system to consist of four essential ingredients--North America, the European Community, Asia/Pacific and the rest of the world--the major imbalances registered in international trade flows in the last decade or so concern the surpluses registered by Asia/Pacific with North America and, to a lesser extent, the European Community.^{25/} Some indication of the magnitude of the changes taking place is captured by Figures 1 through 3 which deal with the import penetration, export performance and foreign trade balance of eight major US manufacturing industries, most of which are considered "strategic industries", ^{26/} between 1970 and 1986. The message is clear: imports to the US are up appreciably, US exports to the OECD countries are down notably and the trade balance has worsened significantly. Since then US exports have picked up due to the depreciation of the dollar. In spite of this favorable development, even a casual glance at the 1991 sales and profit figures of the Fortune 500 largest US industrial corporations shows that 30 of the largest 60 corporations suffered a decline in sales compared to 1990 and 31 withstood a decline in profits compared with the same year. The largest of the 500 companies in important industries such as motor vehicles and parts (\$7.5 billion), computers/office equipment (\$2.8 billion) and industrial and farm equipment (\$661 million) together suffered severe losses.^{27/} Even if one considers the post-war years to be aberrant ^{28/}, there is no hiding the pain for a humbled America. American concerns for 'Made in USA' are clearly justified. ^{29/} American industry, even high-technology industry, has lost ground in world markets and is suffering increased competition at home. Moreover, an increasing share of US domestic production is foreign-owned. ^{30/} The trade situation is caused primarily by Japanese TNCs which in 1990 were running a trade surplus with the US of \$22.3 billion in computers and telecommunications equipment, \$20.5 billion in cars and trucks and \$9 billions in industrial equipment, three principal high technology and/or trade intensive industries. The increase in foreign investment in US production had to do more with European than Japanese TNCs; however, both were very active. None the less, it was with Japan that the US felt most uncomfortable and a serious rift was opened. ^{31/}

It makes sense to place the US-Japan rift in the broader context of changes in international trade and its 'neglected twin', foreign direct investment. ^{32/} The globalization and specialization tendencies of trade will be dealt with first; followed by the globalization and regionalization tendencies in the field of foreign direct investment.

i) Tendencies in International Trade: globalization and specialization

The principal alterations in the international trading system over the last few decades have been its notable expansion; the upsurge of major new exporters (Japan and the Asian NICs); the opening up of the United States market and, to a much lesser extent, the European Economic Community to increased import flows; and, the increase in system tension or conflict associated with these alterations.

An interesting industrial taxonomy has been developed to succinctly capture the global changes in terms of country trade specialization.^{33/} As well as confirming the principal winners (Asian NICs, Japan) and losers (European Economic Community, USA) in world trade over the 1970-89 period, this analysis offers insight into the trade specialization taking place on the part of the EEC, Japan and US. The following two paragraphs rest largely on Guerrieri's work. In general, as Table 2 indicates, Japan and the US underwent significant trade specialization during the 1970-89 period, whereas the EEC did not. Of the major countries, Japan had the best trade performance over the last two decades and, as Table 3 demonstrates, that success was manifest in a doubling of market shares in science-based sectors (fine chemicals, electronic components and telecommunications) that is, areas characterized by innovative activities directly linked to high research and

Table 2

SECTORAL DISTRIBUTION OF TOTAL JAPANESE, US AND EEC EXPORTS OF MANUFACTURES TO THE OECD, 1970-1973 AND 1986-1989

(In percent)

	Japan		United States		European Community ^{a/}	
	1970-73	1986-89	1970-73	1986-89	1970-73	1986-89
Science-based	11.3	27.3	19.0	30.5	11.0	16.6
Specialized suppliers	10.4	15.3	15.9	10.5	15.2	12.9
Scale intensive	53.8	46.4	23.4	21.4	31.2	30.7
Resource intensive	2.0	2.0	5.5	5.6	6.8	6.4
Traditional	17.6	6.8	7.8	7.3	18.6	17.0
Food industries	1.7	0.5	4.7	4.6	7.7	7.8
Food items and agricultural raw materials	1.0	0.3	16.0	9.7	4.6	3.9
All other	2.2	1.4	7.7	10.4	4.9	4.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Source: Guerrieri, P., "Technological and trade competition: a comparative analysis of the United States, Japan and the European Community", mimeo, July 1991.
^{a/} Nine members.

Table 3
 MARKET SHARE OF EXPORTS OF JAPAN, UNITED STATES AND THE EUROPEAN COMMUNITY
 IN WORLD EXPORTS OF MANUFACTURES BY SECTOR, 1970-1973 AND 1988-1989

(In percentage)

	Japan			United States			European Community a/		
	1970-73	1988-89	change	1970-73	1988-89	change	1970-73	1988-89	change
Science based (R&D intensive electronics) b/	8.5 (9.4)	16.4 (21.5)	7.9 (12.1)	27.1 (28.5)	20.1 (19.5)	-7.0 (-9.0)	46.4 (45.0)	37.8 (29.0)	-8.6 (-16.0)
Specialized suppliers	7.0	15.7	8.7	20.3	12.7	-7.6	57.2	49.9	-7.3
Scale intensive	15.4	16.7	1.3	12.8	9.6	-3.1	51.7	47.4	-4.3
Traditional	8.2	3.9	-4.3	6.9	5.4	-1.5	50.4	42.5	-7.9
TOTAL	9.0	11.6	2.6	13.5	11.3	-2.2	48.6	44.0	-4.7

Source: Guerrieri, P., "Technological and trade competition: a comparative analysis of the United States, Japan and the European Community", mimeo, July 1991.

a/ 12 member countries.

b/ Subsector of science based which includes data processing equipment, electronic components and telecommunication equipment.

development expenditures, that generate broad spillover effects on the whole economic system, and which serve as intermediate and capital inputs to a large number of other sectors, and considerable gains in specialized suppliers industries (investment goods based on mechanical and instrument engineering, such as machine tools), that is, activities characterized by a high diversification of supply that serves mainly as inputs into the scale-intensive and supplier-dominated sectors, and with significant economies of scope. Japanese trade specialization was particularly strong in the research and development-intensive electronic sectors (such as data processing systems, electronic components and telecommunications) and they moved decisively out of traditional sectors.

The flip side of the Japanese advance in world trade shares of manufactures was represented by the US decline. It was precisely where the Japanese TNCs made the greatest inroads-- electronics, and specialized suppliers industries-- that the most negative results for US firms were registered. Table 2 indicates that while US enterprises have succeeded in very much furthering specialization in the science-based sectors, except electronics; they experienced increasing difficulties in transforming high-level scientific and research capability into innovative activities and products with significant commercial value in the other manufacturing sectors.^{34/} Table 3 shows how market shares in dynamic sectors crumbled. They suffered a kind of de-specialization in specialized suppliers and scale-intensive sectors (automobiles, consumer electronics and consumer durables, as well as the rubber and steel industries), the latter being areas characterized by oligopolistic industries with high capital intensity, wide economies of scale, high technical and managerial complexity and significant in-house engineering activities. Furthermore, US firms were not very successful in moving out of traditional sectors.

Another way of defining winners and losers with regard to foreign trade over the last decade or so is that carried out by Mandeng. ^{35/} Considering that economic growth has become more trade-intensive and that the dynamic elements are centered on large firms producing technologically complex manufactures for imperfectly competitive global markets, and that certain new players (Japan and the Asian NICs) are rapidly improving their trade performance ^{36/}, it makes sense to focus on the changes taking place in OECD overall imports.

Fajnzylber ^{37/}, based on Mandeng, defines not only the 'winners' that increased market share between 1979 and 1988, he analyzes gains according to the principal products involved, in the sense that he distinguishes products enjoying increased global market shares from those that do not. In other words, 'winner' countries can increase market shares with 'dynamic' products (the optimal situation of 'rising stars') or 'declining' ones (a situation of vulnerability ascribed to 'declining stars').

Conversely, 'loser' countries might lose market shares with either 'dynamic' products (a situation defined as 'lost opportunities') or 'declining' ones (a situation called 'retreat'). Naturally, the mix of products for virtually all countries contains examples of both kinds. The overall situation is, none the less, revealing, as is suggested by Table 4. It is another useful indicator.

Among the principal OECD countries, Japan clearly has enjoyed the most important market gains and, more importantly, 80 percent of their exports enjoy the optimal situation and virtually all are non-natural resource-based manufactures. With few exceptions (Netherlands and the UK), the European Community members generally made minor market gains, however, with the exception of Portugal, the 'winners' faced many lost opportunities in their export performance even though they exported mostly non-natural resource-based manufactures. Bad off were Australia and New Zealand whose natural resource or natural resource-based manufactures were characterized by situations of vulnerability or retreat. The United States lost market share, even fewer of its products were in an optimal situation and even more were in one of lost opportunities than the Europeans. A similar proportion of export products were in retreat, faced with the onslaught of the Japanese. In this manner, Table 4 ratifies and clarifies central aspects of the trade situation for the OECD countries.

This dramatic shift in foreign trade performance by OECD countries naturally provoked discontent on the part of the losers. The Europeans reacted positively by way of accelerated integration in the form of the Europe 1992 initiative and negatively with a policy of applying anti-dumping duties to the avalanche of finished products landing on their doorstep, supplemented by fixed quantitative import restrictions in certain sectors, such as automobiles. New initiatives in the field of merger and takeover policy are also worth noting. ^{38/} Some of the principal effects are, first, to promote local assembly facilities by way of foreign direct investment and, second, to slowly raise the levels of local content in those facilities. ^{39/} Overall and in general, through bureaucratic procedures and trade restrictions the EEC members were made less penetrable and given more time to adjust.

Table 4
EXPORT MARKET DYNAMICS FOR PRINCIPAL OECD COUNTRIES, 1979 AND 1988

Exporting Country	Share of OECD imports		Export classification (%)				Structure of exports (%)					
	1979	1988	Percentage change	Optimal a/	Vulnerable b/	Lost opportunities c/	Retreat d/	Natural resource	Energy	Natural resource based	Manufactures	Non natural resource based
I. "Winners"												
Japan	4.63	8.15	76	80	4	11	5	-	-	4	4	96
Portugal	0.27	0.52	93	75	12	10	3	5	2	23	23	71
Canada	4.48	4.91	10	43	15	27	15	9	9	29	29	52
Italy	4.35	5.01	15	35	13	46	6	4	2	13	13	81
Greece	0.29	0.33	14	29	26	27	17	22	7	19	19	52
F. R. Germany	10.66	12.54	18	29	8	55	7	2	1	15	15	81
France	5.93	6.41	8	23	11	54	12	9	1	21	21	68
II. "Losers"												
New Zealand	0.32	0.31	-3	31	25	10	34	45	2	34	34	18
Netherlands	4.54	4.49	-1	24	14	41	19	14	11	27	27	49
United Kingdom	5.25	5.24	...	20	17	51	12	7	11	16	16	66
Australia	1.15	1.06	-8	18	57	6	18	38	19	27	27	14
United States	10.23	10.07	-2	11	8	66	15	12	3	13	13	71

Source: Derived from F. Fejnzylber, "International insertion and institutional renewal", CEPAL Review, No. 44, August 1991, Table 2, pp. 142-143.
a/ Favorable competitive position of products and a high relative efficiency of country. b/ An unfavorable competitive position of products and a high relative efficiency of country. c/ A favorable competitive position of products and a low relative efficiency of country. d/ An unfavorable competitive position of products and a low relative efficiency of country.

The US economy was more penetrable, however, the reaction of the United States was rather more combative, as it increasingly relied on unilateral strong-arm tactics ^{40/} as manifest in the US Omnibus Trade and Competitiveness Act of 23 August 1988. This legislation allows the US Government to determine unilaterally what it defines as unfair trade practices and thereby bring to bear heavy pressures on trade partners. Although it is formally stated to be unrelated to the Trade Act, it was shortly after Japan was identified under Section 301 of that Act that the Structural Impediments Initiative began with that government, that is US-Japanese conversations to overcome conflictive aspects of their trade relations. Thus, it results in a quid pro quo approach to bilateral negotiations which undermines the multilateral process. It has also resulted in the growth of product-specific protection in the US market. The Trade Act also reconfirmed an active private sector role in multilateral trade negotiations as well as specific trade remedy laws which flow from the 'bottom-up' process dealing with anti-dumping concerns. ^{41/}

The example of the industrial adjustment of consumer electronics industry, which took place previous to the 1988 Trade Act, demonstrated that the US battery of trade management instruments which included bilateral orderly marketing agreements and simple export quotas was not then sufficient to save the industry. ^{42/} The Trade Act captured the new perspective growing among US TNCs facing import competition, that is, 'strategic' trade policy demanding not simply protection but 'contingent' trade barriers for the home market if foreign markets are protected. ^{43/} It represents a new kind of rearguard action on the trade front by US TNCs in respect of the US-Japan rift and the exigency for industrial restructuring. The US is no longer the world's most enthusiastic champion of free trade and it readily implements regional trade deals, bilateral arrangements, antidumping and countervailing duties and Section 301 actions in its trade relations. ^{44/} None the less, it became clear that if US and European TNCs are to become or remain competitive, it will be by conscious industrial restructuring to improve international competitiveness not by home country trade restrictions or more managed trade in the motor vehicle and parts, semiconductor and machine tools industries or other strategic industries. ^{45/}

ii) Tendencies in Foreign Direct Investment: globalization and regionalism

It is clear that important changes were also taking place in terms of foreign direct investment. Global integration via trade flows was heavily reinforced in the 1980s by foreign direct investment flows. The dynamism of FDI flows was superior to that of international trade and became a new engine of growth. As mentioned, trade restrictions on imports often led to foreign direct investments on the part of the 'aggressor'. The process of transnationalization has produced simultaneous tendencies in terms of globalization and regionalism. It should also be kept in mind that over half of the trade flows of the US and Japan are related to foreign direct investment, that is, they are intra-firm TNC operations. ^{46/} One can conceptualize these tendencies in terms of global strategies on the part of the TNCs, on the one hand, and regional supply or sales networks, on the other. System tension or conflict has also risen due to the changes taking place in terms of global FDI flows.

During the 1980s, the principal developments in terms of foreign direct investments include the following: ^{47/}

- the stock of world foreign direct investment triples to \$1,500 billion up from \$500 billion in 1980.
- the European Economic Community becomes the most important source of foreign investment flows: US\$39 billion annually during 1985-89.
- the US becomes the most important host country for foreign investment: US\$329 billion in 1988.
- the foreign investment of Japan increases six-fold: to US\$111 billion.
- about 80 percent of world investment flows is concentrated in the US, the EEC and Japan.

These characteristics of the foreign investment situation gave rise to the concept of the Triad which first was used to capture the sense of concentration (67%) of world trade in the US, EEC and Japan ^{48/} and now is found to be even more applicable to the concentration (80%) of the outward stocks of world foreign investment in those countries.

According to the UNCTC, World Investment Report, 1991, there is a movement toward parity within the Triad. In the early 1980s, it would have been difficult to characterize the United States, the EEC and Japan as forming a Triad which dominated global foreign direct investment stocks and flows; the role of Japan was then relatively small, and the EEC was too fragmented, more a collection of 12 countries than an integrated regional economy. At that time, the United States was alone the single most important home and host country for foreign direct investment in the world economy. By the end of the 1980s, a Triad has indeed emerged, at least in terms of flow data. Behind this emergence of a tri-polar structure are the rapid growth of outward investment from Japan and

the integration of the EEC, such that the latter now may properly be considered a single Triad member. While by 1990 it appears that the United States and the EEC are jointly the most important Triad members, if current trends continue, the EEC could eventually surpass the importance of the United States as the most important home and host region and Japan could, within the next decade, surpass the importance of United States as a home country, also in terms of stock.

From a strategy point of view, the convergence of intra-Triad foreign direct investment relationships points to the growing importance given to the Triad by TNCs. This strategy, often referred to as "globalization", means that TNCs are increasingly regarding their non-domestic Triad activities to be as important as their home-country operations. The recent strategy of Japanese TNCs to become "regional insiders" in each leg of the Triad is motivated by both efficiency reasons (country specialization and regional economies of scale), as well as by policy considerations (extra-regional tariff and non-tariff barriers). If this strategy, which can be summarized as an obsession with markets rather than profits ^{49/} proves successful, then the question arises as to whether EEC and US TNCs, in order to ensure competitive survival, will also have to adopt a three-legged strategy in each member of the Triad. The incentive to do so will be greater if regional trade blocs are strengthened in Europe, North America and Asia such that achieving "insider" status would be an important competitive advantage to gaining access to those markets.

Against such a scenario, the low level of foreign direct investment into Japan stands out as a striking imbalance. This situation might eventually lead to increased policy pressures on Japan to open its economy to more inward foreign investment from the other two Triad members. It would also be likely that the EEC and, in particular, the United States, would respond to this potential competitive threat to their TNCs by utilizing strategic trade and foreign-direct-investment policy tools, in an attempt to attain a 'level playing field' in bilateral foreign-direct-investment relationships with Japan. ^{50/}

The regional tendencies which have accompanied the global one refer to two distinct phenomena. First, the perspective within the globalizing 'one world' view that its principal components are three--the US, Europe and Japan--and that they require regional considerations. Secondly, the nature of the various supplier and marketing networks that have emerged around each Triad member.

The importance of the regional tendency, in the first sense, is triple. In the first place, globalizing TNCs must develop and implement specific strategies for each major Triad market with regard to product design, marketing, distribution, supply networks, finance, trade and foreign

investment. Aside from dealing with market considerations concerning distinct consumer tastes and with differing Triad regulations on essentially technical topics such as product safety, entrant or expanding non-resident TNCs must deal with potentially conflictive relations with host government rules on finance, trade and foreign investment. 51/ As Agosin and Tussie have noted, hitherto unnoticed differences in institutional practices and relatively small shifts in relative competitiveness can have significant effects on international trade and investment flows. In an era of man-made comparative advantages, locational competition between countries or among regions has emerged as a new and increasingly more contentious form of competition. 52/

In second place, the high technology industries which have become the focus of international competition are not evenly distributed across the Triad or the globe. This means that, in an international context of increased competition within the private sector, Governments inevitably attempt to 'boost' their national or regional champions and make life difficult for their competitors.53/ These measures can range from wholesale government-assisted 'targeting' of other Triad markets (as the Japanese Ministry of International Trade and Industry has done) to simpler government-assisted research and development programs in specific areas (such as the European Strategic Programme for Research in Information Technology--ESPRIT, or the US initiative for semiconductor technology--Sematech). Thus, at an industrial level the business-government interface is an important element in intra-Triad relations.

In third place, the three Triad members have the strongest voices in the definition of the rules of the game with respect to the multilateral system, be that by way of the General Agreement on Trade and Tariffs (GATT), the Organization of Economic Cooperation and Development (OECD), the Bank for International Settlements (BIS) or the United Nations system. Increasingly, national or regional policies on exchange rates, interest rates, import protection, competition, external financing, etc. have tended to converge to a certain degree and were the subject of periodic discussions by the Group of Seven industrialized countries (US, Canada, Germany, France, UK, Italy and Japan). Policy changes by Triad members in these areas could be very disruptive of the existing international macroeconomic situation--witness the decline of the dollar versus the Deutschmark and the Yen since 1985--and TNCs must have the ear of their national governments.

The relevance of the regional tendency within the Triad is that it highlights the importance and differential nature of the TNC/government interface at distinct levels: the corporation, the industry and the country or bloc. That assists in identifying the areas of possible system conflict within the Triad. One major source of possible conflict would be differing US and Japanese sensibilities

related to FDI. For example, the Japanese keiretsu-system essentially keeps outside TNCs from operating successfully in the Japanese market, while Japanese TNCs are seen to be gobbling up US competitors in the United States by way of takeovers and mergers. 54/

Final Considerations

It is convenient now to analyze somewhat the new nature of international competitiveness. A good beginning is to rely less on classical trade-centric theories on comparative advantages of nations according to simple factor endowments and more on the analysis of the new situation from the point of view of the competitive advantage of firms, emphasizing the importance of research and development, innovation and technology. 55/

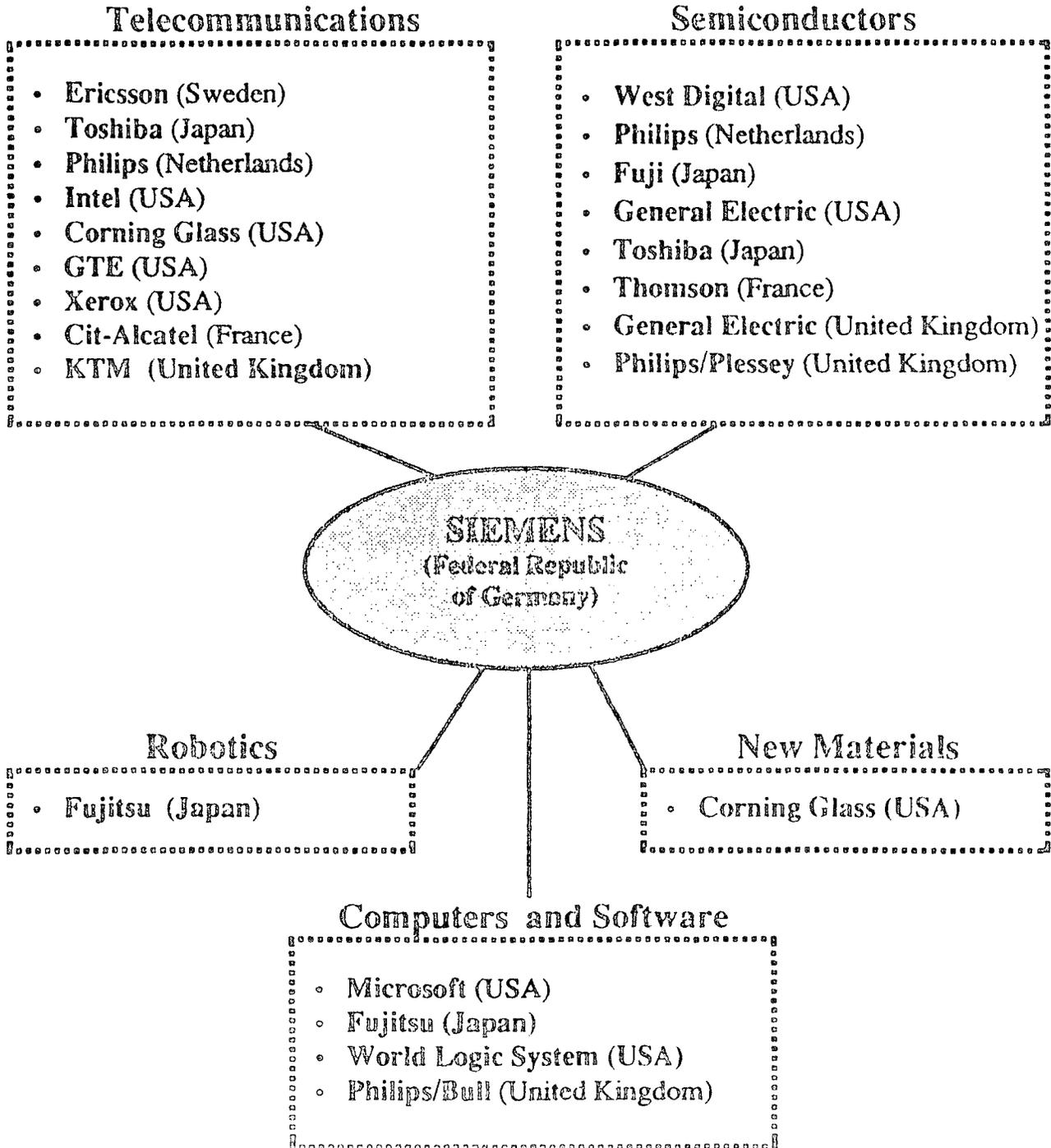
The new situation is most clearly manifest in two separate and distinct areas. First, in strategic and technologically-sophisticated 'leading edge' industries, such as microelectronics, biotechnology, new materials, robots/machine tools, computers/software, telecommunications, etc., competitive advantage is for the most part created by way of huge research and development investments and strategic alliances among advanced-technology TNCs. Siemens is a good example here, as Figure 4 suggests.

Second, for the mature scale-based mass-production industries presently undergoing restructuring, such as automobiles, consumer electronics, textiles, iron and steel, etc., competitive advantage is in large part acquired by a mixture of technological advance and organizational innovation. A UNCTC publication on this subject maintains that the new best-practice manufacturing system has three broad dimensions. The first is technological and relates to the use of flexible, integrated automation technologies in all aspects of firm activities. The second dimension is the incorporation of new management forms and production organization within firms, allowing for attainment of quality and flexibility standards now demanded by the market-place. The third dimension encompasses a new set of relations between firms and their suppliers based on co-operation and trust and reflecting a sharp break with the adversarial relations of the past. ...As the broad outlines and principle features of the new system now are becoming clear, it is likely that they will fundamentally influence international competition and economic development in the coming decades. 56/

This new international competitiveness is also manifest in the increasingly footloose nature of international production by 'global' TNCs 57/ and the growing role of foreign direct investment. 58/

Figure 4

Siemens AG and its main international co-operative agreements,
1984-1987



Source: UNCTC, based on company annual reports and other publicly available documentation.
* Includes joint ventures in R&D and in production, licensing and sub-contracting.

A Group of Thirty report suggests that foreign direct investment now possesses the same potential for increasing growth and efficiency as had international trade in the 1950s and 60s. ^{59/} The increase in outsourcing by TNCs also reflects the global streamlining and/or specialization undertaken by internationally-competitive TNCs.^{60/} In terms of the competitive advantage of nations, Porter points out that it is necessary to specify competitive industries and industrial segments, that the only meaningful measure is productivity and, when all is said and done, a nation's competitiveness depends on the capacity of its industry to innovate and upgrade. ^{61/} Three principal sets of factors identified by Ergas which help explain the differing pace of innovation among countries are i) those that affect the inputs into innovation, such as the quality of a country's scientific base, the presence of research institutions and, above all, its education; ii) those that influence demand, such as receptive and sophisticated customers calling for constant innovation; and, iii) an industrial structure that combined opportunities for intense competition with some mechanism for firms to share the financing and diffusion of scientific research. ^{62/} Fajnzylber suggested that seven relevant indicators on international competitiveness, dealing mainly with exports of manufactures, growth of productivity and research and development expenditures, demonstrated that a comparison of Japan, Germany and the US left Japan in first place, Germany in second place and the US in third place. ^{63/} That seems to adequately reflect most opinions on the subject. It also indicates the central source of system friction.

In summary, available statistics and other information on foreign trade and investment suggests that discernible trends in terms of globalization, specialization and regionalism are setting a new international context for competition. A one world/three poles perspective has helped promote convergence in respect of certain fundamental principles of international relations; however, that tendency has been accompanied by one of increased system tension or friction due to the fact that international competition for the first time is increasingly characterized by a head-to-head struggle for the same industries in the same principal markets rather than the search for market niches. In essence, a thousand or so dominant TNCs are disputing a half dozen technologically-sophisticated industries and another half dozen which are undergoing active restructuring, and are focussed on the US, European and Japanese markets. The situation of the principal actors is not the same. The Japanese and German examples of cooperative managerial capitalism seem to be gaining the upper hand in the international competition with US competitive managerial capitalism. The competitive edge of Japanese and German industrialization is obliging US industry to react, that is, restructure in order to remain competitive. This is a situation qualitatively distinct from the industrial

restructuring that took place in western Europe in the 1950s and apparently will take place in eastern Europe during the 1990s. The situation is complicated and system friction among the dominant countries has been a result.

This is the outline of the new international industrial order in respect of the general situation of increased competition. In the context of a broad consensus on the central features of the contemporary political economy, increased competition among the dominant transnational corporations operating in the more dynamic industries is generating friction and conflict among the governments of the principal industrial countries. It is not at all clear that these governments possess the capacity, the will or the foresight to actively deal with the situation, or if it will be left to unilateral actions, 'the market' or 'business' to resolve. Furthermore, the manner with which this situation is dealt with will have strong consequences for developing countries, which is the subject of Chapter 2.

Notes

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- 4/ UNCTC, "The Process of Transnationalization and Transnational Mergers", UNCTC Current Studies, No. 8, Series A, ST/CTC/SER.A/8, New York, February, 1989.
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- 16/ See Chandler, op. cit., pp. 393-592.

17/ Ozawa, Terutomo, "Japan in a New Phase of Multinationalism and Industrial Upgrading: Functional Integration of Trade, Growth and FDI", Journal of World Trade, (25, 1), February, 1991.

18/ Porter, Michael, "The Competitive Advantage of Nations", Harvard Business Review, (90, 2), March-April, 1990.

19/ It might be mentioned that not all of the most internationally competitive Japanese companies are tied into these six groups. Notable exceptions, for example, are Honda, Matsushita and Sony.

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22/ Business Week, 3 June 1991, pp. 44-52.

23/ Ostry, "Technology and the Global Economy...", op. cit., pp. 4-5.

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25/ "A Survey of World Trade: nothing to lose but its chains", The Economist, 22 September 1990, p. 6.

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28/ "A Survey of America: the old country", The Economist, 26 October 1991.

29/ Dertouzos, Michael L. et al., Made in America: regaining the productive edge, MIT Press, Cambridge, Mass., 1989 and "Is 'Made In America' Fading Away?", Fortune, 24 September 1990.

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38/ Julius, op. cit., p. 12.

39/ Consult Ostry, op.cit., pp. 30-5 and 46-52 and Smeets, op. cit., pp. 67-8.

40/ Commission of the European Communities, Report on United States Trade and Investment Barriers 1992: problems of doing business with the US, Brussels, 1992.

41/ Ostry, ibid., pp. 18-30 and 42-5, as well as Smeets, ibid., pp. 66 and 68-9.

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44/ "Free Trade's Fading Champion", The Economist, 11 April 1992, p.72.

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46/ Dennis Encarnation, in his Rivals Beyond Trade: America versus Japan in Global Competition (Cornell University Press, 1992), argues that Japanese companies dominate bilateral trade both ways between the US and Japan. The high level of Japanese TNC intra-firm trade and the relatively low level of US FDI in Japan are the principal causes of the persistent trade surplus in Japan's favor.

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48/ Ohmae, K., Triad Power: the coming shape of global competition, Free Press, New York, 1985.

49/ According to The Economist ("Japanese Business Methods", 4 April 1992), Japanese pricing reverses western practice. It is standard in the West to specify a product, then add up the costs of its components, including overheads and profit, to arrive at a selling price. Most Japanese companies start with a target market share; they then estimate what price will enable them to reach that share; then they work backwards to push down the cost of everything that goes into the product, until the price is met. This tends not only to drive down costs but (because it makes everyone re-think his bit of the product) to speed up innovation as well.

50/ UNCTC, Triad, *op. cit.*, pp. 43-4.

51/ Consult, for example, UNCTC/UNCTAD, The Impact of Trade-related Investment Measures on Trade and Development: theory, evidence and policy implications, New York, 1991. For an innovative treatment of 'investment-related trade measures, see UNCTC, World Investment Report 1992: Transnational Corporations as Engines of Growth, New York, 1992, Part III, Chapter 11.

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