

Who Is Us?

by Robert B. Reich

Across the United States, you can hear calls for us to revitalize our national competitiveness. But wait —

who is "us"? Is it IBM, Motorola, Whirlpool, and General Motors? Or is it Sony, Thomson, Philips, and Honda?

Consider two successful corporations:

□ Corporation A is headquartered north of New York City. Most of its top managers are citizens of the United States. All of its directors are American citizens, and a majority of its shares are held by American investors. But most of Corporation A's employees are non-Americans. Indeed, the company undertakes much of its R&D and product design, and most of its complex manufacturing, outside the borders of the United States in Asia, Latin America, and Europe. Within the American market, an increasing amount of the company's product comes from its laboratories and factories abroad.

□ Corporation B is headquartered abroad, in another industrialized nation. Most of its top managers and

directors are citizens of that nation, and a majority of its shares are held by citizens of that nation. But most of Corporation B's employees are Americans. Indeed, Corporation B undertakes much of its R&D and new product design in the United States. And it does most of its manufacturing in the U.S. The company ex-

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ports an increasing proportion of its American-based production, some of it even back to the nation where Corporation B is headquartered.

Now, who is "us"? Between these two corporations, which is the American corporation, which the foreign corporation? Which is more important to the economic future of the United States?

As the American economy becomes more globalized, examples of both Corporation A and B are increasing. At the same time, American concern for the competitiveness of the United States is increasing.

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Typically, the assumed vehicle for improving the competitive performance of the United States is the American corporation – by which most people would mean Corporation A. But today, the competitiveness of American-owned corporations is no longer the same as American competitiveness. Indeed, American ownership of the corporation is profoundly less relevant to America's economic future than the skills, training, and knowledge commanded by American workers – workers who are increasingly employed within the United States by foreign-owned corporations.

So who is us? The answer is, the American work force, the American people, but not particularly the American corporation. The implications of this new answer are clear: if we hope to revitalize the competitive performance of the United States economy, we must invest in people, not in nationally defined corporations. We must open our borders to investors from around the world rather than favoring companies that may simply fly the U.S. flag. And government policies should promote human capital in this country rather than assuming that American corporations will invest on "our" behalf. The American corporation is simply no longer "us."

Global Companies

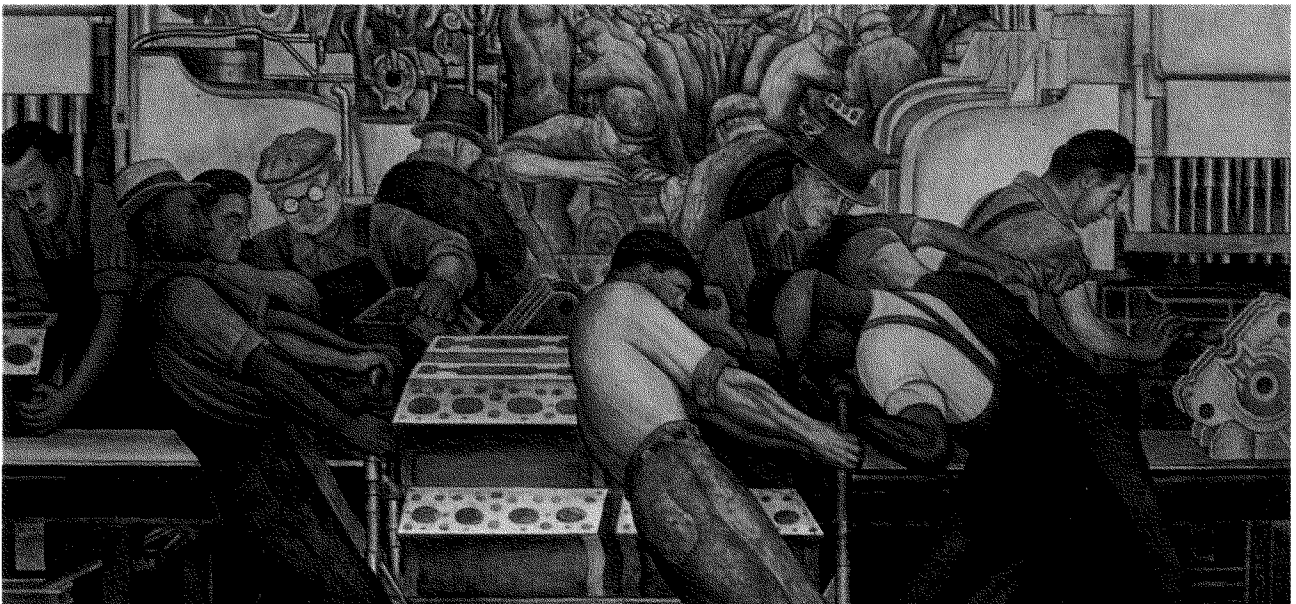
American corporations have been abroad for years, even decades. So in one sense, the multinational identity of American companies is nothing new. What is new is that American-owned multinationals are beginning to employ large numbers of foreigners relative to their American work forces, are beginning

to rely on foreign facilities to do many of their most technologically complex activities, and are beginning to export from their foreign facilities – including bringing products back to the United States.

Around the world, the numbers are already large – and still growing. Take IBM – often considered the thoroughbred of competitive American corporations. Forty percent of IBM's world employees are foreign, and the percentage is increasing. IBM Japan boasts 18,000 Japanese employees and annual sales of more than \$6 billion, making it one of Japan's major exporters of computers.

Or consider Whirlpool. After cutting its American work force by 10% and buying Philips's appliance business, Whirlpool now employs 43,500 people around the world in 45 countries – most of them non-Americans. Another example is Texas Instruments, which now does most of its research, development, design, and manufacturing in East Asia. TI employs over 5,000 people in Japan alone, making advanced semiconductors – almost half of which are exported, many of them back to the United States.

American corporations now employ 11% of the industrial work force of Northern Ireland, making everything from cigarettes to computer software, much of which comes back to the United States. More than 100,000 Singaporeans work for more than 200 U.S. corporations, most of them fabricating and assembling electronic components for export to the United States. Singapore's largest private employer is General Electric, which also accounts for a big share of that nation's growing exports. Taiwan counts AT&T, RCA, and Texas Instruments among its largest exporters. In fact, more than one-third of Taiwan's notorious trade surplus with the United States comes from U.S. corporations making or buying



things there, then selling or using them back in the United States. The same corporate sourcing practice accounts for a substantial share of the U.S. trade imbalance with Singapore, South Korea, and Mexico—raising a question as to whom complaints about trade imbalances should be directed.

The pattern is not confined to America's largest companies. Molex, a suburban Chicago maker of connectors used to link wires in cars and computer boards, with revenues of about \$300 million in 1988,

U.S. companies haven't lost their competitive edge—they've just moved their base of operations.

has 38 overseas factories, 5 in Japan. Loctite, a mid-size company with sales in 1988 of \$457 million, headquartered in Newington, Connecticut, makes and sells adhesives and sealants all over the world. It has 3,500 employees—only 1,200 of whom are Americans. These companies are just part of a much larger trend: according to a 1987 McKinsey & Company study, America's most profitable midsize companies increased their investments in overseas production at an annual rate of 20% between 1981 and 1986.

Overall, the evidence suggests that U.S. companies have not lost their competitive edge over the last 20 years—they've just moved their base of operations. In 1966, American-based multinationals accounted for about 17% of world exports; since then their share has remained almost unchanged. But over the same period, the share of exports from the United States in the world's total trade in manufactures fell from 16% to 14%. In other words, while Americans exported less, the overseas affiliates of U.S.-owned corporations exported more than enough to offset the drop.

The old trend of overseas capital investment is accelerating: U.S. companies increased foreign capital spending by 24% in 1988, 13% in 1989. But even more important, U.S. businesses are now putting substantial sums of money into foreign countries to do R&D work. According to National Science Foundation figures, American corporations increased their overseas R&D spending by 33% between 1986 and 1988, compared with a 6% increase in R&D spending in the United States. Since 1987, Eastman Kodak, W.R. Grace, Du Pont, Merck, and Upjohn have all opened new R&D facilities in Japan. At Du Pont's Yokohama laboratory, more than 180 Japanese scientists and technicians are working at developing new materials technologies. IBM's Tokyo Research Lab, tucked away behind the far side of the Imperial Palace in

downtown Tokyo, houses a small army of Japanese engineers who are perfecting image-processing technology. Another IBM laboratory, the Kanagawa arm of its Yamato Development Laboratory, houses 1,500 researchers who are developing hardware and software. Nor does IBM confine its pioneering work to Japan: recently, two European researchers at IBM's Zurich laboratory announced major breakthroughs into superconductivity and microscopy—earning them both Nobel Prizes.

An even more dramatic development is the arrival of foreign corporations in the United States at a rapidly increasing pace. As recently as 1977, only about 3.5% of the value added and the employment of American manufacturing originated in companies controlled by foreign parents. By 1987, the number had grown to almost 8%. In just the last two years, with the faster pace of foreign acquisitions and investments, the figure is now almost 11%. Foreign-owned companies now employ 3 million Americans, roughly 10% of our manufacturing workers. In fact, in 1989, affiliates of foreign manufacturers created more jobs in the United States than American-owned manufacturing companies.

And these non-U.S. companies are vigorously exporting from the United States. Sony now exports audio- and videotapes to Europe from its Dothan, Alabama factory and ships audio recorders from its Fort Lauderdale, Florida plant. Sharp exports 100,000 microwave ovens a year from its factory in Memphis, Tennessee. Last year, Dutch-owned Philips Consumer Electronics Company exported 1,500 color televisions from its Greenville, Tennessee plant to Japan. Its 1990 target is 30,000 televisions; by 1991, it plans to export 50,000 sets. Toshiba America is sending projection televisions from its Wayne, New Jersey plant to Japan. And by the early 1990s, when Honda annually exports 50,000 cars to Japan from its Ohio production base, it will actually be making more cars in the United States than in Japan.

The New American Corporation

In an economy of increasing global investment, foreign-owned Corporation B, with its R&D and manufacturing presence in the United States and its reliance on American workers, is far more important to America's economic future than American-owned Corporation A, with its platoons of foreign workers. Corporation A may fly the American flag, but Corporation B invests in Americans. Increasingly, the competitiveness of American workers is a more important definition of "American competitive-

How Foreign-Owned Businesses Can

What kind of foreign-owned businesses really contribute to national competitiveness? Actually, there are four models to consider, each doing business at a different level of complexity and local intellectual content: importers, assemblers, plant complexes, and fully integrated business operations. For those complex discrete manufacturing businesses such as electronics and automobiles that are at the heart of trade concerns, it is only fully integrated operations that build the local skill base and infrastructure in ways that increase international competitiveness and consequently raise living standards. They do so by bringing in-country the essential engine of business competitiveness.

The Matsushita consumer electronics complex at Kadoma, Japan demonstrates the importance of a fully integrated operation. All four key intellectual elements of the television and videocassette recorder (VCR) product and production systems—product design, manufacturing, process engineering, and vendor management—take place there. Although many components are outsourced, these key intellectual elements are “insourced” at Kadoma so they can be tightly integrated and optimized. Matsushita even builds most of its manufacturing equipment. Mech decks, the highly complex head and tape transport assemblies for VCRs, are assembled by Matsushita robots.

This tight integration enables Matsushita to raise quality, reduce labor hours, provide a high level of product variety to the market, and rapidly incorporate new technology into new products. The mech decks are designed so that every part can be assembled with a simple vertical motion, which facili-

tates 100% assembly automation and high process reliability. This “producible design,” which can only be accomplished when there is close teamwork among product designers, process designers, component vendors, and manufacturing managers, in part explains why Matsushita has been able to maintain a leading competitive position worldwide despite the yen shock.

Typical importing and assembly operations are at the opposite end of the scale. Importing companies limit local economic activity to sales, marketing, and distribution; their aim is to win local market share and broaden the business base for an engine of competitiveness located offshore. (We use the term “local” to mean activity carried out in the host country.) Assemblers, a category that includes the U.S. organizations of many Asian-owned consumer electronics companies, make products locally, using designs, processes, and management approaches developed in the home country. They may buy some components locally, but they are likely to import key components, and all the sourcing decisions are made in the home country. As a result, it is difficult for local companies to become suppliers, and the most important supply positions often go to local subsidiaries of home-country suppliers.

Plant complexes add a further level of value added and begin to add intellectual content. Typically, a complex will fabricate product components, and the amount of local engineering content increases. Examples in the United States include the Nissan complex in Smyrna, Tennessee, which makes its own transmissions and transaxels, and the Sony television complex in San Diego, California, which

ness” than the competitiveness of American companies. Issues of ownership, control, and national origin are less important factors in thinking through the logic of “who is us” and the implications of the answer for national policy and direction.

Ownership is less important. Those who favor American-owned Corporation A (that produces overseas) over foreign-owned Corporation B (that produces here) might argue that American ownership generates a stream of earnings for the nation’s citizens. This argument is correct, as far as it goes. American shareholders do, of course, benefit from the global successes of American corporations to the extent that such successes are reflected in higher share prices. And the entire U.S. economy benefits to the extent that the overseas profits of American companies are remitted to the United States.

But American investors also benefit from the successes of non-American companies in which Americans own a minority interest—just as foreign citizens benefit from the successes of American companies in which they own a minority interest, and such cross-ownership is on the increase as national restrictions on foreign ownership fall by the wayside. In 1989, cross-border equity investments by Americans, British, Japanese, and West Germans increased 20%, by value, over 1988.

The point is that in today’s global economy, the total return to Americans from their equity investments is not solely a matter of the success of particular companies in which Americans happen to have a controlling interest. The return depends on the total amount of American savings invested in global portfolios comprising both American and

Contribute to U.S. Competitiveness

makes its own tubes and (together with other Sony operations in California) has a significant engineering force. Still, a plant complex falls well short of a fully integrated business operation. The key intellectual elements of the product and production system are still in the home country, even if the distinctions are becoming more subtle. High-resolution tubes for computer monitors and jumbo television tubes that drive the product and process technology are made at Sony's lead plant in Inazawa, Japan. The U.S. plant makes more mature products.

Assembly operations and plant complexes (particularly the latter) look good on simple economic measures. They employ many assembly workers and some middle managers and engineers. They also can help with catch-up in weak areas of management skills: the GM-Toyota NUMMI plant in California, for example, has shown U.S. managers that management approach rather than automation accounts for much of the Japanese advantage in assembly productivity. These operations cannot bring the host country to the forefront of competitiveness, however, because the engine of competitiveness remains offshore. Thus they do not upgrade the local skill base and technology infrastructure to world leader status, they won't attract the best young managers and engineers, and they are unlikely to stimulate the creative work that spins off new businesses (the "Silicon Valley effect").

The real payoff from local operations for foreign-owned companies, then, comes in the form of fully integrated business operations—when product design, process design, manufacturing, and vendor management are co-located and tightly integrated

in-country and the operation is set up to do business in the global market. In this fully integrated operation, the span of activities closely resembles similar operations in the home country.

Examples of fully integrated operations in the United States include the consumer electronics businesses of Philips and Thomson (which were built from acquired companies) and, increasingly, Honda's automobile business. These companies appear to have made commitments to devolve *whole product lines* to their U.S. subsidiaries. The new Honda Accord Coupe, for example, was designed and is made only in the United States and is exported in small quantities to Japan. Likewise, U.S. multinational companies have built many successful fully integrated operations in other parts of the world, for example, IBM's, TI's, and GE Plastics's operations in Japan, Hewlett-Packard's in Singapore, and Ford's in Europe.

The foreign-owned businesses that benefit national competitiveness most are those that commit their engine of competitiveness to the host country. When foreign-owned companies come only to win local market share, they add little to the host country's competitiveness. When they come to build a platform to compete in global markets, then they contribute to national competitiveness.

—Todd Hixon and Ranch Kimball

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foreign-owned companies—and on the care and wisdom with which American investors select such portfolios. Already Americans invest 10% of their portfolios in foreign securities; a recent study by Salomon Brothers predicts that it will be 15% in a few years. U.S. pension managers surveyed said that they predict 25% of their portfolios will be in foreign-owned companies within 10 years.

Control is less important. Another argument marshaled in favor of Corporation A might be that because Corporation A is controlled by Americans, it will act in the best interests of the United States. Corporation B, a foreign national, might not do so—indeed, it might act in the best interests of its nation of origin. The argument might go something like this: even if Corporation B is now hiring more Americans and giving them better jobs than Corporation

A, we can't be assured that it will continue to do so. It might bias its strategy to reduce American competitiveness; it might even suddenly withdraw its investment from the United States and leave us stranded.

But this argument makes a false assumption about American companies—namely, that they are in a position to put national interests ahead of company or shareholder interests. To the contrary: managers of American-owned companies who sacrificed profits for the sake of national goals would make themselves vulnerable to a takeover or liable for a breach of fiduciary responsibility to their shareholders. American managers are among the loudest in the world to declare that their job is to maximize shareholder returns—not to advance national goals.

Apart from wartime or other national emergencies, American-owned companies are under no spe-

cial obligation to serve national goals. Nor does our system alert American managers to the existence of such goals, impose on American managers unique requirements to meet them, offer special incentives to achieve them, or create measures to keep American managers accountable for accomplishing them. Were American managers knowingly to sacrifice profits for the sake of presumed national goals, they would be acting without authority, on the basis of their own views of what such goals might be, and without accountability to shareholders or to the public.

Obviously, this does not preclude American-owned companies from displaying their good corporate citizenship or having a sense of social responsibility. Sensible managers recognize that acting "in the public interest" can boost the company's image; charitable or patriotic acts can be good business if they promote long-term profitability. But in this regard, American companies have no particular edge over foreign-owned companies doing business in the United States. In fact, there is every reason to believe that a foreign-owned company would be even more eager to demonstrate to the American public its good citizenship in America than would the average American company. The American subsidiaries of Hitachi, Matsushita, Siemens, Thomson, and many other foreign-owned companies lose no opportunity to contribute funds to American charities, sponsor community events, and support public libraries, universities, schools, and other institutions. (In 1988, for example, Japanese companies operating in the United States donated an estimated \$200 million to American charities; by 1994, it is estimated that their contributions will total \$1 billion.)¹

By the same token, American-owned businesses operating abroad feel a similar compulsion to act as good citizens in their host countries. They cannot afford to be seen as promoting American interests; otherwise they would jeopardize their relationships with foreign workers, consumers, and governments. Some of America's top managers have been quite explicit on this point. "IBM cannot be a net exporter from every nation in which it does business," said Jack Kuehler, IBM's new president. "We have to be a good citizen everywhere." Robert W. Galvin, chairman of Motorola, is even more blunt: should it become necessary for Motorola to close some of its factories, it would not close its Southeast Asian plants before it closed its American ones. "We need our Far Eastern customers," says Galvin, "and we cannot alienate the Malaysians. We must treat our employees all over the world equally." In fact, when it becomes necessary to reduce global capacity, we might expect American-owned businesses to slash more jobs in the United States than in Europe (where

labor laws often prohibit precipitous layoffs) or in Japan (where national norms discourage it).

Just as empty is the concern that a foreign-owned company might leave the United States stranded by suddenly abandoning its U.S. operation. The typical argument suggests that a foreign-owned company might withdraw for either profit or foreign policy motives. But either way, the bricks and mortar would still be here. So would the equipment. So too would be the accumulated learning among American workers. Under such circumstances, capital from an-

A nation's most important competitive asset is the skills and learning of its work force.

other source would fill the void; an American (or other foreign) company would simply purchase the empty facilities. And most important, the American work force would remain, with the critical skills and capabilities, ready to go back to work.

After all, the American government and the American people maintain jurisdiction—political control—over assets within the United States. Unlike foreign assets held by American-owned companies that are subject to foreign political control and, occasionally, foreign expropriation, foreign-owned assets in the United States are secure against sudden changes in foreign governments' policies. This not only serves as an attraction for foreign capital looking for a secure haven; it also benefits the American work force.

Work force skills are critical. As every advanced economy becomes global, a nation's most important competitive asset becomes the skills and cumulative learning of its work force. Consequently, the most important issue with regard to global corporations is whether and to what extent they provide Americans with the training and experience that enable them to add greater value to the world economy. Whether the company happens to be headquartered in the United States or the United Kingdom is fundamentally unimportant. The company is a good "American" corporation if it equips its American work force to compete in the global economy.

Globalization, almost by definition, makes this true. Every factor of production other than work

1. Craig Smith, editor of *Corporate Philanthropy Report*, quoted in *Chronicle of Higher Education*, November 8, 1989, p. A-34.

2. Bureau of Economic Analysis, *Foreign Direct Investment in the U.S.: Operations of U.S. Affiliates, Preliminary 1986 Estimates* (Washington, D.C.: U.S. Department of Commerce, 1988) for data on foreign companies; Bureau of the Census, *Annual Survey of Manufactures: Statistics for Industry Groups and Industries, 1986* (Washington, D.C., 1987) for U.S. companies.

force skills can be duplicated anywhere around the world. Capital now sloshes freely across international boundaries, so much so that the cost of capital in different countries is rapidly converging. State-of-the-art factories can be erected anywhere. The latest technologies flow from computers in one nation, up to satellites parked in space, then back down to computers in another nation—all at the speed of electronic impulses. It is all fungible: capital, technology, raw materials, information—all, except for one thing, the most critical part, the one element that is unique about a nation: its work force.

In fact, because all of the other factors can move so easily any place on earth, a work force that is knowledgeable and skilled at doing complex things attracts foreign investment. The relationship forms a virtuous circle: well-trained workers attract global corporations, which invest and give the workers good jobs; the good jobs, in turn, generate additional training and experience. As skills move upward and experience accumulates, a nation's citizens add greater and greater value to the world—and command greater and greater compensation from the world, improving the country's standard of living.

Foreign-owned corporations help American workers add value. When foreign-owned companies come to the United States, they frequently bring with them approaches to doing business that improve American productivity and allow American workers to add more value to the world economy. In fact, they come here primarily because they can be more productive in the United States than can other American rivals. It is not solely America's mounting external indebtedness and relatively low dollar that account for the rising level of foreign investment in the United States. Actual growth of foreign investment in the United States dates from the mid-1970s rather than from the onset of the large current account deficit in 1982. Moreover, the two leading foreign investors in the United States are the British and the Dutch—not the Japanese and the West Germans, whose enormous surpluses are the counterparts of our current account deficit.

For example, after Japan's Bridgestone tire company took over Firestone, productivity increased dramatically. The joint venture between Toyota and General Motors at Fremont, California is a similar story: Toyota's managerial system took many of the same workers from what had been a deeply troubled GM plant and turned it into a model facility, with upgraded productivity and skill levels.

In case after case, foreign companies set up or buy up operations in the United States to utilize their corporate assets with the American work force. Foreign-owned businesses with better design capabilities,

production techniques, or managerial skills are able to displace American companies on American soil precisely because those businesses are more productive. And in the process of supplanting the American company, the foreign-owned operation can transfer the superior know-how to its American work force—giving American workers the tools they need to be more productive, more skilled, and more competitive. Thus foreign companies create good jobs in the United States. In 1986 (the last date for which such data are available), the average American employee of a foreign-owned manufacturing company earned \$32,887, while the average American employee of an American-owned manufacturer earned \$28,954.²

This process is precisely what happened in Europe in the 1950s and 1960s. Europeans publicly fretted about the invasion of American-owned multinationals and the onset of "the American challenge." But the net result of these operations in Europe has been to make Europeans more productive, upgrade European skills, and thus enhance the standard of living of Europeans.

Now Who Is Us?

American competitiveness can best be defined as the capacity of Americans to add value to the world economy and thereby gain a higher standard of living in the future without going into ever deeper debt. American competitiveness is not the profitability or market share of American-owned corporations. In fact, because the American-owned corporation is coming to have no special relationship with Americans, it makes no sense for Americans to entrust our national competitiveness to it. The interests of American-owned corporations may or may not coincide with those of the American people.

Does this mean that we should simply entrust our national competitiveness to any corporation that employs Americans, regardless of the nationality of corporate ownership? Not entirely. Some foreign-owned corporations are closely tied to their nation's economic development—either through direct public ownership (for example, Airbus Industrie, a joint product of Britain, France, West Germany, and Spain, created to compete in the commercial airline industry) or through financial intermediaries within the nation that, in turn, are tied to central banks and ministries of finance (in particular the model used by many Korean and Japanese corporations). The primary goals of such corporations are to enhance the wealth of their nations, and the standard of living of their nations' citizens, rather than to enrich their

shareholders. Thus, even though they might employ American citizens in their worldwide operations, they may employ fewer Americans—or give Americans lower value-added jobs—than they would if these corporations were intent simply on maximizing their own profits.³

On the other hand, it seems doubtful that we could ever shift the goals and orientations of American-owned corporations in this same direction—away

National policies should reward any global corporation that invests in the American work force.

from profit maximization and toward the development of the American work force. There is no reason to suppose that American managers and shareholders would accept new regulations and oversight mechanisms that forced them to sacrifice profits for the sake of building human capital in the United States. Nor is it clear that the American system of government would be capable of such detailed oversight.

The only practical answer lies in developing national policies that reward *any* global corporation that invests in the American work force. In a whole set of public policy areas, involving trade, publicly supported R&D, antitrust, foreign direct investment, and public and private investment, the overriding goal should be to induce global corporations to build human capital in America.

Trade policy. We should be less interested in opening foreign markets to American-owned companies (which may in fact be doing much of their production overseas) than in opening those markets to companies that employ Americans—even if they happen to be foreign-owned. But so far, American trade policy experts have focused on representing the interests of companies that happen to carry the American flag—without regard to where the actual production is being done. For example, the United States recently accused Japan of excluding Motorola from the lucrative Tokyo market for cellular telephones and hinted at retaliation. But Motorola designs and makes many of its cellular telephones in Kuala Lumpur, while most of the Americans who make cellular telephone equipment in the United States for export to Japan happen to work for Japanese-owned companies. Thus we are wasting our scarce political capital pushing foreign governments to reduce barriers to American-owned companies that are seeking to sell or produce in their market.

Once we acknowledge that foreign-owned Corporation B may offer more to American competitiveness than American-owned Corporation A, it is easy to design a preferable trade policy—one that accords more directly with our true national interests. The highest priority for American trade policy should be to discourage other governments from invoking domestic content rules—which have the effect of forcing global corporations, American and foreign-owned alike, to locate production facilities in those countries rather than in the United States.

The objection here to local content rules is not that they may jeopardize the competitiveness of American companies operating abroad. Rather, it is that these requirements, by their very nature, deprive the American work force of the opportunity to compete for jobs, and with those jobs, for valuable skills, knowledge, and experience. Take, for example, the recently promulgated European Community nonbinding rule on television-program production, which urges European television stations to devote a majority of their air time to programs made in Europe. Or consider the European allegations of Japanese dumping of office machines containing semiconductors, which has forced Japan to put at least 45% European content into machines sold in Europe (and thus fewer American-made semiconductor chips).

Obviously, U.S.-owned companies are already inside the EC producing both semiconductors and television programs. So if we were to adopt American-owned Corporation A as the model for America's competitive self-interest, our trade policy might simply ignore these EC initiatives. But through the lens of a trade policy focused on the American work force, it is clear how the EC thwarts the abilities of Americans to excel in semiconductor fabrication and filmmaking—two areas where our work force already enjoys a substantial competitive advantage.

Lack of access by American-owned corporations to foreign markets is, of course, a problem. But it only becomes a crucial problem for America to the extent that both American and foreign-owned companies must make products within the foreign market—products that they otherwise would have made in the United States. Protection that acts as a domestic content requirement skews investment away from the United States—and away from U.S. workers. Fighting against that should be among the highest priorities of U.S. trade policy.

Publicly supported R&D. Increased global competition, the high costs of research, the rapid rate of change in science and technology, the model of Japan

3. Robert B. Reich and Eric D. Mankin, "Joint Ventures with Japan Give Away Our Future," HBR March-April 1986, p. 78.

with its government-supported commercial technology investments—all of these factors have combined to make this area particularly critical for thoughtful public policy. But there is no reason why preference should be given to American-owned companies. Dominated by our preoccupation with American-owned Corporation A, current public policy in this area limits U.S. government-funded research grants, guaranteed loans, or access to the fruits of U.S. government-funded research to American-owned companies. For example, membership in Sematech, the research consortium started two years ago with \$100 billion annual support payments by the Department of Defense to help American corporations fabricate complex memory chips, is limited to American-owned companies. More recently, a government effort to create a consortium of companies to catapult the United States into the HDTV compe-

Should Sony, Philips, and Thomson be eligible to participate in the HDTV consortium—with their American workers?

tion has drawn a narrow circle of eligibility, ruling out companies such as Sony, Philips, and Thomson that do R&D and production in the United States but are foreign-owned. More generally, long-standing regulations covering the more than 600 government laboratories and research centers that are spread around the United States ban all but American-owned companies from licensing inventions developed at these sites.

Of course, the problem with this policy approach is that it ignores the reality of global American corporations. Most U.S.-owned companies are quite happy to receive special advantages from the U.S. government—and then spread the technological benefits to their affiliates all over the world. As Sematech gets under way, its members are busily going global: Texas Instruments is building a new \$250 million semiconductor fabrication plant in Taiwan; by 1992, the facility will produce four-megabit memory chips and custom-made, application-specific integrated circuits—some of the most advanced chips made anywhere. TI has also joined with Hitachi to design and produce a super chip that will store 16 million bits of data. Motorola, meanwhile, has paired with Toshiba to research and produce a similar generation of futurist chips. Not to be outdone, AT&T has a commitment to build a state-of-the-art chip-

making plant in Spain. So who will be making advanced chips in the United States? In June 1989, Japanese-owned NEC announced plans to build a \$400 million facility in Rosedale, California for making four-megabit memory chips and other advanced devices not yet in production anywhere.

The same situation applies to HDTV. Zenith Electronics is the only remaining American-owned television manufacturer, and thus the only one eligible for a government subsidy. Zenith employs 2,500 Americans. But there are over 15,000 Americans employed in the television industry who do not work for Zenith—undertaking R&D, engineering, and high-quality manufacturing. They work in the United States for foreign-owned companies: Sony, Philips, Thomson, and others (see the accompanying table). Of course, none of these companies is presently eligible to participate in the United States's HDTV consortium—nor are their American employees.

Again, if we follow the logic of Corporation B as the more "American" company, it suggests a straightforward principle for publicly supported R&D: we should be less interested in helping *American-owned companies* become technologically sophisticated than in helping *Americans* become technologically sophisticated. Government-financed help for research and development should be available to any corporation, regardless of the nationality of its owners, as long as the company undertakes the R&D in the United States—using American scientists, engineers, and technicians. To make the link more explicit, there could even be a relationship between the number of Americans involved in the R&D and the amount of government aid forthcoming. It is important to note that this kind of public-private bargain is far different from protectionist domestic content requirements. In this case, the government is participating with direct funding and thus can legitimately exact a quid pro quo from the private sector.

Antitrust policy. The Justice Department is now in the process of responding to the inevitability of globalization; it recognizes that North American market share alone means less and less in a global economy. Consequently, the Justice Department is about to relax antitrust policy—for American-owned companies only. American-owned companies that previously kept each other at arm's length for fear of prompting an inquiry into whether they were colluding are now cozying up to one another. Current antitrust policy permits research joint ventures; the attorney general is on the verge of recommending that antitrust policy permit joint production agreements as well, when there may be significant economies of scale and where competition is global—again, among American-owned companies.

But here again, American policy seems myopic. We should be less interested in helping American-owned companies gain economies of scale in research, production, and other key areas, and more interested in helping corporations engaged in research or production within the United States achieve economies of scale—regardless of their nationality. U.S. antitrust policy should allow research or production joint ventures among any companies doing R&D or production within the United States, as long as they can meet three tests: they could not gain such scale efficiencies on their own, simply by enlarging their investment in the United States; such a combination of companies would allow higher levels of productivity within the United States; and the combination would not substantially diminish global competition. National origin should not be a factor.

Foreign direct investment. Foreign direct investment has been climbing dramatically in the United States: last year it reached \$329 billion, exceeding total American investment abroad for the first time since World War I (but be careful with these figures, since investments are valued at cost and this substantially understates the worth of older invest-

ments). How should we respond to this influx of foreign capital?

Clearly, the choice between Corporation A and Corporation B has important implications. If we are most concerned about the viability of American-owned corporations, then we should put obstacles in the way of foreigners seeking to buy controlling shares in American-owned companies, or looking to build American production facilities that would compete with American-owned companies.

Indeed, current policies tilt in this direction. For example, under the so-called Exon-Florio Amendment of the Omnibus Trade and Competitiveness Act of 1988, foreign investors must get formal approval from the high-level Committee on Foreign Investments in the United States, comprising the heads of eight federal agencies and chaired by the secretary of the treasury, before they can purchase an American company. The expressed purpose of the law is to make sure that a careful check is done to keep “national security” industries from passing into the hands of foreigners. But the law does not define what “national security” means: thus it invites all sorts of potential delays and challenges. The actual effect is

U.S. TV Set Production, 1988

<i>Company Name</i>	<i>Plant Type</i>	<i>Location</i>	<i>Employees</i>	<i>Annual Production</i>
Bang & Olufsen	Assembly	Compton, Calif.	n.a. [†]	n.a.
Goldstar	Total*	Huntsville, Ala.	400	1,000,000
Harvey Industries	Assembly	Athens, Tex.	900	600,000
Hitachi	Total	Anaheim, Calif.	900	360,000
JVC	Total	Elmwood Park, N.J.	100	480,000
Matsushita	Assembly	Franklin Park, Ill.	800	1,000,000
American Kotobuki (Matsushita)	Assembly	Vancouver, Wash.	200	n.a.
Mitsubishi	Assembly	Santa Ana, Calif.	550	400,000
Mitsubishi	Total	Braselton, Ga.	300	285,000
NEC	Assembly	McDonough, Ga.	400	240,000
Orion	Assembly	Princeton, Ind.	250	n.a.
Philips	Total	Greenville, Tenn.	3,200	2,000,000+
Samsung	Total	Saddle Brook, N.J.	250	1,000,000
Sanyo	Assembly	Forrest City, Ark.	400	1,000,000
Sharp	Assembly	Memphis, Tenn.	770	1,100,000
Sony	Total	San Diego, Calif.	1,500	1,000,000
Tatung	Assembly	Long Beach, Calif.	130	17,500
Thomson	Total	Bloomington, Ind.	1,766	3,000,000+
Thomson	Components	Indianapolis, Ind.	1,604	n.a.
Toshiba	Assembly	Lebanon, Tenn.	600	900,000
Zenith	Total	Springfield, Mo.	2,500	n.a.

*Total manufacturing involves more than the assembling of knocked-down kits. Plants that manufacture just the television cabinets are not included in this list. [†]Not available.

Source: Electronic Industries Association, HDTV Information Center, Washington, D.C.

to send a message that we do not look with favor on the purchase of American-owned assets by foreigners. Other would-be pieces of legislation send the same signal. In July 1989, for instance, the House Ways and Means Committee voted to apply a withholding capital gains tax to foreigners who own more than 10% of a company's shares. Another provision of the committee would scrap tax deductibility for interest on loans made by foreign parents to their American subsidiaries. A third measure would limit R&D tax credits for foreign subsidiaries. More re-

The federal government has been cutting back on the investments that are critical for America's competitive future.

cently, Congress is becoming increasingly concerned about foreign takeovers of American airlines. A subcommittee of the House Commerce Committee has voted to give the Transportation Department authority to block foreign acquisitions.

These policies make little sense—in fact, they are counterproductive. Our primary concern should be the training and development of the American work force, not the protection of the American-owned corporation. Thus we should encourage, not discourage, foreign direct investment. Experience shows that foreign-owned companies usually displace American-owned companies in just those industries where the foreign businesses are simply more productive. No wonder America's governors spend a lot of time and energy promoting their states to foreign investors and offer big subsidies to foreign companies to locate in their states, even if they compete head-on with existing American-owned businesses.

Public and private investment. The current obsession with the federal budget deficit obscures a final, crucial aspect of the choice between Corporation A and Corporation B. Conventional wisdom holds that government expenditures “crowd out” private investment, making it more difficult and costly for American-owned companies to get the capital they need. According to this logic, we may have to cut back on public expenditures in order to provide American-owned companies with the necessary capital to make investments in plant and equipment.

But the reverse may actually be the case—particularly if Corporation B is really more in America's competitive interests than Corporation A. There are a number of reasons why this is true.

First, in the global economy, America's public expenditures don't reduce the amount of money left

over for private investment in the United States. Today capital flows freely across national borders—including a disproportionately large inflow to the United States. Not only are foreign savings coming to the United States, but America's private savings are finding their way all over the world. Sometimes the vehicle is the far-flung operations of a global American-owned company, sometimes a company in which foreigners own a majority stake. But the old notion of national boundaries is becoming obsolete. Moreover, as I have stressed, it is a mistake to associate these foreign investments by American-owned companies with any result that improves the competitiveness of the United States. There is simply no necessary connection between the two.

There is, however, a connection between the kinds of investments that the public sector makes and the competitiveness of the American work force. Remember: a work force that is knowledgeable and skilled at doing complex things attracts foreign investment in good jobs, which in turn generates additional training and experience. A good infrastructure of transportation and communication makes a skilled work force even more attractive. The public sector often is in the best position to make these sorts of “pump priming” investments—in education, training and retraining, research and development, and in all of the infrastructure that moves people and goods and facilitates communication. These are the investments that distinguish one nation from another—they are the relatively nonmobile factors in the global competition. Ironically, we do not ordinarily think of these expenditures as investments; the federal budget fails to distinguish between a capital and an operating budget, and the national income accounts treat all government expenditures as consumption. But without doubt, these are precisely the investments that most directly affect our future capacity to compete.

During the 1980s, we allowed the level of these public investments either to remain stable or, in some cases, to decline. As America enters the 1990s, if we hope to launch a new campaign for American competitiveness, we must substantially increase public funding in the following areas:

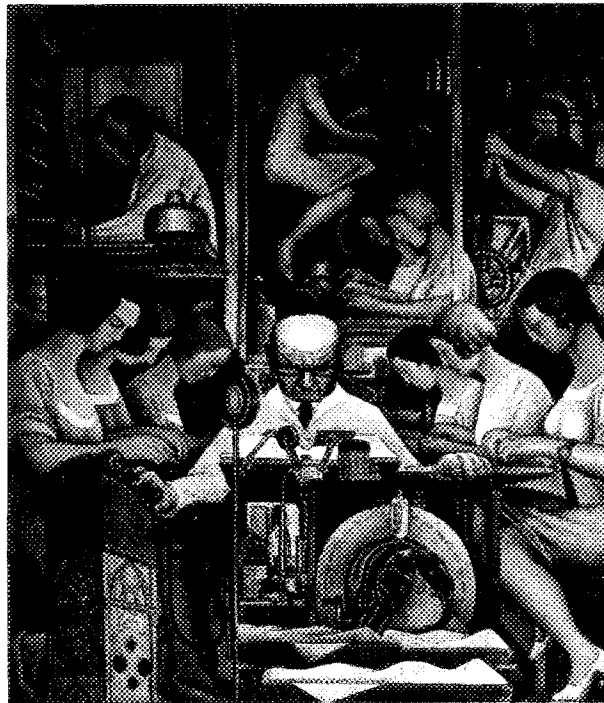
□ *Government spending on commercial R&D.* Current spending in this critical area has declined 95% from its level two decades ago. Even as late as 1980, it comprised .8% of gross national product; today it comprises only .4%—a much smaller percentage than in any other advanced economy.

□ *Government spending to upgrade and expand the nation's infrastructure.* Public investment in critical highways, roads, bridges, ports, airports, and waterways dropped from 2.3% of GNP two decades ago to

1.3% in the 1980s. Thus many of our bridges are unsafe, and our highways are crumbling.


□ *Expenditures on public elementary and secondary education.* These have increased, to be sure. But in inflation-adjusted terms, per pupil spending has shown little gain. Between 1959 and 1971, spending per student grew at a brisk 4.7% in real terms—more than a full percentage point above the increase in the GNP—and teachers' salaries increased almost 3% a year. But since then, growth has slowed. Worse, this has happened during an era when the demands on public education have significantly increased, due to the growing incidence of broken homes, unwed mothers, and a rising population of the poor. Teachers' salaries, adjusted for inflation, are only a bit higher than they were in

1971. Despite the rhetoric, the federal government has all but retreated from the field of education. In fact, George Bush's 1990 education budget is actually smaller than Ronald Reagan's in 1989. States and municipalities, already staggering under the weight of social services that have been shifted onto them from the federal government, simply cannot carry this additional load. The result of this policy gap is a national education crisis: one out of five American 18-year-olds is illiterate, and in test after test, American schoolchildren rank at the bottom of international scores. Investing more money here may not be a cure-all—but money is at least necessary.



□ *College opportunity for all Americans.* Because of government cutbacks, many young people in the United States with enough talent to go to college cannot afford it. During the 1980s, college tuitions rose 26%; family incomes rose a scant 5%. Instead of filling the gap, the federal government created a vacuum: guaranteed student loans have fallen by 13% in real terms since 1980.

□ *Worker training and re-training.* Young people who cannot or do not wish to attend college need training for jobs that are becoming more complex. Older workers need re-training to keep up with the demands of a rapidly changing, technologically advanced workplace. But over the last eight years, federal investments in worker training have dropped by more than 50%.

These are the priorities of an American strategy for national competitiveness—a strategy based more on the value of human capital and less on the value of financial capital. The simple fact of American ownership has lost its relevance to America's economic future. Corporations that invest in the United States, that build the value of the American work force, are more critical to our future standard of living than are American-owned corporations investing abroad. To attract and keep them, we need public investments that make America a good place for any global corporation seeking talented workers to set up shop. 

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