
ALTERNATIVES

Industrial Evolution

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Industrial evolution, like its biological counterpart, depends on adaptation. Economies brimming with new ideas, new skills, and new ways of accomplishing things invariably grow and prosper; this growth in turn encourages more innovation and change, since resources can shift relatively easily to the new activities. Businesses whose profits are threatened can find new sources of income, workers whose jobs are in jeopardy can find new employment, and communities whose major industries are failing can attract new industry.

But this virtuous circle has a vicious correlate. Economies whose growth slows down—absolutely or relative to a new and faster adaptor elsewhere—may become less flexible. Resources no longer shift as easily to new activities since fewer profitable alternatives are available. It is hardly surprising that such economic declines often are accompanied by collective refusals to alter old ways. But such attempts to preserve the past merely accelerate the decline.

History is filled with examples of such declines: Byzantine ship owners and merchants of the thirteenth and fourteenth centuries who refused to acknowledge the innovations appearing among their new Italian competitors; Italian manufacturers of the seventeenth century, confronted with new products and processes from Holland, who were by then too set in their ways to adapt; Dutch traders and manufacturers of the eighteenth century who lost their lead to the English in maritime cartography, navigational techniques, and textiles, largely because their businesses had become too rigid and their society too conservative to embrace the new ideas; British industrialists of the late nineteenth century who gradually were overtaken by more flexible and innovative American manufacturers. All these relative declines were accompanied by social rigidities, as those whose wealth was threatened sought to maintain their positions of privilege: late Byzantium was notorious for its elaborate system of castes and guilds; the declining Spanish empire featured complex hierarchies of soldiers and aristocrats; eighteenth-century Naples, having lost its commercial and industrial center, was inhabited by 500,000 people, of whom 100,000 were homeless beggars, 20,000 were soldiers, and 30,000 were lawyers; Holland's decline was marked by a conservative and foppish periwig dynasty; and Britain's slide into the twen-

tieth century saw the rise of a banking and financial elite in contrast to the emergence of a large, insular, and disaffected working class.

In recent years the United States, along with every other major industrialized nation, has experienced slower economic growth, but America's relative decline has been sharper than the rest. In the period 1960 to 1973, the annual growth in America's real gross national product per employed person averaged 1.8 percent; between 1974 and 1978, the average annual growth dropped to .1 percent. Japan went from 8.9 percent growth in the first period to 3.2 in the second; West Germany dropped from 4.7 percent to 3 percent; France, from 4.5 percent to 3 percent; and Britain, from 3.2 percent to .8 percent. Since 1978, things have grown worse all over, culminating in a brutal recession that has thrown some ten million people out of work in western Europe and has slowed Japanese growth to a crawl; but the United States has experienced worse unemployment and slower growth than Japan, West Germany, or France.

The cause of this worldwide decline has variously been attributed to the surges in world oil prices during the 1970s and the gradual depletion of global resources; the end of labor migration from the farms; government policies designed to curb inflation and simultaneously protect public health, safety, and the environment; the growing expense of government. But none of these supposed explanations reveals why America's ordeal has been especially difficult and the nation's relative decline so precipitous. Other nations have been more dependent on Middle East oil than the United States; others already had exhausted most of the productivity gains to be derived from migration out of agriculture; expenditures on health, safety, and the environment have been much larger, proportionally, in Japan and no less onerous in Europe than in America; and the government's share of national product, plus government borrowings, has been significantly larger in all these nations than in the United States.

The answer is found in the way America has organized itself. Put simply, American political and economic institutions have been relatively incapable of adapting to a new world economy.

America's failure to adapt can be seen in the nation's rising tide of protectionism. Since 1969 the United States steel industry has been protected from competition; it has now obtained a quota against European steel and is petitioning for a quota against Japanese steel. So too with American textiles, apparel, footwear, and televisions. For the last two years, Japanese automobile manufacturers have "voluntarily" restricted their exports to the United States, and that restriction in all likelihood will be continued and tightened in the years ahead. The Japanese also are "voluntarily" restricting some twenty other categories of exports to the United States. Meanwhile, the Reagan administration has imposed a quota on imported sugar for the first time in nearly a decade. And

in the last few months a score of protectionist bills have been introduced in Congress, designed to—among other things—restrict government purchases to goods produced in America, impose reciprocal tariffs or quotas in imports from nations that block American-made products, and require that automobiles sold in the United States contain a substantial amount of American workmanship. American manufacturers, at the same time, are furiously filing complaints with the government, alleging foreign “dumping” of products in the United States market at prices below their cost of production. Even America’s so-called “high technology” industries are falling under wraps. Under pressure from Congress and the Pentagon, AT&T is now requiring that most of the fiber-optic equipment it purchases to be manufactured in America. U.S. semiconductor manufacturers are seeking refuge from the Japanese.

To be sure, protectionism is on the rise in all industrialized nations, as the world recession threatens basic industries the world over. Western European textile, steel, and automobile manufacturers are obtaining quotas and non-tariff barriers against foreign producers. Even Japan—now the least protective of all major industrialized nations, with an average import duty of just over 4 percent—shelters many agricultural commodities and often subjects foreign manufacturers to a maze of red tape. But by any measure, protectionism in America is increasing more rapidly and more dramatically than elsewhere. Recent opinion polls show that Americans have abandoned what was once a strong consensus for free trade as an international value. Democratic politicians are now positioning themselves for the 1984 election with protectionist rhetoric.

The irony, of course, is that such protectionism retards future economic growth by encumbering the movement of resources toward more productive uses. History provides a stern warning: any attempt to stop industrial evolution discourages new investment, new businesses, new jobs. It increases the cost of supplies. It retards innovation. It fuels inflation. It also stymies the development of other economies (the current financial crisis in several Latin American nations can be traced, in part, to rising protectionism among industrialized nations). Protectionism thus perpetuates, even accelerates, the underlying economic decline.

One need not dig very deeply in American soil to discover the political roots of the new protectionism. Massive unemployment is taking a hard toll. And the real cost of unemployment is more than financial. Researchers have found that every 1 percent increase in the American unemployment rate correlates with 920 more suicides, 650 more homicides, 500 more deaths from cirrhosis of the liver, heart, and kidney disease, 4,000 more admissions to state mental hospitals, and 3,300 more people sent to state prisons. In all, a 1 percent increase in unemployment is accompanied by 37,000 more deaths, including 20,000 heart attacks. Unemployed workers are also more likely to experience physical debilitations like dizziness, rapid heartbeat, troubled sleep, back and neck pain, and high blood pressure. They have higher levels of serum glucose, serum pepsinogen, and se-

rum uric acid, all associated with stress. Yet because most private health insurance is provided through employment, over 70 percent of the unemployed in America have no health insurance to fall back on.

The strain of sudden unemployment takes its toll in other ways as well. Family savings often are depleted, mortgages foreclosed, pension benefits lost. Even when lucky enough to find new jobs, the unemployed typically must settle for wages substantially below what they earned before. The human costs of shut-downs and closings are multiplied across communities as the regional economic fabric begins to unravel. The total unemployment generated by the decline of a major employer is normally two or three times the number of employees directly affected. Entire communities are left high and dry without an adequate tax base, and just at the time when they have greatest need for the extra funds to provide health and welfare services. (Had Chrysler folded, Detroit would have sustained a tax loss of some \$75 million.)

These human costs elude any neat tally. But it is revealing to see how they ultimately translate into the national accounts. Economists estimate that a 1 percent increase in the nation's unemployment rate, sustained over a year, costs the American economy \$68 billion in foregone gross national product, \$20 billion in foregone tax revenues, and \$3.3 billion in added expense for unemployment benefits, food stamps, and other forms of public aid. In light of these extraordinary figures, and the personal tragedies that lie behind them, arguments for preserving jobs through protecting America's ailing industrial base take on added strength.

But the choice is not necessarily between preserving an increasingly outmoded industrial base or enduring the staggering costs of unemployment. There is a third choice. That is to shift the nation's industrial base toward the production of higher value-added goods that are more competitive in world markets. To accomplish this shift, workers can be given assistance in retraining and relocating; outmoded infrastructure (roads, bridges, sewers, ports) can be modernized; businesses can be encouraged to divest themselves of their least competitive parts and to reinvest in new, more competitive segments of their industries—particularly in regions of potentially high unemployment and underused infrastructure. Government, working hand in hand with management and labor, can ease the transition out of declining segments of industries and into emerging ones. In this way, the nation's industrial evolution can be accelerated rather than stalled.

Other industrialized nations are trying to move down this third path. West Germany and France are each devoting over 2 percent of their yearly gross national product to worker retraining, while simultaneously pouring billions of dollars into restructuring their industries toward more technologically sophisticated production. Japan's elaborate system of indicative planning is seeking to accomplish much the same transformation. Nations such as Austria, Sweden,

Italy, Canada, and Ireland also recognize the need for radical economic restructuring, but are having more difficulty summoning the resources and fashioning the agreements among business and labor necessary to accomplish it. No nation is succeeding entirely. The current world recession, whose severity has been compounded by America's high interest rates, is discouraging new investment the world over. And with rising unemployment, protectionist demands are increasing. But these nations are at least trying to adapt their economies. When the worst of the recession is over, many of them will regain their stride. America and Britain, by contrast, remain trapped within a free market ideology that is bringing both economies to their knees, and forcing both nations to choose between protectionism and unemployment.

The problem is political as well as ideological. In capitalist economies, the ultimate responsibility for shifting a nation's industrial base lies with business leaders, who make the day-to-day decisions about how human and capital resources are to be deployed. Even the most carefully designed industrial policies would have very little effect in a country whose business leaders lacked the skill, judgment, or commitment necessary to implement the necessary restructuring. And it is here that America has been stalled. For rather than invest in restructuring American industry and retraining American workers, American managers have forsaken America for quicker profits—profits derived both from foreign operations and from “paper entrepreneurialism.”

There is abundant evidence of corporate flight: during the 1970s, General Electric expanded its worldwide payroll by 5,000, but did so by adding 30,000 foreign jobs and reducing its United States employment by 25,000. RCA followed the same strategy, cutting its U.S. employment by 14,000 while increasing its foreign workforce by 19,000. Ford Motor Company plans to spend more than 40 percent of its capital budget over the next few years outside the United States. General Motors has given up its plans to build a new multi-million dollar plant in Kansas City, Missouri, and instead has shifted its capital spending to Spain. Uniroyal now produces its tires in Brazil, Turkey, Spain, and Australia. Bulova Watch Company now manufactures watch movements in Switzerland and ships them to Pago Pago in American Samoa, where they are assembled and shipped to the United States to be sold. A score of American manufacturers have shifted their operations to Mexico, just south of the border, where they now employ almost 30 percent of the regional labor force. All told, between 1950 and 1980, direct foreign investment by United States businesses increased 16 times, from about \$12 billion to \$192 billion. Over the same period, gross private domestic investment grew less than half as rapidly, from \$54 billion to about \$400 billion.

It would be wrong to conclude that we simply have to keep American manufacturers and American capital in America to solve our adjustment problems. American jobs are being lost in basic industries principally because the same goods can now be produced for the world market more cheaply using the same produc-

tive processes in countries where workers are willing to work for far lower wages. The problem is not that American businesses have moved their low-skilled, simple manufacturing operations abroad in order to take advantage of this cheaper labor. In many cases that has been a wise strategy: the American manufacturers could not have continued to be competitive internationally had they not reduced their labor costs substantially. Even Japan has moved many of its low-skilled assembly and batch-process operations to South Korea, Taiwan, Hong Kong, Singapore, and Indonesia. The shift of low-skilled, standardized manufacturing to lesser developed nations is both inevitable and desirable. It enables developing countries to build up their manufacturing industries and their national incomes. It simultaneously allows industrialized nations to shift their domestic capital and labor to higher-valued uses, while at the same time establishing new markets for these more advanced goods. In this way, the very process by which industrialized nations shed their older industries and embrace newer ones propels the international economy forward.

The real problem is that American businesses have not been moving rapidly enough to higher-valued production. While shifting their low-skilled manufacturing operations abroad, they have not simultaneously upgraded their United States operations. They have not retooled their plants, redesigned their machinery, retrained their workers for higher-valued and more sophisticated production. With some notable exceptions (American computers and semiconductors, for example), American manufacturers have simply held on to increasingly outmoded processes and products—replicating them abroad in order to keep them competitive in world markets.

Paper entrepreneurialism describes the other dominant corporate strategy of the last decade. It relies on financial and legal virtuosity. Assets are rearranged on paper, but nothing new is produced. These manipulations now represent the most dynamic aspect of the American economy. Before 1970, for example, unfriendly conglomerate mergers were almost unknown. Since then they have grown in volume and intensity. By 1981, \$82 billion was spent by corporations consuming one another, largely after gladiatorial contests. Notwithstanding the 1982 recession, the pace continued, with Bendix and Martin-Marietta—among others—battling to near exhaustion. Financial wizardry has also been demonstrated in recent years by exchanging new stock for old, engaging in liberal bookkeeping methods for measuring depreciation, adjusting expected rates of return on employee pension funds, showing certain transactions as collateral borrowings rather than as sales, shifting taxable income to foreign tax shelters, speculating on financial futures, and mounting expensive antitrust suits.

The problem with paper entrepreneurialism is not that it takes resources out of the American economy. Assets are merely rearranged. The real problem is the same as that underlying industrial abandonment: these activities substitute for the more difficult job of transforming the U.S. industrial base. Paper entrepre-

neurialism preoccupies corporate managers (who might otherwise be concerned about new products and processes) and gives the false appearance of dynamic change. Meanwhile, America's industrial base stagnates.

Success in higher-valued production requires substantial new investments—in research, machinery, and in people. These sorts of investments will not show a return for many years. Our capital markets simply are not organized to be this patient. The American stock market, led by institutional investors, relentlessly demands a healthy show of quarterly earnings. It is far easier to satisfy the immediate cravings of this market by shifting standardized production overseas while at the same time engaging in tax avoidance, creative accounting, mergers, acquisitions, and litigation at home.

This is not to suggest that America or any other industrialized nation should abandon its basic steel, automobile, chemical, and textile industries. Issues of national defense aside, it is still the case that these basic industries provide the gateways through which new products and processes emerge. It is far easier to move into emerging industries by upgrading manufacturing skills and know-how—and elaborating upon networks of suppliers, distributors, and customers already in existence—than by leaping into a totally uncharted sea of products and processes unrelated to an industrial base of the past. Incremental change of this sort is what industrial evolution is all about. Rather than abandon these older industries, we should seek to restructure them toward more sophisticated businesses—such as specialty steel, fine chemicals, synthetic and carbon fibers, and precision-engineered automobiles and automobile components.

We must also be clear about the consequences of industrial abandonment and paper entrepreneurialism in America. It is more complex than mere loss of jobs. During the whole of the 1970s, the American economy did far better than any other industrialized nation at creating new jobs—over 22 million of them—notwithstanding the gradual erosion of the American industrial base. What is more, we can expect that during the next few years foreign nations will invest substantial sums in building new assembly facilities on American soil, for the simple reason that it is often cheaper to ship components over long distances and assemble them where you plan to sell them than it is to ship the finished goods all the way. It is not simply to forestall protectionist sentiments that Volkswagons are produced in Pennsylvania and Hondas in Ohio. Last year, foreign investment in America actually exceeded American investment abroad.

We will have jobs, but they will be relatively menial jobs. A large percentage of them will be either in services sheltered from international competition or else in simple manufacturing tasks that are undertaken in America in order to reduce distribution costs—office clerks, machine operators, orderlies, janitors, sales clerks, cashiers, waiters and waitresses, machine assemblers. (According to the Bureau of Labor Statistics, two job categories in particular will do quite well in the years ahead—the demand for food service workers will increase by 49.6 per-

cent over the next decade, and the number of jailers and correction officials will increase 46.5 percent.) Thus over the long term, the consequence of America's failure to shift its industrial base will be a decline in the standard of living of Americans relative to that of the citizens of other industrialized nations.

The answer is not to slow down the movement of capital in order to preserve old jobs. To the contrary, we must speed up the movement of capital and redirect it toward the creation of a new industrial base in America. Such an industrial policy also will require a massive investment in worker training and retraining for the new jobs that the new industrial base will entail: laser technicians, robotics technicians, engineers capable of developing solar, ocean, tar sands, and geothermal energy supplies, contractors capable of fabricating modular housing, specialists in disposing of hazardous wastes.

An industrial transformation on this scale will necessitate close cooperation among business, government, and labor. Government must contribute public funds to the massive task of retooling and retraining. In return, business must in fact retool and retrain instead of merely shifting its production abroad and exchanging paper assets at home. And in return for retraining and job security, labor must abandon its rigid job classifications, work rules, and cost-of-living increases. This agreement must be extended to other citizens as well—especially the poor, minorities, and young, on whom the burden of fighting inflation has fallen hardest in recent years. In exchange for fiscal and monetary policies designed to foster full employment, and education and training programs designed to give them job-related skills, these groups must agree to certain cuts in welfare and other entitlements programs. In short, the nature of the bargain is this: the burdens of economic change should not fall disproportionately on anyone, and the benefits should be spread broadly and equitably. In return for this assurance, none should seek to block economic change.

How do we achieve this social agreement? The challenge is more political than economic. Yet most of the voices we hear these days call for economic planning insulated from politics. The neoconservative version vests primary responsibility with the Federal Reserve Board and with America's largest corporations; the neoliberal version, with tripartite industrial boards—insulated from politics—comprising leaders of business, labor, and government, or with a reconstituted Reconstruction Finance Corporation. Both versions evidence a strong antidemocratic bias, because they rest on the assumption that it is easier to promote economic change in a vacuum, without having to bargain directly with those who are likely to bear the brunt of it. A new social agreement, by contrast, would require constant, ongoing negotiations among all affected parties, within many levels and forms of representation—a messy and exhausting process.

Superficially at least, industrial change poses a dilemma for democratic in-

stitutions: successful economic adaptation depends on flexibility and speed, while democracy is almost necessarily slow and ponderous. The most successful adaptors in recent years seem to be those nations in which organized labor has been virtually excluded from the formal policy process (France and Japan), nations that have been dominated by a stable one-party regime (Japan and Austria), or nations that have had a highly centralized and disciplined labor force alongside an equally centralized and stable business leadership (West Germany). The slow adaptors—particularly America and Great Britain—have been characterized by a contentious and open politics in which no major party has held power for an extended length of time.

But a deeper inquiry into the nature of economic adaptation reveals an important social dimension: adaptation has been most successful in those societies that have nurtured and preserved a collective commitment to economic change. Notwithstanding the seeming impoverishment of their formal politics, Japan, West Germany, France, and Austria each have developed a wide range of consultative and participatory mechanisms at all levels of their economy—from shop floor to economic ministry. Politics in America and Britain, by contrast, have tended to be highly symbolic, with major parties adhering largely to ideological and class lines. Few genuinely consultative mechanisms exist within either economy. Both nations in recent years have become more hierarchical; their distributions of income and wealth are among the least egalitarian of any major industrial society.

In advanced industrial nations, economic adaptation is inextricably linked to democratic participation both within the firm and in the formation of national economic policy.

The enterprises that will dominate the economics of advanced nations in the future depend on participation and thus on security and equity. Wherever such enterprises are found—in many Japanese factories, in the *sogo shosha* (trading companies) of Japan, in a few American companies producing high-technology goods, in Israeli kibbutz industries, in several Swedish and West German firms, in the plants of the Mondragon region of Spain—they share many of the same attributes: the salaries, benefits, and status of senior managers are not vastly different from those of junior employees; employees are relatively secure in their jobs; and important company decisions depend on widespread consultation and negotiation. These features contribute to increased productivity not because they make employees somehow “feel good” about the firm—on the contrary, they sometimes cause strains and frustrations and demand an annoying amount of time and attention—but because they enhance the organization’s capacity to adapt quickly to novel situations. Only when skills, knowledge, and responsibility are widely diffused can employees build on one another’s strengths in responding to new problems and opportunities; only when employees feel relatively secure from arbitrary job loss and on an equal footing can they collabo-

rate spontaneously. In this setting industrial change does not have to be "sold" to the work force; change is promoted and carried out by the work force.

These enterprises exist in large part for the people who work within them. Of course, if the enterprises are successful, they also enrich their customers, suppliers, and stockholders. But one of their central missions is to enhance the lives of their employees. In a real sense they are political communities whose leaders are accountable to their members.

On the other hand, workers who doubt that the burdens and benefits of rapid adaptation will be shared equitably resist change outright or resort to subtle forms of sabotage: blue-collar workers cling to work rules and rigid job classifications and fight against new technologies and productivity improvements; technical specialists steal company assets and make off with company secrets; managers earn as much money as they can before deserting the company for more lucrative positions elsewhere. Without a network of mutual obligation within the enterprise no one sacrifices for the long term or for the greater good of the work community. Each group seeks to defend its own prerogatives. Such is now the case in the typical American and British company.

The same lesson can be found at the other end of the economic spectrum—in the way macroeconomic policy is formulated. America continues a vain attempt to "fine-tune" the nation's economy, using fiscal and monetary manipulation to control inflation. The economy is squeezed and twisted until those citizens in the most precarious positions lose their footing. Invariably the poorest among us have been drafted into the inflation fight through unemployment. Inflation is the monetary manifestation of an unacknowledged struggle over how to allocate the losses from economic decline. Organized groups that understand this consistently win the struggle. Other groups lose. Over the past decades the burden of fighting inflation has been borne by young blacks in central cities (86 percent of whom are unemployed), by women (36 percent more likely than men to be unemployed), and by Hispanics (75 percent more likely than whites). It is ever more obvious that the only way inflation can be controlled equitably is through national agreements on overall wage and price increases. Otherwise, the burden of fighting inflation falls almost entirely on those least able to bear it.

Wage and price increases in every other industrialized nation follow guidelines established in national negotiations. In Norway, Sweden, and Denmark economy-wide "framework" agreements are formally negotiated between employer and labor federations; in Austria, Belgium, the Netherlands, and Japan representatives of the major businesses and labor confederations conduct ongoing negotiations. The national bargaining arenas in these countries provide all segments of the population with highly visible opportunities to clarify goals, articulate demands, and negotiate precise trade-offs among inflation, unemployment, and structural adjustment.

But America and Britain cling to the fiction of a "managed economy," in

which government merely applies neutral principles of fiscal and monetary policy. Structural adjustment cannot be a part of this managerial agenda because there is no consensus about the direction adjustment should take and no organizational arena for forging such a consensus.

In sum, the kinds of productive systems that will sustain America's future prosperity are technically intricate. They demand an exacting degree of teamwork. They are vulnerable to individual sabotage in the form of active resistance, the stagnant inefficiency of resentful time servers, or the cynical manipulation of legal and financial symbols. Likewise, our national economy is ever more exposed to sudden global changes. Responding to these challenges requires an engaged and adaptable citizenry. We all are at the mercy of recalcitrant minorities who fear change (when we ourselves are not members of such minorities).

Under these circumstances, many Americans are resisting change, resorting, instead, to strategies of historic preservation. Lacking mechanisms for negotiating and ensuring the fairness of collective response, we are eschewing collaboration and seeking security and gain in schemes of paper entrepreneurialism and ploys of "beggar thy neighbor." We struggle to avoid sacrifices and burdens we believe others are successfully evading, and we refuse to support social services, the direct beneficiaries of which are different from ourselves. And we seek to gain personal benefits at the expense of society at large, benefits like those we suspect others are already obtaining. The social fabric is slowly unraveling.

Industrial evolution has a correlate in the political institutions which invariably determine its pace and direction. Unless those institutions encourage open bargaining over how the benefits and burdens of economic change are to be allocated, industrial evolution will be blocked or perverted. That is the difficult lesson that America must learn in the years ahead.