Defeated in battle and ravaged by bombing in the course of World War II, Germany and Japan nevertheless made postwar recoveries that startled the world. Within ten years these nations were once again considerable economic powers. A decade later, each had not only regained prosperity but had also economically overtaken, in important respects, some of the war’s victors.

The surprising swiftness of recovery from disaster was also noted in previous eras. John Stuart Mill commented on what has so often excited wonder, the great rapidity with which countries recover from a state of devastation; the disappearance, in a short time, of all traces of the mischiefs done by earthquakes, floods, hurricanes, and the ravages of war. An enemy lays waste a country by fire and sword, and destroys or carries away nearly all the moveable wealth existing in it: all the inhabitants are ruined, and yet in a few years after, everything is much as it was before. (Mill 1896, book 1, chap. 5, para. I.5.19)

Still, successful recovery is by no means universal. The ancient Cretan civilization may or may not have been destroyed by earthquake, and the Mayan civilization by disease, but neither recovered. Most famously, of course, the centuries-long Dark Ages followed the fall of Rome.

Sociologists, psychologists, historians, and policy planners have extensively studied the nature, sources, and consequences of disaster and recovery, but the professional economic literature is distressingly sparse. As a telling example, the four thick volumes of The New Palgrave: A Dictionary of Economics (1987) omit these topics entirely. The words “disaster” and “recovery” do not even appear in the index of that encyclopedic work. Yet disasters are natural economic experiments; they parallel the tests to destruction from which engineers and physicists learn about the strength of materials and machines. Much light would be thrown on the normal everyday economy if we understood behavior under conditions of great stress.
The Historical Record

Although everyday small-scale tragedies like auto accidents and disabling illnesses are disastrous enough for those personally involved, our concern here is with events of larger magnitude. It is useful to distinguish between community-wide (middle-scale) calamities such as tornadoes, floods, or bombing raids, and society-wide (large-scale) catastrophes associated with widespread famine, destructive social revolution, or defeat and subjugation after total war. In community-wide disasters the fabric of the larger social order provides a safety net, whereas society-wide catastrophes threaten the very fabric itself. The former may involve hundreds or thousands of deaths; the latter, hundreds of thousands or millions. (As a special case, hyperinflations and great business depressions are society-wide events that do not directly generate massive casualties and yet still have calamitous consequences.)

Middle-scale community-wide disasters are relatively frequent events, making empirical generalizations possible. In such disasters, it has been observed, individuals and communities adapt. Survivors are not helpless victims. Very soon after the shock they begin to help themselves and one another. In the immediate postimpact period community identification is strong, promoting cooperative and unselfish efforts aimed at rescue, relief, and repair. After the San Francisco earthquake of 1989, for example, inhabitants of a poor neighborhood spontaneously helped rescue motorists trapped by a freeway collapse. And after the Anchorage earthquake of 1964, local supermarkets kept the prices of necessities low while consumers generally cooperated by self-rationing.

On the other hand, there have been some serious instances of antisocial behavior. Notably, while goodwill and cooperation predominated in New York City during the 1965 electrical blackout, a second blackout in 1977 brought major violence and looting. Similar bad experiences occurred after Hurricane Hugo struck the Virgin Islands in 1989. Nevertheless, as Russell Dynes and Thomas E. Drabek have shown, prosocial behavior has historically predominated in such situations. Instances to the contrary, while not rare, usually have fairly evident roots—where members of a community have a strong preexisting sense of grievance, for example. As an even more reliable generalization, a crisis almost always triggers a flow of support from outside the immediate impact area, a phenomenon that has become known as “convergence behavior.” Surprisingly often, recovering communities even surpass previous rates of progress, owing to the emergence of new leaders, enhanced social cohesion, and the abolition of outmoded attitudes and regulations.

As a specific instance, the fire-bomb raids on Hamburg in July and August 1943 were highly intense community-wide disasters. As normally occurs in such situations, people proved tougher than structures. The raids destroyed about 30 percent of the buildings in the city, whereas the 40,000 people killed were less than 3 percent of the population at risk. About half the survivors left the city. Some 300,000 returned in the recovery period, while around 500,000 were permanently evacuated to other areas throughout Germany. A “dead zone” of the city was closed off so that repairs could be concentrated in less seriously damaged areas. Electricity, gas, and telegraph services were all adequate within a few days after the attacks ended. Water supply remained a difficult problem, however, and tank trucks had to be used. The transit system recovered only partially because of serious damage and abnormally heavy traffic, but mainline rail service resumed in a few days. On the seventh day Hamburg’s central bank reopened and business began to function normally. Hamburg was not a dead city. Within a few months, the U.S. Strategic Bombing Survey reported, the city had recovered 80 percent of its former productivity.

Now consider a truly large-scale disaster: the Bolshevik attempt to impose “war communism” in Russia from 1917 to 1921, dispensing with markets and even the use of money. The Russian economy had already headed drastically downward during the preceding civil war. Industrial production fell to only 20 percent of the prewar level, and the cultivated area in agriculture to around 70 percent. But it was only after the final Red victory that the economy, instead of recovering, went into a total downspin. Alexander Baykov quotes Lenin in this regard:

On the economic front, in our attempt to pass over to Communism, we had suffered, by the spring of 1921, a more serious defeat than any previously inflicted on us by Kolchak, Denikin, or Pilsudsky. Compulsory requisition in the villages and the direct Communist approach to the problems of reconstruction in towns—this was the policy which... proved to be the main cause of a profound economic and political crisis. (Baykov 1947, p. 48)

The explanation appears to be that, initially, the Bolsheviks had established direct control only over the “commanding heights” of industry (i.e., over a relatively small number of large factories located mainly in the major cities). Elsewhere, a variety of private and cooperative arrangements kept industry and trade functioning, at least minimally. Military victory permitted the Communists to turn their attention to liquidating these remnants. In addition, many small capitalists who had stayed on in the hope of Soviet defeat finally decamped and abandoned their enterprises. Thus the paradox of economic collapse after political and military victory.

The shift in mid-1921 to the New Economic Policy (NEP), restoring monetary exchange and allowing considerable scope to private enterprise, led almost immediately to a substantial recovery. As a remarkable feature, this very recovery, by creating a
demand for currency as a means of exchange, permitted the Soviets to use the printing presses to acquire resources through a vast inflation of the money supply. The NEP allowed the economy a breathing space before the introduction of the Stalinist five-year plans, with their forced drive toward collectivization and industrialization.

Factors Helping and Hindering Recovery

One factor favorable to recovery is the inevitable shift of demand from less essential wants, which then frees resources for urgent rescue, repair, and rehabilitation. On the supply side, resource imports (gifts, insurance proceeds, commercial loans, etc.) will flow into damaged areas from outside support zones. More important, especially in the long run, is reserve productive capacity. Workers put in more hours, children leave school, and the elderly return from retirement. Machines and structures can be worked harder. Resource substitution—such as tents in place of houses, or trucks for buses and trains—enlarges the availability of essentials. Finally, stifling regulation of commerce and industry can be relaxed or suspended, and socially dysfunctional activities such as crime and parasitical litigation can be placed under stricter rein.

For the middle-scale disasters the main problems have been technological and distributive (e.g., localized resource scarcities or the provision of fair compensation). But in large-scale calamities the survival of the social order itself is in question. Widespread famines, pandemics, destructive social revolutions, disastrous wars, and even severe business depressions and monetary hyperinflations all threaten the network of arrangements supporting the elaborate division of labor on which modern economies depend.

Historically, the most immediately vulnerable aspect of this division of labor has been the money-mediated exchange of food and manufactured goods between rural and urban areas. Correspondingly, the most visible symptom of breakdown is a movement of population from the cities back to the countryside, as illustrated in ancient times by the emptying of cities in the declining Roman Empire. In modern times the populations of Moscow and Petrograd fell by more than 50 percent between 1917 and 1920, during the Russian civil war. And similarly, though not to nearly so great a degree, the German and Japanese urban populations both declined substantially toward the end of and in the aftermath of World War II. And even in the United States, the 1929–1935 depression saw a pause, and to some extent a reversal, of the long-run trend toward urbanization.

Under Russian war communism this breakdown of monetary exchange was due to an ideologically driven attempt to smash the system of private incentives that had previously served to feed the cities. For Japan and Germany, a somewhat different “repressed inflation” process was at work, as had often occurred earlier—for example, during the French Revolution and in the southern Confederacy during the American Civil War.

The process begins with military or economic stresses—such as territorial losses, transportation breakdowns, or inflationary war finance measures—that inevitably entail food scarcities. The crucial false step is the introduction of price ceilings on food, with the aim of “fair shares” or simply to hold down urban unrest. But the consequence is that farmers reduce their food deliveries to the cities. Unofficial mechanisms of distribution then emerge: black markets, barter, and trekking (day trips of city dwellers to the countryside), all involving losses due to higher transaction costs. As the cities begin to lose population, industrial production declines. The government may then attempt to confiscate the crops by military force. This threatens to cause a general breakdown of food production. At this point, if not earlier, governments have historically given way, for example when the Bolshevik government felt pressured to introduce the NEP. In postwar Germany and Japan, fortunately, the downward spiral had not progressed nearly so far before the Erhard (see german economic miracle) and Dodge reforms restored the functioning of the price system.

Policy Issues: The Role of Government

There is widespread agreement that government must take responsibility for maintaining and restoring the economic infrastructure—the system of law and order, plus essential transportation and communication links. For middle-scale community-wide disasters, the main policy question has been the extent to which government should engage in additional activities, at either the planning or the recovery stage, that might hamper or displace private efforts. Grants or subsidized loans subvert the motivation for private self-protection. For example, subsidized government flood insurance induces excessive construction in areas that are vulnerable to flooding. Similarly, some forms of government relief hinder the recovery of normal business. Free food distribution, for example, may slow the restoration of regular marketing channels. Also debatable is the extent to which government should provide extra incentives for disaster preparations as well as a paternalistic safety net for those who were in a position to act but failed to do so. As reviewed by George Horwich, despite the government-created disincentives for private action, commercial disaster response firms have come into existence (e.g., Disaster Masters, Inc., of New York City) together with an industry newsletter, Hazard Monthly.

When it comes to the large-scale society-wide disasters, however, private parties can scarcely protect themselves at all, except
possibly by emigration. Historical experience suggests that recovery will hinge on the ability of government to maintain or restore property rights together with a market system that will support the economic division of labor.

Taking a broader view, the subject of disaster and recovery can be regarded as a special case within the general problem of economic development. As events in the 1980s and 1990s have forcefully demonstrated, socialism subjected the nations of Eastern Europe to decades of economic disasters. Some, such as Poland, Estonia, and the Czech Republic, are recovering well from these disasters; others, such as the Ukraine, are still struggling.

About the Author

Jack Hirshleifer (1925–2005) was a professor of economics at the University of California, Los Angeles, until his death.

Further Reading

Regarding disaster recovery strategies, ISO/IEC 27031, the global standard for IT disaster recovery, states: “Strategies should define the approaches to implement the required resilience so that the principles of incident prevention, detection, response, recovery and restoration are put in place.” Policies and procedures: Define policies for IT disaster recovery and have them approved by senior management.

Disaster and Recovery. By Jack Hirshleifer. SHARE POST: Defeated in battle and ravaged by bombing in the course of World War II,
Germany and Japan nevertheless made postwar recoveries that startled the world. Still, successful recovery is by no means universal. The ancient Cretan civilization may or may not have been destroyed by earthquake, and the Mayan civilization by disease, but neither recovered. Most famously, of course, the centuries-long Dark Ages followed the fall of Rome. Disaster recovery involves a set of policies, tools and procedures to enable the recovery or continuation of vital technology infrastructure and systems following a natural or human-induced disaster. Disaster recovery focuses on the IT or technology systems supporting critical business functions, as opposed to business continuity, which involves keeping all essential aspects of a business functioning despite significant disruptive events. Disaster recovery can therefore be considered as a subset of