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HOW TO KILL AN INDUSTRY


A new genre of economic analysis chronicles the slow decay of key American industries. "There was a time," this sort of tale begins, "when the United States was an example for the rest of the world. The (fill in the blank with steel, textiles, auto, or electronics) industry was efficient, innovative, and generous to all within it. What's more, the industry was pivotal to the U.S. economy." Taken individually, these stories are interesting vignettes; together, they form an indictment of the U.S. economy.

The machine-tool industry is a prime candidate for such a story. Machine tools are "mother machines" of manufacturing: any process of forming or cutting metal involves a machine tool. Societies based on manufacturing are based on machine tools. From the Civil War to the mid-sixties, the U.S. machine-tool industry was the envy of the world. But no longer.

The American Machinist estimates that in 1987 Japan and Germany exported machine tools worth almost $6.5 billion while U.S. exports were estimated at only $640 million.

Max Holland's WHEN THE MACHINE STOPPED illustrates the changing nature of the U.S. economy by examining the history of a failed machine-tool manufacturer, Burg Tool. Holland's story begins with the dream of a Czech immigrant and ends with a battle involving Japan's Ministry of International Trade and Industry (MITI), the investment banking firm of Kohlberg, Kravis, Roberts & Co. (KKR), President Reagan, Ed Meese, and others.

Fred Burg came to the United States in 1911 at the age of fifteen. In California he became a skilled machinist and inventor. His prime invention, the "tool-flex," became such a sensation that he quit his job and began a full-time business in his garage in 1945. He hired his son, Joe, and his son-in-law, Norm Ginsburg. Joe was the master salesman; Ginsburg was in charge of manufacturing. The "old man," Fred, was the visionary and the guiding force of the organization. A formidable team.

Burg Tool expanded rapidly. In 1957 it created one of the first numerically controlled machines. To raise funds for expansion, the company went public, changing its name to Burgmaster. By the early sixties Burgmaster controlled almost 80 percent of the turret drill market. However, in 1960 another firm, Kearney & Trecker, unveiled technology that threatened to transform the industry.

Fred Burg set to work outgunning the Kearney & Trecker machine. But Burgmaster couldn't afford to expand and develop a new turret drill at the same time. In 1965 Houdaille Industries, a Chicago conglomerate, offered to buy Burgmaster and expand its facilities. The deal seemed to offer the best of all worlds for Burgmaster: money to expand and no strings attached.
Holland's book is powerful evidence, however, of the danger of conglomerate organization in a cyclical industry. Conglomerates demand stable returns for their stockholders, something the machine-tool industry could no longer provide. Houdaille transformed Burgmaster into a company that aimed at quarterly forecasts and predictable returns rather than market share and product development.

Changes in personnel, the drive to meet forecasts, the flirtation with computer monitoring of production were all for naught, and soon Houdaille's management was looking for a way out. Enter Kohlberg, Kravis, Roberts & Co., which proposed a leveraged buyout (LBO) for Houdaille. For both KKR and Houdaille management the deal promised millions.

Essentially, an LBO is a mortgage of immense proportions. As a result of an LBO, a company must maximize cash flow, not profit or market share. To make the LBO pay off the debt, "whiz kids," finance wizards with no production experience, began to dominate the firm with their pages of printouts. Quality declined as machines were rushed out to feed the debt. The LBO and the coming recession presented the company with a triple threat of enormous debt, industry downturn, and foreign competition. Houdaille decided to engage the foreign competition through Washington.

As Houdaille begins its trade battle, When the Machine Stopped starts to lose its way. When Holland introduces the bureaucratic teams around Houdaille's claim of unfair trade, he tells us that the free-trade group (from the Treasury, State, and Justice departments, and elsewhere) "dubbed itself the White Hats." The Houdaille advocates adopted the label "Realists." A few pages later Holland writes, "What had begun as a skirmish between White Hats and Jap-Bashers had become nothing less than the main battleground in the Republicans' ongoing war between so-called free and fair trade." The White Hats get to keep their chosen title, but not the Realists, whom Holland refers to as Jap-Bashers for the remainder of the book.

The weakest part of Holland's book is his discussion of trade and industrial policy. According to Holland, "Any nation that cannot define, much less assemble, a coherent role for government in its economy is in trouble." However, in specifying that role, Holland is surprisingly minimalist.

In his view, the most important reason for the failure of the machine-tool industry in the United States was insufficient investment caused by the "unpredictable economic climate of the 1970s," which "was not conducive to capital investment and risk." Thus the government's role should be limited to providing a sound economic climate, stabilizing exchange and interest rates. This, according to Holland, is the secret of Japan's success.

To make this argument, Holland has to downplay the role of MITI, which is a central player in Japanese industrial policy. Holland seriously underestimates the role played by the Japanese government. The Japanese have flourished not just because of their more stable economic climate. They have flourished because their government has self-consciously taken responsibility for managing the economy and for creating competitive advantages in key industries. Holland is also misguided in arguing about whether MITI played a part in this or that particular episode of economic policy. As the goals of Japanese economic strategy have changed, so have the functions and the importance of one or another of Japan's institutions of economic management. What has remained constant is the public sector's responsibility for overall management of the economy. Within that framework, firms have the freedom to back the planning agencies. That flexibility is a strength, not a weakness, of the system.

Holland's antipathy toward state intervention prevents him from seeing that technology in machine tools is evolving in a way that invites a more active role for government. Machine tools are shifting from individual units of the kind made by Burgmaster toward Flexible Manufacturing Systems—combinations of machines requiring limited operator intervention. The production of such complex machinery requires combining parts from diverse industries. For these reasons the industry trend is toward coordinated action by groups of firms. Innovation becomes a function of teamwork. Cooperation and industry standards are critical to national success.

The Burgmaster case demonstrates the need for a more active state role in the economy. A government agency could directly make the investments that Holland shows are lacking rather than provide an "economic climate" and hope for the best.

Holland shies away from calling for an interventionist state because he won't question his own assumptions about trade or about sources of innovation. But the days when heroic entrepreneurs like Fred Burg invented machine tools in their garages are past. The future belongs to those countries that can organize their industries and manage trade.