

Two cultures? An Army trainee in combat gear encounters some civilians near Fort Polk, Louisiana.

they are only somewhat more economically conservative. More significantly, there is no consistent evidence that the gaps are widening, and in a few cases the views of the two groups seem to have been converging since the end of the Cold War. About 77 percent of both groups now think it is vital to enlist the United Nations in settling international disputes, for example, up from 64 percent of civilians and 56 percent of officers in 1976. (However, fewer and fewer

consider "fostering international cooperation" very important: 57 percent of civilians in 1996, 40 percent of officers.)

Still, the growing partisan character of the military is a cause for concern, Holsti says. It is probably without precedent in U.S. history. But he thinks that most of the solutions advanced so far, from restoring conscription to restarting Reserve Officers' Training Corps programs at elite universities, simply aren't practical.

## ECONOMICS, LABOR & BUSINESS

## Semiconductor Jujitsu

"Reversal of Fortune? The Recovery of the U.S. Semiconductor Industry" by Jeffrey T. Macher, David C. Mowery, and David A. Hodges, in *California Management Review* (Fall 1998), Univ. of California, S549 Haas School of Business #1900, Berkeley, Calif. 94720–1900.

During the 1980s, the woes of the U.S. semiconductor industry became a symbol of America's alarming competitive plunge. In 1989, the Massachusetts Institute of Technology's Commission on Industrial Productivity, reflecting widespread expert sentiment, issued a report saying the industry was too "fragmented." Yet since then, semiconductor makers have made a dramatic recovery—assisted, ironically, by that very "weakness."

In the United States—in contrast to Japan and Western Europe—the semiconductor industry consists of numerous, relatively small firms, from industry leader Intel to Micron and other, more specialized companies. The U.S. firms dominated the world market until the mid-1980s, when Japanese producers, concentrating on the dynamic random access memory (DRAM) devices that supply computer memory power, surged into the lead, observe Macher, Mowery, and

Hodges, a doctoral student, professor of business and public policy, and emeritus professor of engineering, respectively, at the University of California, Berkeley.

State-aided Japanese giants such as Hitachi and Toshiba enjoyed an access to capital that U.S. firms lacked, and in the fierce race to develop higher-capacity memory devices and sell them cheaply, they drove many of their American competitors out of the DRAM business by 1985. Analysts who regarded DRAM production as an indispensable "technology driver" for semiconductor manufacturing painted a gloomy picture of the U.S. semiconductor industry's future. And indeed, the U.S. global market share fell from almost 62 percent in 1980 to a low of 37 percent in 1989.

But the industry's "fragmented" nature, a handicap in DRAM competition, turned out to be an asset. U.S. semiconductor makers were able with relative agility to shift their focus to higher-end products that played to American strengths in innovation, the authors say. "U.S. firms have reoriented their strategies . . . to concentrate on logic and microcomponent products, where foreign competition was less intense," and they could exploit their ties to computer software devel-

opers in coming up with new products.

That strategic repositioning, together with improvements in the quality of the products and in the manufacturing process itself, helped the U.S. industry regain global leadership in semiconductors by 1993, the authors say. By 1997, U.S. chip makers such as Intel and Texas Instruments controlled more than 50 percent of the world market, while Japanese firms, now facing DRAM competition from South Korea and Taiwan, saw their market share slip to 29 percent.

But the American "reversal of fortune" may not be permanent, the authors warn. Although worries about industry fragmentation proved groundless, there is reason for concern about the state of basic scientific research, which fuels commercial advantage in technology industries. Today, Bell Labs and the other huge corporate labs that did much of the fundamental research underlying semiconductor technology concentrate on short-range corporate goals, while the leading semiconductor firms themselves focus their research on new-product development. Hitachi and other major overseas competitors, the authors note, still do "considerable" long-range research.

## Markets versus Democracy

Writing in *The Nation* (Oct. 19, 1998), John Gray, a professor of European thought at the London School of Economics, argues that democracy and the free market are not reliable allies.

The late-20th-century political fad for the free market arose at a time when memory of it had faded. Mid-Victorian laissez-faire was short-lived (some historians have made the hyperbolic claim that there was never such an episode). The free market came about in England as a result not of slow evolution but swiftly, as a consequence of the unremitting use of the power of the state. Through the enclosures, the Poor Laws and the repeal of the Corn Laws, a Parliament in which most people were unrepresented turned land, labor and bread into commodities like any others. Yet as the franchise was widened, the needs of ordinary people were able to find political expression. The free market withered away gradually, through the natural workings of democratic political competition. By the time of the First World War, the economy had been largely re-regulated.

The short history of the free market in 19th-century England illustrates a vital truth: Democracy and the free market are rivals, not allies. 'Democratic capitalism'—the vacuous rallying cry of neoconservatives everywhere—signifies (or conceals) a deeply problematic relationship. The normal concomitant of free markets is not stable democratic government but the volatile—and not always democratic—politics of economic insecurity.