ness paid off in 1988, when China and South Korea made large trade concessions, and when Japan agreed to negotiate a new trade pact after U.S. threats of retaliation under the "Super 301" provision of the 1988 Trade and Competitiveness Act. It may not be as pure as the free traders would like, Stelzer concludes, or tough enough for the protectionists, but reciprocity allows trade to be "as free and open as is possible in a real world of competing economic and political interests."

Parting Company

"The Takeover Wave of the 1980s" by Andrei Shleifer and Robert W. Vishny, in *Science* (Aug. 17, 1990), 1333 H St. N.W., Washington, D.C. 20005.

The words "hostile takeover" evoke images of ruthless billionaires tearing apart helpless companies and firing workers for sport. By 1989, 143 huge corporations that belonged to the mighty Fortune 500 of 1980 had been swallowed up by other companies. All told, $1.3 trillion in corporate assets changed hands during the 1980s. What should have been done to stop the takeovers? Nothing, argue Shleifer and Vishny, professors of finance at the University of Chicago. American business, they say, is all the better for them.

Four times in this century booming stock markets have made corporations itchy to take over other companies. After buyout waves at the turn of the century and in the 1920s resulted in huge new steel and tobacco monopolies, however, Congress passed the 1950 Celler-Kefauver Act barring corporations from buying businesses in related industries. As a result, merger-hungry tycoons in the 1960s bought companies in diverse industries, giving rise to huge conglomerates.

The conglomerates were failures. According to one estimate, by 1989 they sold off 60 percent of unrelated businesses acquired between 1970 and 1982. When President Ronald Reagan relaxed anti-trust enforcement and loosened credit restrictions, he sparked the century's fourth buyout binge. It allowed many corporations to focus on their core businesses. Conglomerates—of-

Ignoble Nobel

The Nobel prize for economics is supposed to be awarded for work that confers "the greatest benefit on mankind." Instead, contends journalist Robert J. Samuelson, in the *New Republic* (Dec. 3, 1990), each year it goes to economists whose work is "more obscure than the year before."

Probably the only people left who think that economics deserves a Nobel Prize are economists. It confirms their conceit that they're doing "science" rather than the less tidy task of observing the world and trying to make sense of it. This, after all, is done by mere historians, political scientists, anthropologists, sociologists, and (heaven forbid) even journalists. Economists are loath to admit that they belong in such raffish company . . . .

The Bank of Sweden [which created the award in 1968] could remedy the defects of its bauble in two ways. The first would be to make it a more fitting memorial to Alfred Nobel: give it to people, not necessarily economists, who have improved a nation's—or the world's—economic well-being. Among Americans, why not ennobel former Federal Reserve Chairman Paul Volcker for ending double-digit inflation, Ralph Nader for making corporations more responsive to consumers, or engineer Jack Kilby for co-inventing the integrated circuit? Under this scheme, a few economists might occasionally win for genuinely significant contributions. The late Simon Kuznets, who helped create the national income and product accounts (the statistics that give us the gross national product) received a Nobel in 1971. He would have deserved a prize even under this more demanding standard.

The other approach would be to admit error. Hey, we goofed. Economics is not like chemistry, medicine, or physics. Portfolio theory is nice, but it's not comparable to the discovery of DNA, or even to good literature.

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ten poorly run and heavily upholstered with middle managers—were ripe targets for corporate raiders, who seized them and sold off some of their far-flung ventures. In 17 of the 62 hostile takeovers between 1984 and 1986, the authors note, more than half of the acquired conglomerates' assets were sold within three years—mostly to buyers in the same business.

The authors believe that the move toward more specialized firms should help the U.S. economy. In fact, they say, none of the misgivings economic forecasters had about the negative effects of takeovers were warranted. Retail prices did not rise, because, in most cases, the market share of the combined companies remained too small to affect prices. In 62 hostile takeovers, 26,000 workers lost their jobs—only 2.5 percent of the work force. And most post-takeover layoffs were targeted at redundant white-collar workers who could quickly find other jobs. Finally, the authors say, takeovers did not cause a drop in research and development (R&D). Most takeover targets were mature "cash cows," not R&D-intensive companies. Besides, they add, despite the media hype over hostile takeovers, the majority of corporate mergers in the 1980s were voluntary.

In the long run, the authors conclude, corporations have less to fear from takeovers that threaten to break them up than from the increasing number of state antitakeover laws that threaten to keep them together.

SOCIETY

After Math

"Whatever Happened to New Math?" by Jeffrey W. Miller, in *American Heritage* (Dec. 1990), 60 5th Ave., New York, N.Y. 10011.

In the mid-1950s a radical new way of teaching math to America's reluctant students was born, and was soon hailed as the greatest advance since Pythagoras's theory. A little more than three decades later, however, the term "new math" is virtually a profanity.

New math was born after World War II as a modest attempt to improve math education. Math classes of the day were deadly dull; textbooks were practically designed to kill off curiosity. Two-thirds of high school students quit studying math after their freshman year.

A new approach to learning math was needed. And in 1951, William Everitt, the Dean of the University of Illinois Engineering School, hired Max Beberman, a irrepressible 25-year-old high-school teacher, to develop it. Promising to make students passionate about polygons, Beberman tossed aside multiplication tables, long division, and the rest of the "old math" in favor of a "base system," "frames," and "truth sets." New math was built on twin pillars of pedagogy: "discovery learning" and "nonverbal awareness." Simply put, instead of memorizing rules and procedures, students used number lines, word problems, and graphs to "discover" answers to problems.

But it was the launching of Sputnik in 1957 that truly launched new math. At first limited to four laboratory schools, new math was quickly installed in 19,000 public schools, propelled by national hysteria over America's mathematic and scientific "inferiority" and by generous federal support. Recognizing that teachers had to be taught how to teach new math, Beberman traveled the country conducting workshops. Meanwhile, a group of Yale mathematicians, under the direction of Edward Begle, wrote a series of textbooks designed to introduce new-math instruction as early as kindergarten. New math had arrived. Sales of the textbooks jumped from 23,000 copies before Sputnik to 1.8 million in 1959.

But by the mid-1960s, writes Jeffrey W.