Cato Policy Report

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Air Travel: Safety through the Market

by Andrew Chalk

Flying is an extremely safe means of transportation. Statistics bear out the old saying that it is more dangerous to drive to the airport than to fly to another country. Nonetheless, safety is a major concern of air travelers. The latest International Airline Passengers Association survey of members shows that safety is the average respondent's paramount consideration in the choice of aircraft for flights of two hours or less (after which comfort begins to displace it by a narrow margin) and female respondents' paramount consideration for flights of any length.[1] And the experience of 1985, with 1,430 fatalities on scheduled commercial flights worldwide, is still fresh in consumers' memories. But most of those deaths occurred on foreign airlines; in fact, U.S. airlines had fewer fatalities in 1985 than in 1977, even though they carried 100 million more passengers in 1985. Overall, air travel is far safer than automobile travel and about as safe as travel by bus or train. (See Table 1 on page 12.) This article examines the question, Why is air travel so safe?

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Two arguments are generally invoked to explain the high incidence of safety in air travel. The first is that the regulation of airlines and aircraft manufacturers by the Federal Aviation Administration (FAA) is the principal mechanism that ensures safety. In an unregulated market, it is claimed, airlines and manufacturers would skimp on safety precautions in a battle to reduce costs, which would result in less safety than consumers demand. The FAA prevents the deterioration of safety, the argument continues, by specifying the kind of equipment that manufacturers must incorporate in aircraft and the maintenance and training procedures that airlines must follow. For obvious reasons, proponents of that view of air safety generally favor more regulation and more stringent enforcement. Indeed, one of the organizations that strongly advocates an increase in regulation, Ralph Nader's Aviation Consumer Action Project, evaluated the performance of the FAA in terms of the *number* of regulations that it had enacted.[2] In deference to the economic foundations of the first argument, this article refers to it as the "market failure view."

The second argument holds that although consumers lack the technical expertise to measure the *inputs* to safety provision, they can measure the *output*—fewer accidents. If consumers are informed about accidents for which an airline or an aircraft manufacturer is considered culpable, they can avoid riskier airlines and aircraft and choose safer ones. The crucial point is that airlines and aircraft manufacturers, anticipating the effect of such substitutions on the bottom line, take safety precautions. To put it differently, the potential consequences of accidents create incentives for the firms to prevent them from happening. This article refers to the second argument as the "market response view" to emphasize that an endogenous market mechanism is said to provide safety.

Without a doubt, the market failure view of air safety has far more support in Congress, at the FAA, and among journalists and legal scholars than the

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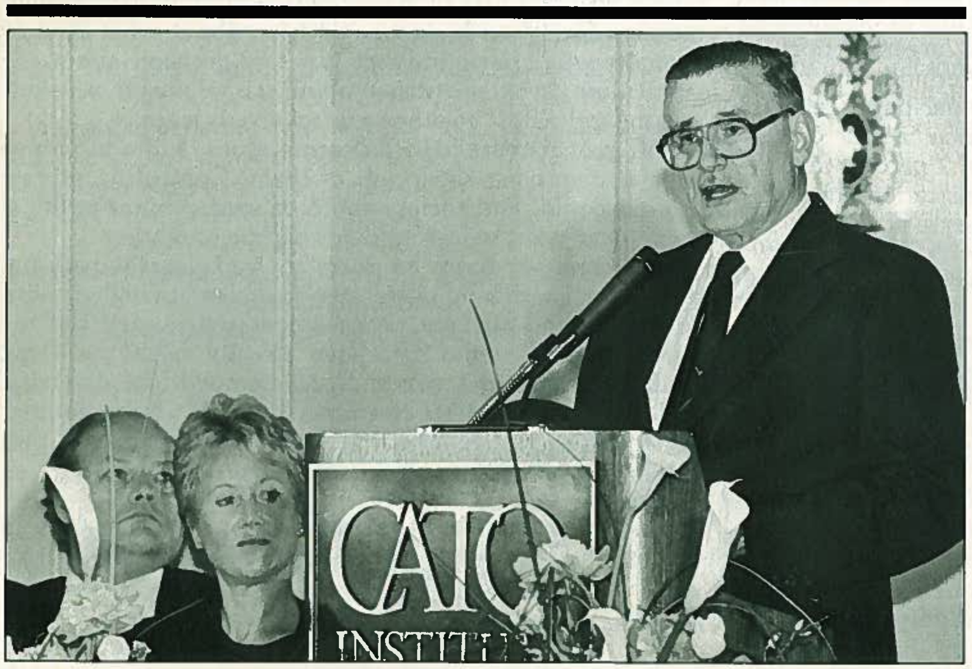
In This Issue



Nobel laureate and Cato Distinguished Senior Fellow James M. Buchanan delivers the major address at the Cato Institute's 10th anniversary dinner, attended by 600 people.

Baby-Boom Parents Need Choice in Education

Editorial

Now that the baby boomers are belatedly having children of their own, it's no surprise that education has become a hot national issue. The quality of education emerged as a major concern with the 1983 report *A Nation at Risk*, which charged that our schools faced "a rising tide of mediocrity" and that the United States was committing "an act of unthinking, unilateral educational disarmament."

One might have thought that this was a devastating attack on those who have been in charge of American education—governors, legislators, school administrators, and teachers—and that they would react defensively, attempting to refute the report's demonstrations of their failure. Instead, however, all of those groups welcomed the report with open arms, proclaiming, in effect, We have failed, so you must give us more money.

And that is essentially what happened. Governors, instead of reallocating their states' budget resources to fund education, discovered that voters would go along with a tax increase if it was designated for education. Baby-boomer parents seemed enthusiastic about paying higher taxes for education, their penchant for quality and their ambitious plans for their kids having overcome their economic conservatism.

But the new reform plans miss the point. A lack of money is clearly not the cause of the decline in the quality of education. The United States spends a larger portion of its GNP on education than Japan, Switzerland, and West Germany. While the inflation-adjusted per-pupil cost of the U.S. public schools doubled, the average SAT score fell by 90 points from 1963 to 1980, or about 1 percent a year. Much of the added cost was in administration. In 1950 there was 1 full-time educational employee for every 19 students. In 1978 the ratio was 1 administrator for every 9 students. The student-teacher ratio also fell, but not as much.

None of the reforms suggested by various commissions or passed by legislatures will solve the basic problem with the public schools. As John Chubb and Terry Moe argue in a forthcoming Brookings Institution study, *Politics, Markets, and School Performance*, the schools are subject to political control and many layers of bureaucracy.

> Public schools are almost always monopolists in their sectors and are largely sheltered from market forces. . . .[They] have a semi-captive clientele with little choice but to patronize the local monopoly. . . . Public schools are sheltered even further by the fact that their funding comes from political authorities via taxation rather than from parents as a fee for services rendered. Parents may complain about the quality of education, but they are not in financial control.

In short, it is no surprise that politically controlled monopolies provide poor service. But another method of control is available: the market. "It provides direct incentives for private schools to please the immediate consumers of educational services, students and parents," write Chubb and Moe. And virtually all the studies indicate that private schools provide a better education, even to students deemed failures by the public schools.

So if baby boomers really want their children to get a high-quality education, they should stop supporting tax increases and reform packages for the public schools. Instead, they should apply their antiestablishment, decentralist ideas to a search for ways to bring the benefits of competition to education. A voucher or tax credit system would dramatically expand the range of educational options available to parents at every income level and would give them the market clout of consumers instead of the helplessness of users of government services.

There is another reason baby boomers should want to replace educational monopolies with competing schools. Baby boomers revel in individualism and diversity; in the 1960s they revolted against conformity. But the public schools are the most conformist institution imaginable. From their conception as a way of Americanizing Catholic immigrants to the present day, the public schools have offered one program to millions of diverse customers. That is an inherent feature of a politically controlled monopoly. Instead of allowing each consumer to choose the school whose program best suits his needs, a monopolistic system requires society to make one decision about what kind of education to offer—and not just one decision about the curriculum, but one decision about school prayer, sex education, and a host of other controversial issues.

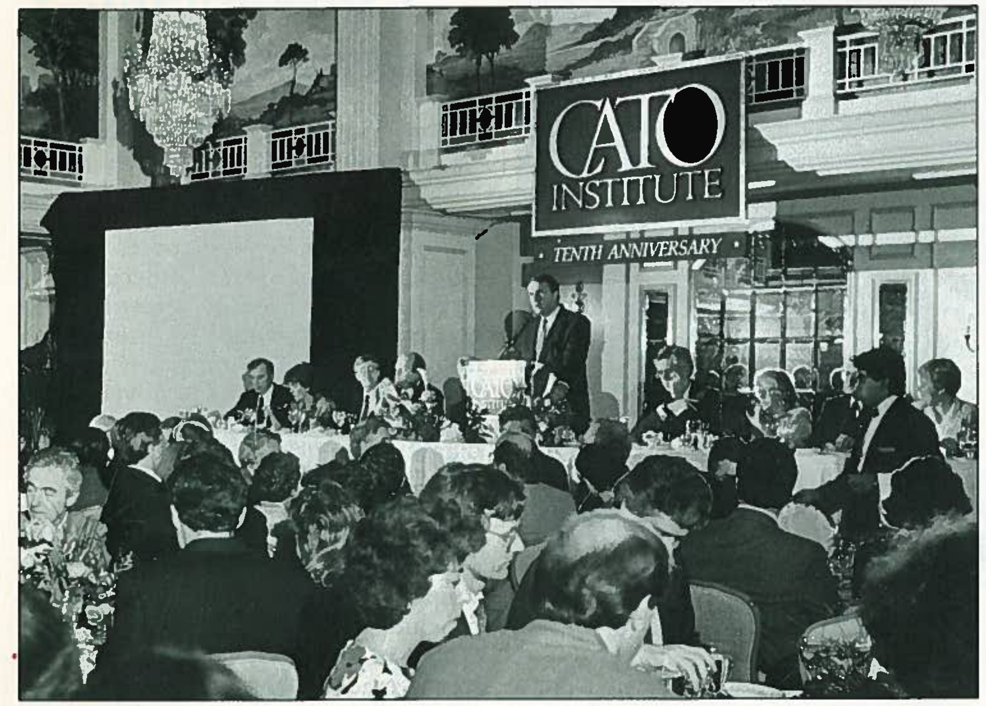
Different parents have different values, and a monopolistic system can't satisfy all of them. Competing private schools could, and society could be spared bitter political fights over what values students will be taught.

It is time for baby boomers to lead a great national debate on which kind of reform would lead to high-quality education and societal peace—more tax money for the bureaucratic systems that have already failed or a tax credit program that would foster competition, diversity, and responsiveness to consumer demand. Baby-boomer parents must realize how much they have at stake in that debate.

—David Boaz

Buchanan, Koch Speak

600 Guests Help Cato Celebrate 10th Anniversary



Cato president Edward H. Crane addresses the 600 participants who attended the Institute's 10th anniversary dinner.

Six hundred guests gathered at the Willard Hotel in Washington on May 21 for a celebration of the Cato Institute's 10th anniversary. Cato president Edward H. Crane expressed satisfaction that the success of the event had demonstrated Cato's increasing stature in the public policy community. Two days before the dinner the *New York Times* wrote that Cato "has managed to generate more activity and interest across a wider political spectrum than some of its more sedate competitors with much larger budgets."

The featured speaker at the gala event was Nobel laureate James M. Buchanan, a Distinguished Senior Fellow at the Cato Institute. In his speech, titled "Democracy and Constitutional Order," Buchanan discussed the need for constitutional restraints on government that would protect individuals against "the overreaching of the potential tyranny of majority coalitions."

Another speaker, Charles G. Koch, the chairman of Koch Industries and a member of Cato's board of directors since its inception, praised the scholars associated with the Institute for their effectiveness in changing the climate of opinion on political and economic issues. He also addressed other executives, saying, "I've long held the view that until the business community began acting on principle, began accepting the reality of world competition, and began recognizing that a true free market is in the best interests of consumers and producers alike, we would never be on the road to achieving the kind of society that is our heritage." Koch said that supporting such groups as the Cato Institute would be "the best investment we could make, both for our companies and for America's future."

Also speaking at the banquet were Crane and Cato chairman William A. Niskanen.

C-SPAN films Cato senior fellow Earl Ravenal's talk at Public Policy Day.

Praise from Friedman, Kinsley

A highlight of the banquet was the première of Cato's film, "Ten Years of Promoting Liberty," which featured interviews with Institute staff members and adjunct scholars as well as comments about Cato from Nobel laureate Milton Friedman, *New Republic* editor Michael Kinsley, supply-sider Norman

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Published by the Cato Institute, *Cato Policy Report* is a bimonthly review that provides in-depth evaluations of public policies and discusses appropriate solutions to current economic problems. It also provides news about the activities of the Cato Institute and its adjunct scholars. *Cato Policy Report* is indexed in *PAIS Bulletin*.

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CATO INSTITUTE

Lamm Delivers Jeremiad for U.S.

Hedrick Smith of the *New York Times* and Cato president Edward H. Crane talk with former Colorado governor Richard Lamm after Lamm's speech at a Cato Policy Forum.

I'm running for Paul Revere, not for president," said Richard Lamm, former Colorado governor and legislator, who proceeded to issue words of warning for America at a Cato Policy Forum. Lamm spoke of the growing dangers that stem from the nation's various "dysfunctional institutions," particularly its health care, educational, and legal systems.

Lamm said that since he first entered politics in 1967, four revolutions have taken place in America: it has changed from a continental economy to an international marketplace, its economic growth has slowed dramatically, the average age of its population has jumped from 24 to 31 (and is heading for 37), and it has seen huge technological advancements, particularly in the field of medicine—it is now possible to "keep a corpse alive."

One of the biggest problems America faces, according to Lamm, is the overall "litigiousness" of our society. A "legal sword of Damocles" is hanging over the nation's head, Lamm said, which he blamed primarily on the fact that American schools turn out 1,000 lawyers for every 100 engineers. By way of contrast, he noted that in Japan, the opposite is true, and society is "far more productive" as a result. "We rely too much on litigiousness to attempt to solve disputes," Lamm said, a practice that exacts a heavy price because it puts a damper on creativity and entrepreneurship.

Again contrasting the United States with Japan, Lamm mentioned that although health expenditures are much lower and fewer doctors are available in Japan, it is on the whole a healthier nation. After calling Medicare "a nightmare under the best of circumstances," he argued that instead of "bringing people back to life, spending taxpayers' money, so they can die again tomorrow," the system should concentrate on providing a level of health care that is adequate for everyone. Catastrophic health care for the elderly will "painfully and inevitably have to be backed away from," Lamm said.

Having admitted that he had more questions than answers, Lamm called for reforming the educational system, cutting the federal deficit, and possibly eliminating jury trials in civil cases. Though he said that he sees "warning lights flashing all over in this civilization" that signal the collapse of America, Lamm also said that his mission was "not to issue America's epitaph" but to reverse the harmful trends he perceives. "I don't think the current policies of either political party are going to keep America great." ■

Journal Looks at Constitution, Poverty Measures

The Winter 1987 issue of the *Cato Journal* contains articles on a wide variety of policy issues, from poverty to protectionism to South Africa to property rights in outer space.

John Weicher of the American Enterprise Institute explains how the federal government's mismeasurement of inflation has led to mistaken notions about the increase in the poverty rate and the existence of a decline in median family income. Richard B. McKenzie and Stephen D. Smith demonstrate that job losses in the textile industry are more a result of productivity increases than of imports.

Robert Higgs and Charlotte Twight conclude that "the history of the United States in the 20th century provides strong evidence that derogations from private property rights in a liberal democracy occur chiefly during national emergencies and that, once curtailed, private rights seldom regain their previous scope." During a perceived emergency the public and the courts acquiesce in the expansion of government powers, and when the emergency is over the government rarely relinquishes its new powers.

After examining the history of South Africa under Afrikaner domination, Nelson Reid and Gary Lowe call for the adoption of "a less powerful, more decentralized governmental structure without an overarching social vision or ideology combined with freedom of labor, contract, and investment" in order to bring about "political freedom, civil rights, and long-term stability as a more just and non-racialist society."

The *Journal* issue also includes articles by Peter Trapp on West German economic policy, Martin Katzmann on environmental risk management, Charles W. Baird on legal obstacles to labor-management cooperation, Joel Scheraga on outer space, and William F. Shughart II on antitrust law.

The *Journal* is edited by economist James A. Dorn. Subscriptions are $18.00 a year. ■

Licensing Criticized

Gilder Calls for Free Trade

The chief threat to U.S. competitiveness today is U.S. industrial policy. Virtually every congressional and bureaucratic intervention in the economy hurts the ability of U.S. companies to compete internationally," said George Gilder at a recent Cato Policy Forum.

George Gilder at Cato Policy Forum.

The new immigration law, Gilder said, "will restrict our access to our most valuable source of new manpower and technical expertise." He estimated that 20 percent of the workers in Silicon Valley are illegal aliens. National-security export controls smother high-tech firms in red tape. The Reagan administration's semiconductor price-fixing agreement with Japan will make most U.S. computer firms pay twice as much for memory components as their Japanese rivals.

Gilder, author of *The Spirit of Enterprise* and the forthcoming *Microcosm*, said, "The only way nations can increase their wealth and power in the current age is by attracting it—by opening their borders, lowering their tax rates, emancipating their workers and entrepreneurs, deregulating enterprise, promoting education and research, protecting property rights, and fostering the free movement of money, goods, and men."

He urged politicians to stop worrying about "an utterly spurious balance of trade" and let American workers produce wealth.

At another recent forum Tulane University business professor David Young, author of Cato's recent book *The Rule of Experts: Occupational Licensing in America*, discussed his research findings. Young said that licensing has served largely to protect the incomes of professionals while raising the prices charged to consumers. There is no evidence that licensing has served to make higher-quality goods and services available, he said.

Alan Morrison, director of the Public Citizen Litigation Group, agreed with much of Young's indictment of the licensing process. He cited the "Cadillac effect" of licensing, which is to mandate that if consumers can't afford the highest-quality source of a service, they do without the service entirely. ■

S. David Young, author of *The Rule of Experts: Occupational Licensing in America*, talks with participants after speaking at a Cato Policy Forum.

Du Pont v. Kemp

Ferrara Backed, Attacked

Peter Ferrara's plan for Social Security reform is receiving increasing attention this year. Republican presidential candidate Pete du Pont has made a modified version of Ferrara's plan a mainstay of his platform. Du Pont's proposal to allow workers to put their payroll tax contributions into an Individual Retirement Account in return for reduced Social Security benefits at retirement was declared "the first idea of the 1988 campaign" by the *Washington Post*.

Ferrara's plan got a cooler reception from rival presidential candidate Jack Kemp, who said, "Social Security 'ain't broke,' and we don't need to fix it" in a speech to the American Association of Retired Persons. Kemp denounced "social libertarians of the right and the left" who would "scale back Social Security benefits for the family." Du Pont responded that he was "surprised to see Jack defending the status quo" and challenged Kemp to debate him on Social Security reform.

Ferrara's plan is also the subject of a new book, *Social Security: A Critique of Radical Reform Proposals* (Lexington Books, 1987), edited by Charles W. Meyer of Iowa State University. Although earlier "radical" reform proposals by Arthur Laffer and David Ranson, Milton Friedman, and James M. Buchanan are cited, the book is devoted to an examination of Ferrara's plan, which Meyer calls "the most thorough and well-conceived of the phase-out proposals."

In one of the essays in the book, Bruno Stein of New York University criticizes Ferrara's economic arguments but concludes, "The value of Ferrara's work is that it draws our attention to the need for reform. It does this dramatically, and forces us to rethink what we once took for granted, and to face a reality that is painful."

In the final essay, Meyer concludes, "Even if we reject a phase-out, we would be well advised to consider a phase-down. Ferrara's [1985] plan for a modest beginning provides a promising blueprint for less radical reform."

Cato Institute president Edward H.

(Cont. on p. 9)

The Risky Business of Foreign Policy

by Richard J. Dennis

As a professional futures trader, I am in the business of developing strategies that minimize risk relative to reward. I have pursued that career with considerable success for two decades. About a decade ago I began to pursue public policy interests as well. I founded the Roosevelt Center for American Policy Studies and engaged policymakers and politicians to increase my understanding of their profession. In those dual pursuits I have observed a common thread of misguided approaches to and analyses of risk management.

In trading, it is crucial to be rigorous in determining what kinds of statements about markets make sense. Even most professional traders act on premises that are unexamined, untested, anecdotal, and highly intuitive. It is much harder to make valid predictions about markets than traders generally assume, and that misplaced confidence in their ability to know causes them to undertake losing strategies and assume needless risks. I have learned to be skeptical of complex, hard-to-verify assertions about markets and have found that I am on firmer ground when I base my decisions on simple, testable premises.

Even with the correct methodology, traders can fail if their ideas are untimely. Conventional strategies are often stale extrapolations from the past whose effectiveness is undermined by changed circumstances and new environments. Winning strategies can be developed only when traders are contrarian and willing to reevaluate the conventional wisdom, but too often they fight the last war.

Foreign policy success is inherently more difficult to achieve than success in market prediction. Consequently, it is even more important for policymakers to rid their analyses of fundamental flaws. A hard look at U.S. foreign policymaking has convinced me that it suffers from some of the same maladies that I know to be counterproductive in my other area of endeavor. I have succeeded in trading because my strategies have been rigorous, simple, and contrarian enough to remain timely. U.S. foreign policymakers must adopt strategies with those characteristics because excessive risk in the nuclear age is potentially calamitous.

Richard J. Dennis is managing partner of C&D Commodities, president of Richard Dennis & Company, and founder of the Roosevelt Center for American Policy Studies.

Problems with U.S. Foreign Policy

We have placed excessive confidence in grand historical analogies instead of considering simple but important factors such as geography. Because the two world wars started in Europe, we have developed a Europe-centered strategy of forward defense and the containment of communism while neglecting our relationships with Mexico and our other hemispheric neighbors. Historical lessons derived largely from the Second World War caused the United States to form an elaborate system of entangling alliances just when circumstances—especially the emergence of nuclear weapons—called for greater political and military independence. Much like suboptimal traders, we have zigged when we should have zagged, and we have rushed in where angels (and rigorous skeptics) would have feared to tread. Too much strategic confidence and excessive estimates of the number of objectives that are of vital interest to the United States have combined to create costly overcommitment and immoderate risks in our management of foreign affairs.

> **"U.S. foreign policymaking suffers from some of the same maladies that I know to be counterproductive in business."**

The same sense of policy drift pervades debates on the U.S. defense budget. The amount we spend ought to be the amount that makes sense, whether it is higher or lower than previous figures. The last marginal dollar of our military expenditure should increase our defense capabilities enough for us to consider the expenditure a better one than alternative uses for that dollar. What we refuse to pay for and instead finance through a deficit is almost by definition extravagant. And our unrealistic foreign policy leads to unnecessarily high levels of defense spending.

After the United States remained passive in the face of adverse international events and was still drawn into two world wars, U.S. policymakers concluded that America must become an active world power. We formed alliances and said that we would treat threats to our allies as threats to our vital interests. Advocates of collective security assumed that such alliances could have prevented both world conflicts and would help prevent future wars. At the same time, nuclear weapons became an increasingly critical factor in international relationships. Our alliances proliferated as our perceived vital interests expanded, but our true vital interests were narrower because the U.S. nuclear arsenal could deter an attack on our homeland. Our interventionist foreign policy was untimely at its inception, and it is even more inappropriate now. Nuclear self-sufficiency has made security ties and alliance-centered internationalism both unnecessary and untenable.

When we consider the value of strategies that are purported to enhance our national security, we should pause to ask to what extent events are predictable and whether the analogies that have been used to justify the commitment of our lives, our fortunes, and our sacred honor constitute sufficient reason to act in the manner prescribed. Most 20th-century philosophy has been devoted to clarifying the meaning of knowledge and establishing ground

rules for making valid statements about reality. What can be known and how can we come to know it? How can we judge the reliability of predictions? Finally, are there lessons of history? Are we condemned to repeat mistakes if we do not understand history?

The impossibility of rigorous testing may undermine the validity of key propositions in the social sciences. For example, it is disturbing that leading economists cannot even agree on whether increasing the money supply will raise or lower interest rates and that so many economic predictions (including some based on elaborate models) go awry. When policymakers use historical "lessons" to predict political outcomes, even less confidence is justified. Prediction is a prerequisite for political action, but valid predictions are hard to achieve, especially when distant and alien cultures are involved. Under such conditions, the probability of error increases dramatically.

The most conservative case against historical explanations is also a cogent one: they entail no empirical experiments, few limiting cases, no models, no aggregate data, and little acknowledgment of the mass of uncontrollable variables. We should be thoroughly skeptical of historically derived assertions about our national interests, particularly when the predictions are complex and their focus distant. Facile armchair speculation will not do when so much is at stake.

Separate from the problem of ascertaining our vital national interests is that of pursuing them efficiently. Human folly, complex variables, and changing circumstances all devalue national strategies by lowering the net benefits considerably. Cuba, Iran, and Vietnam are recent instances of our failure on a grand scale to translate perceived interests into real gains.

Vital Interests

What elevates a national concern to the level of a vital national interest? The definition of a vital interest must be directly linked to our nation's territorial and political integrity. The dangers to our survival as a free people are relatively remote. The existence of a large and sophisticated American nuclear arsenal minimizes the chance of a nuclear attack on our homeland. Because the Atlantic and Pacific oceans still afford considerable protection, a conventional invasion (the *Amerika* or *Red Dawn* scenario) is equally improbable. An internal totalitarian takeover is even less likely—unless we undermine our democratic values in the course of executing the role of a world superpower. Finally, the most frequently mentioned danger—that the United States will become a beleaguered democratic island in a totalitarian global sea unless we preserve and protect our allies—is overdrawn. Those who cite it overrate both the potential appeal of the totalitarian model and the ability of the principal totalitarian power, the Soviet Union, to engage in expansionism without provoking countermeasures by the numerous nations in its path. It is extremely unlikely that the mere absence of a far-flung U.S. political and military role would cause major powers such as China, Japan, Britain, France, and West Germany to supinely accept Soviet domination. For those reasons, the United States can afford to define its vital interests rigorously and narrowly.

> **"The amount we spend on defense ought to be the amount that makes sense, whether it is higher or lower than previous figures."**

The importance of avoiding obsolete considerations and taking into account currently relevant factors cannot be stressed enough. A change in even one major variable can justify or even require a change in policy. The United States entered World War II when it became vulnerable to conventional attack and our vital interests required that we stop relentless aggressors before they got to us. However, if the United States had possessed a nuclear arsenal, we would in all likelihood have been able to prevent the German conventional juggernaut from attacking us without entering the war. Any decision to participate would then have depended on secondary considerations such as what we were willing to risk in the service of democratic values elsewhere in the world. A vital U.S. interest would not have existed.

Most U.S. policymakers greatly exaggerate our vital interests. The cost of acting as if there were a laundry list of vital interests whose contents we could ascertain with scientific precision is very high; it takes the form of military overspending, risk-increasing alliances, and the erosion of democratic values at home. Even Charles Krauthammer, a supporter of superpowership, concedes:

> The costs of superpower status are many. Economically, leading a vast alliance is a drain on American resources and energies. In social terms, superpower responsibilities inevitably encourage the centralization and militarization of authority. (Defense considerations, for example, drive everything from university education to space exploration to laser research.) And politically, imperial responsibility demands imperial government, which naturally encourages an imperial presidency, the executive being (in principle) a more coherent and decisive instrument than its legislative rival.[1]

Risk and Strategy

Even before the advent of nuclear weapons in 1937, Aldous Huxley wrote: "War is so radically wrong that any international agreement which provides for the extension of hostilities from a limited area to the whole world is manifestly based upon unsound principles."[2] Huxley's observation is even more pertinent in the nuclear age.

Defenders of America's current strategy contend that it does not increase our risks. After all, they point out, we have avoided world war for more than four decades. As a trader might ask, why kill a winning trade? But such optimism is founded on a potentially lethal illusion. For example, our NATO strategy of forward defense links any kind of war in Europe with the threat of global thermonuclear war; the as-

(Cont. on p. 8)

Risky Business (Cont. from p. 7)

sumption is that no aggressor would risk incurring that outcome by disturbing the peace of Europe.

That strategy is a classic example of playing the short odds. It is not hard to eke out relatively small gains at a remote risk of huge losses (in this case, a thermonuclear war). But there is no intrinsic advantage in playing the short odds except that one appears smarter until one is flattened. Why try to win with a killer strategy? Forty years is too small a sample on which to base conclusions when success is purchased only through the incalculable risk of Armageddon. Indeed, even if our strategy worked for 100 more years and then failed, it would go down as the worst strategy in history—except that it might end history.

Policymakers have been unwilling to define the risks and rewards of our entangling alliances strictly in terms of the nation's safety and political integrity. We can take risks for any number of national concerns, but we must not raise those concerns to the level of vital interests. The survival of the Western European democracies and Japan is sufficiently worthwhile to us to merit a considerable expenditure. Unfettered international trade is very important to us as well. But they are not worth measurably increasing the probability of our involvement in a thermonuclear war; only the overarching goal of surviving as a free people is worth that risk. In essence, our policy of relying on extended deterrence—of coupling our survival to that of other nations—lowers the probability of any kind of war between the Soviet Union and our allies by raising the probability of nuclear war between the Soviet Union and the United States.

That is a poor tradeoff, especially when we have sufficient military power to deter an attack on our homeland unilaterally. The *Red Dawn* scenario notwithstanding, a Soviet takeover could occur only if the United States refused to use nuclear weapons in its own defense. But if that would be the case—which is highly unlikely—alliances are even more irrelevant. A country unwilling to defend itself with nuclear weapons when attacked would never respond to an ally's plea.

The policy of coupling the United States' security to that of Western Europe makes sense only if one assumes that a war in Europe would be merely a prelude to a global thermonuclear war. In making that assumption, U.S. leaders may be confusing cause and effect. There is a high probability that a war in Europe would lead to a global thermonuclear war precisely because our security is coupled to that of our allies. The policy of placing Americans in the road and daring the Russians to

> "A laundry list of vital interests leads to military over-spending, risk-increasing alliances, and the erosion of democratic values at home."

run them over should give way to a deterrent that is irrevocably severed from U.S. nuclear weapons and increasingly a function of European conventional forces.

The Need for an Alternative Strategy

We have ignored Einstein's admonition to change our way of thinking in the nuclear era. It is difficult for us to comprehend that the searing lessons of the two world wars mean little in the nuclear age—that nuclear weapons will forever be with us and will forever devalue triumph by force. We ought to stop preparing for the previous war. It is far past the time to formulate a more credible and effective strategy that does not risk Chicago in the defense of Munich. If our stated reliance on our current strategy is genuine, we are incurring insane risks. If it is a bluff, we are doing ourselves a disservice by lessening our credibility about our willingness to defend our soil, and we are doing our allies a disservice by lulling them into a false sense of security. Our new strategy should require neither excessive nuclear risks nor an unjustified and unaffordable buildup of conventional U.S. forces overseas.

Western Europe and Japan needed some protection in the postwar rebuilding years, but it is difficult to argue that they still do. What sense does it make for us to pay for a strategy that they either (1) do not believe in enough to implement themselves or (2) do not want to pay for? (They can certainly afford to.) Our current policy increases the risk of nuclear war and bankrupts the U.S. treasury for no corresponding reward. The only conceivable benefit of our being predominantly responsible for the defense of the West is an emasculated and denuclearized Germany and Japan (oddly enough, a greater benefit to the Soviets than to us).

It is time to consider the possibility that a multipolar world would be safer. Defense planners' nightmare about "bolts from the blue" would be less likely to be realized if the aggressor had to send many bolts at once. It has been suggested that the Soviets might get paranoid if that situation prevailed, but they did not crack as China and France became independent nuclear powers. World conquest by the Soviet Union, ever so unlikely now, would be even less imaginable with a multiplicity of major powers.

If the United States was to withdraw its European nuclear umbrella, Great Britain and France might provide one; if they did not, nuclear proliferation on the continent might result. But the acquisition of nuclear weapons by mature First World powers currently under another nation's nuclear protection (by West Germany, for example) should be feared less than the acquisition of such weapons by unstable Third World countries. Proliferation can pose dangers, however, especially if it prompts near-nuclear countries to step up their programs. One way in which U.S. officials have attempted to limit nuclear proliferation is by extending security guarantees to other countries. But the cost alone (never mind the added risks) makes that strategy increasingly unworkable. (Imagine the cost of several NATO-type arrangements.) It is possible that First World nuclear proliferation would catalyze proliferation elsewhere, but security guarantees are no solution. To rigidly insist on no proliferation is to let the best be the enemy of the good. In any case, can an alliance system in which one partner exports defense and gets a huge trade deficit in return while the other partners grow increasingly rich but are militarily impotent be a workable long-term solution? The evidence suggests that it cannot.

> "Our national strategy should distinguish between national concerns (of which there are many) and vital interests (of which there are few)."

Conclusion

The nation's ever-expanding number of allegedly vital interests and its ever-less-credible threats to blow up the world over them point to policy premises that are severely disordered and in need of rethinking. We must become less actively involved in the policing of the world, because our ability to predict the effects of our actions is almost nil; because our present course is financially disastrous; and because nuclear weapons have made miscalculations more catastrophic and inaction both safer and more palatable. Any national strategy to which we commit ourselves should be based upon widespread consent, should be explicable in simple, direct terms, and should be executable by simple, direct means. It should distinguish between national concerns deserving moderate effort (of which there are many) and vital interests deserving intense action (of which there are few). Because our survival is assured, we should be strategically independent and have friendships in the world, not alliances. Reactive, passive, and flexible positions are appropriate.

Four principles should be recognized: (1) American nuclear weapons are for the defense of Americans, their territory, and their political freedoms; (2) geography, not overblown historical analogies, is the proper determinant of the extent to which we should be involved in the affairs of other nations; (3) vital interests, not less-urgent concerns, give rise to valid national strategies; and (4) skepticism and flexibility, not credulousness and a penchant for entanglement, govern useful debates about foreign policy. ■

Footnotes

[1]Charles Krauthammer, "The Price of Power," *New Republic*, February 9, 1987, p. 23.

[2]Aldous Huxley, *Ends and Means* (London: Chatton & Windus, 1937), p. 110.

Cato president Edward H. Crane (center) talks with Commissioner Fred Andre of the Interstate Commerce Commission and Charles Murray of the Manhattan Institute at a Cato reception.

Ferrara Plan (Cont. from p. 5)

Crane said, "We are delighted at the increasing recognition of Peter Ferrara's important and innovative work on Social Security. We look forward to participating further in the national debate over how best to provide retirement security, and we are especially pleased to see presidential candidates joining this debate at last."

Ferrara's plan is presented in three books published by the Cato Institute, including *Social Security: The Inherent Contradiction* (1980, $20.00) and *Social Security: Prospects for Real Reform* (1985, $8.95). ■

Anniversary (Cont. from p. 3)

Ture, and ACLU attorney Barry Lynn, among others.

Washington Post editorial writer Michael Barone says in the film, "The Cato Institute has done a marvelous job of bringing forward a lot of new ideas and venturesome ideas, many of which have made a real impact." Charles Murray of the Manhattan Institute, author of *Losing Ground*, says, "If there is going to be a major change [in public policy], it's going to be because a new generation has bought into a very different way of looking at the world. And the only way that's going to happen is by presenting genuinely new ideas. And that's what Cato does best."

Federal budget director James C. Miller III, Cato chairman William A. Niskanen, and Nobel laureate James M. Buchanan, a Cato Distinguished Senior Fellow, talk before anniversary dinner.

Morgan Reynolds criticizes federal labor laws.

Catherine England of Cato discusses banking regulation.

Economic satirist Rob Kolson of Chicago entertained the crowd with jokes and songs about Milton Friedman, Paul Volcker, and other humorous subjects.

Charles G. Koch, chairman of Koch Industries and a member of Cato's board of directors, discusses the need for business support of free-market institutes.

Distinguished guests at the reception and banquet included Sen. Phil Gramm, Federal Reserve Board members Robert Heller and Wayne Angell, Office of Management and Budget director James C. Miller III, Rep. Thomas Petri, Rep. Ben Gilman, Rep. Alex McMillan, federal judges Danny J. Boggs and Douglas Ginsburg, George Mason Law School dean Henry Manne, Securities and Exchange Commission chairman John Shad, and International Trade Commission chairman Susan Liebeler.

A number of Cato Sponsors from around the country also attended, and their role in bringing about the Institute's increasing stature was gratefully acknowledged.

Public Policy Day

The next day Cato presented its second annual Public Policy Day, a series of 11 lectures on policy issues by its adjunct scholars and others. Speakers included Niskanen on protectionism and competitiveness, Murray on the problems with workfare, and journalist Paul Weaver on "The Decline of the Corporate State." Several Cato authors delivered talks based on their books, including Morgan Reynolds of Texas A&M University, author of *Making America Poorer: The Cost of Labor Law*, and Stephen Macedo of Harvard University, author of *The New Right v. the Constitution*. Other speakers included Richard Rahn, chief economist at the U.S. Chamber of Commerce, and Cato senior fellow Earl Ravenal.

The Public Policy Day lectures were nationally televised several times by C-SPAN. ■

Economic Reform in USSR Will Lead to Political Liberalization

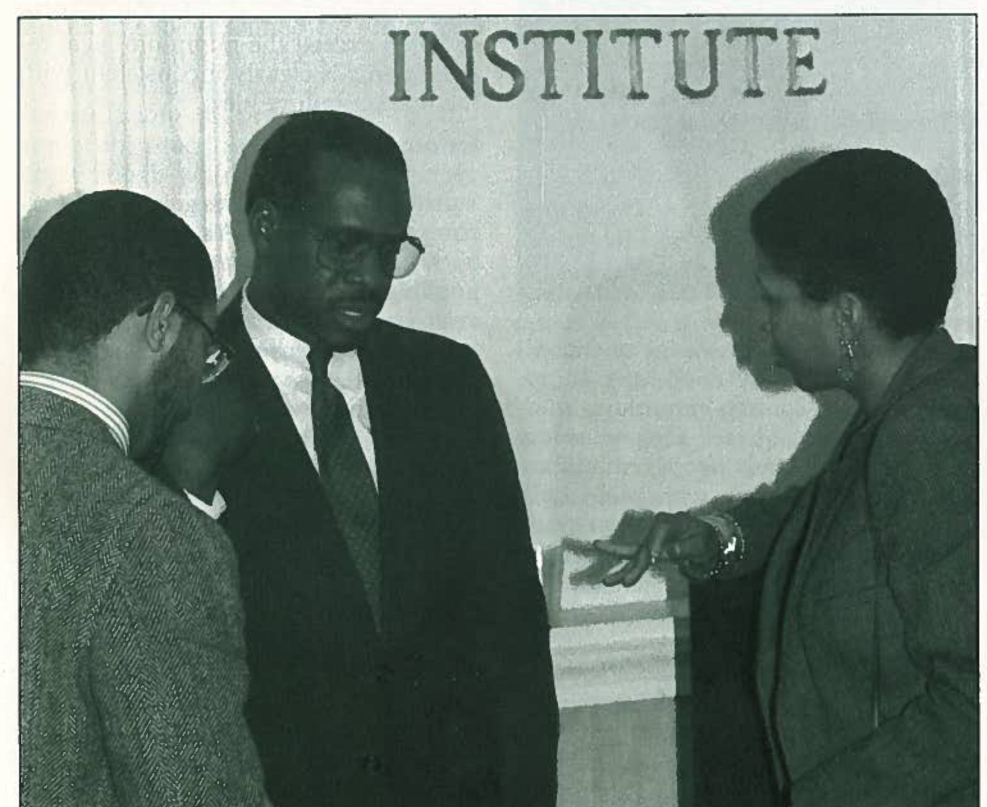
The United States should encourage economic and political liberalization in the communist world, says a new policy study released by the Cato Institute.

Political scientist Thomas Magstadt writes, "Allowing pockets of capitalism to develop and grow is bound to bring into being an entrepreneurial class whose interests are at odds with those of a privileged party elite determined to perpetuate its power monopoly."

Magstadt says that the United States could encourage such reforms by extending most-favored-nation trading status to the Soviet Union and Eastern European countries and reducing export controls. Such measures could encourage the Soviet economy to become fully involved in the world economy, compel the Soviet Union to move away from central planning so that its workers and managers could produce higher-quality goods for the world market, and expose Soviet consumers to Western goods.

Magstadt writes, "Communist leaders are caught in a predicament. If they abandon their market-oriented reform efforts, they will guarantee prolonged economic stagnation and will have to watch their societies slip further and further behind those of the West. Yet if they press for reform in the economic arena, they will unleash powerful pressures for a corresponding liberalization of their nations' political structures and will ultimately endanger the monopoly of power held by the Communist party."

Magstadt's paper, "Communism between Marx and the Marketplace: Implications for U.S. Foreign Policy," is part of the Cato Institute's Policy Analysis series and is available from the Institute for $2.00. ■



Equal Employment Opportunity Commission chairman Clarence Thomas talks with participants at a Cato Policy Forum after his speech on "Civil Rights: The Individualist Agenda."

Cato, Fraser Back Free Trade Pact

A free trade agreement would yield major benefits for both the United States and Canada, says a study published by the Cato Institute and the Fraser Institute of Vancouver.

Cato chairman William A. Niskanen, the author of the study, writes, "It is disturbing that such an extraordinarily complicated process is needed to permit two firms to trade with each other across a national border. Henry George observed that 'the lesson of the protectionists is to do to ourselves in peacetime what an enemy attempts to do to us in wartime.' The United States and Canada have a long history of friendly relations; we should approach the [trade] negotiations as friends. Only mutual trust can lead to mutual benefits."

Niskanen outlines six provisions that should be included in the agreement, including the elimination of all tariffs within 10 years, a gradual reduction of subsidies on exports, a national treatment rule for services, investment, and government procurement, and a commitment to undertake negotiations on unresolved issues.

Already, Niskanen points out, "the United States and Canada are the world's largest trading partners," and most U.S.-Canada trade is duty-free. According to his study, a reduction of the remaining trade barriers would lead to an increase in economic efficiency and GNP in both countries.

The study, "Stumbling toward a U.S.-Canada Free Trade Agreement," is no. 88 in the Cato Institute's Policy Analysis series. ■

"Assessing the Reagan Years"

A Cato Institute Conference
October 1–2, 1987
Washington, D.C.

Speakers include *William A. Niskanen, Murray Weidenbaum, Clarence Thomas, Norman Ture, Jerry Jordan, and Lawrence Kotlikoff.*

Air Travel (Cont. from p. 1)

market response view.[3] At almost every congressional hearing on air safety, a large number of witnesses and committee members appear to assume that a conflict between safety and profitability is inevitable. The following statement, offered by a member of Congress in a hearing before the House Committee on Public Works and Transportation, is typical:

> They are corporations and they've got one duty. Their duty is to their shareholders, to make a profit. I've got no argument with that. The FAA should make sure that they don't do that at the cost of safety to the flying public. . . . If they can't come up with a plane that's safe and profitable, then they ought to get into some other line of business in my judgment. But I definitely don't think it should be the FAA who should worry about that.[4]

Why is the market failure view so prevalent? Is there any justification for its widespread and deeply ingrained support? An extensive search of the literature from Congress, the FAA, and individual commentators yielded a rather astonishing finding: proponents of the market failure view, even those with technical skills and access to relevant data, have cited remarkably little hard evidence to support their claim that the FAA, not the market, deserves credit for being the principal source of the high incidence of safety in commercial air travel.

To assess how well regulation has worked, I studied the FAA's rulemaking, enforcement, and certification activities to see whether I could demonstrate that the agency has had a major impact on air safety. The analysis that follows focuses on each of those regulatory activities.

FAA Provision of Safety

Rulemaking

Rulemaking is the FAA's principal regulatory activity. Although some of the agency's Federal Air Regulations (FARs) apply only to a particular model of plane or a particular carrier, others have a broader scope. Some of the latter mandate the use of specific equipment; others specify minimum standards and thereby set a floor below which airlines and aircraft manufacturers cannot go. A surprising early finding was a pattern of systematic overcompliance with FARs that set minimum standards for large jet aircraft. The airlines regard them as "bare bones" requirements and typically exceed the FARs on instrumentation and navigation equipment and on maintenance, training, data recording, and flying procedures.

Likewise, aircraft manufacturers have pushed the technological frontier years ahead of FAR standards. The Boeing 747 and all of the third-generation airliners, including the McDonnell Douglas MD-80, the Boeing 757, and the Boeing 767, exceed the FAA's fire prevention standards, which were established in 1952. Although the reasons for those instances of overcompliance vary, that the airlines and aircraft manufacturers are incurring higher costs in order to exceed the minimum legal requirements is clearly inconsistent with the market failure view.

Table 1

Passenger Deaths and Death Rates, 1978–85

Year	Passenger Cars and Taxis: Deaths	Passenger Cars and Taxis: Rate[a]	Buses: Deaths	Buses: Rate	Railroad Passenger Trains: Deaths	Railroad Passenger Trains: Rate	Scheduled Airlines: Deaths	Scheduled Airlines: Rate
1978	28,035	1.26	28	0.03	13	0.12	175	0.09
1979	27,713	1.28	28	0.03	6	0.05	371	0.17
1980	27,339	1.29	42	0.05	4	0.04	28	0.01
1981	26,410	1.25	41	0.05	4	0.04	22	0.01
1982	22,859	1.02	32	0.04	9	0.08	218	0.10
1983	22,739	0.98	49	0.04[b]	4	0.04	17	0.01
1984	23,373	0.98	37	. . .	12	0.10	39	0.02
1985	. . .	. . .	. . .	. . .	3	0.03	201	0.07

SOURCE: National Safety Council, *Accident Facts* (Chicago: NSC, 1986), p. 77.
[a]All rates indicate the number of deaths per one million passenger miles.
[b]Rate not comparable to that of prior years due to a change in the school bus passenger mileage estimating procedure.

> "Advocates have cited remarkably little hard evidence for the claim that the FAA, not the market, deserves credit for the safety of air travel."

Enforcement

Although the airlines generally overcomply with the FAA's regulations on both equipment and procedures, it is possible that without a central agency as an enforcer, their day-to-day operations would slip below legal standards. The FARs are like any other set of rules—they are only effective to the extent that they are enforced. It is therefore necessary to assess the effectiveness of FAA enforcement as a safety mechanism. The following discussion analyzes the theory and practice of that agency activity.

According to the market failure view, airlines and aircraft manufacturers have no interest in safety per se; the likelihood of their compliance with a particular rule depends only on the expected costs and benefits of violating it. Proponents of the market failure view therefore regard stringent enforcement and severe penalties as successful regulation. The FAA itself has expressed that philosophy during congressional hearings.

In practice, however, the agency's enforcement deviates substantially from that hard-nosed approach. The FAA rules that affect air carriers, for instance, are enforced by approximately 210 inspectors (of whom approximately 60 deal solely with avionics). They are responsible for monitoring the work of 50,000 mechanics employed by over 100 airlines that operate 3,000 aircraft. An instructive example is American Airlines' central maintenance facility in Tulsa, where 3,800 mechanics perform round-the-clock maintenance on the carrier's whole fleet as well as contracted maintenance for other carriers. The FAA employs only six full-time inspectors at the Tulsa base. Most of their time is spent checking the carrier's logs for discrepancies between intended and actual maintenance procedures; the time spent monitoring maintenance work in progress, testing procedures, and other variables is minimal. For that reason, it is likely that the agency's enforcement efforts have little effect on air safety.

A more complete picture of the FAA's impact can be obtained by analyzing its output—that is, when it discovers a safety violation, does it levy penalties sufficient to prevent the repetition of the practice? The principal penalty through which the FAA attempts to ensure compliance with its rules by air carriers is fines. An economically rational deterrence policy would establish higher fines for more serious offenses. The fine for breaking a given rule would be sufficient to internalize the external costs that would be borne by others as a consequence of the violation of that rule. But the FAA's deterrence policy falls short of being economically rational; the maximum fine that the agency can levy is $1,000, the amount that was established in 1938. Even though the agency has adopted the practice of cumulating fines as if an offense had occurred each day (for example, a defective fire extinguisher last checked five days previously would incur a fine of $5,000), the arbitrarily low ceiling, coupled with the minimal inspection forces, severely blunts the effectiveness of its sanctions for safety violations.

Besides imposing low fines, the agency indicts very few airlines and imposes very few fines. Table 2 shows the FAA's revenue from fines and the number of fines from 1971 to 1981. The agency's average annual fine revenue was approximately $207,380 (less than the revenue an airline could obtain by flying a full jumbo jet from coast to coast). Fine revenue escalated dramatically in 1979, the year in which a McDonnell Douglas DC-10 crashed in Chicago, after which the usually inconspicuous FAA became the center of press and government attention. The large increase in fine revenue reflects four large fines, two of which were imposed on airlines that flew DC-10s.[5] When public interest receded, the FAA's fine revenue returned to its historic rates. The agency levied an average of only 89 fines a year; the average fine was only $2,333. Observers, especially advocates of the market failure view, have noted that such an enforcement record has hardly created an incentive for airlines to comply with FAA regulations. Partly in response to such criticism, the FAA has levied some large, highly publicized fines on prominent airlines in recent years.

Table 2

FAA Fine Revenue from Certified Air Carriers, 1971–81

Year	Amount ($)	Number of Fines
1971	29,950	33
1972	109,400	84
1973	139,575	134
1974	91,150	92
1975	89,375	100
1976	82,000	81
1977	162,000	94
1978	62,000	66
1979	1,318,000	77
1980	133,000	130
1981	64,759	87
Total	2,281,209	978
Ann. Avg.	207,383	89
Avg. Fine	2,333	. . .

SOURCE: FAA, "Enforcement History," various years.

Certification

Although it is widely known that every new type of aircraft must be certified by the FAA, few people know exactly what the process involves. It is widely believed that the FAA rechecks every detail of an aircraft's design and reenacts the thousands of engineering tests performed by the manufacturer, but that is not so. The FAA does test-fly a plane immediately before commercial production, but during the design stage the agency is involved only at arm's length. The hundreds of systems on an aircraft are checked by employees of the manufacturer known as designated engineering representatives (DERs). They operate under a kind of honor system, and their approval constitutes official certification, although the FAA can reject a design at a later date. Likewise, the manufacturer performs all of the engineering tests and submits the results to the FAA.

In 1980 a blue-ribbon panel that the National Security Council had convened to assess the FAA's certification procedures concluded that "the present quality of aircraft designs is satisfactory largely because of the proficiency of the companies and the designee systems."[6] That comment reflects not only the distance of the regulators from the design process but also the panel's finding that the aircraft manufacturers had more state-of-the-art knowledge than the FAA.

The evidence on rulemaking, enforcement, and certification presents a puzzle: if the FAA's regulatory activities are too ineffective to explain the safety precautions taken by airlines and aircraft manufacturers, why is the safety record of air travel so impressive? The answer lies elsewhere—in the workings of the market.

Market Provision of Safety

A number of market mechanisms play important roles in producing air safety. Liability and aircraft hull insurance brokers impose higher premium costs on firms with worse safety records. The role of insurance in inducing precautions has been thoroughly documented. In addition, the monitoring of safety investments by flight crews substitutes for consumer monitoring to some extent.

Much less appreciated is the role that the reputation of an aircraft or an airline plays in producing safety. If consumers cannot evaluate a product be-

(Cont. on p. 14)

Air Travel (Cont. from p. 13)

fore purchasing it, they may use the reputation of the firm that produces it as a guide to its quality. It is often asserted that the producer's reputation is a significant factor in the choice of expensive, complex products such as automobiles and large household appliances. But how does reputation affect air safety? Can consumers really be said to be concerned about an aircraft's or an airline's reputation? The answer is yes, and in a very fundamental way.

Consumers may know very little about a firm's maintenance procedures, onboard equipment, and other air safety measures, but they react very strongly to events such as crashes, particularly if there has been a series of incidents involving the same airline or aircraft. Not only do consumers avoid a suspect airline or aircraft, but the airlines act as consumers' agents in deciding which aircraft to buy and lease.[7] They bring their superior knowledge to bear on manufacturers by requiring that certain safety investments be made. If a manufacturer's aircraft appears to be unsafe, the airline that acquired it will suffer from reduced traffic and revenue and will become less likely to do business with that manufacturer. For that reason, each manufacturer will attempt to prevent major accidents that consumers might perceive to be its fault.

Thus, the potential consequences of an underinvestment in safety provide an incentive for aircraft manufacturers and airlines to make large investments in safety. Reputation furnishes a direct link between safety and revenues, even though most consumers are not aware of that relationship. Contrary to the market failure view, the market makes safety very much a bottom line issue for those firms.

To corroborate the above theory on the effect of an aircraft manufacturer's reputation, I drew upon the following implication of the theory. If a good reputation is a valuable thing for a firm to have and maintain, then the status of a publicly traded corporation's reputation should be reflected in the corporation's share price. More important, a sudden loss of reputation induced by an external event should cause a firm's share price to fall. A crash attributed to a flaw in the design of an aircraft is such an external event. Accordingly, I used techniques derived from modern finance theory to determine whether the share price of an aircraft manufacturer falls immediately after an announcement that one of its aircraft has crashed.

Taking as a sample all 72 crashes in the United States from 1966 to 1979 that involved fatalities on aircraft produced by the three major manufacturers (Boeing, McDonnell Douglas, and Lockheed), I tested for a stock-market response to air travelers' safety worries. The data indicate that when a crash was perceived to be unrelated to the design of an aircraft, there was no change in the manufacturer's share price. But when press reports indicated that the design of a plane may have been a cause, the manufacturer's share price decreased and did not recover. In such cases, the share prices dropped by an average of 3.8 percent, which amounts to an average loss of $21 million in shareholder equity. That difference in the share price response is striking evidence that the loss of reputation that follows a fatal crash for which the manufacturer appears culpable imposes large costs on the firm. Clearly, the owners and potential owners of an aircraft manufacturer's stock do not subscribe to the market failure view, which holds that consumers are unable to enforce their demand for safety.

> "The potential consequences of underinvestment provide an incentive for aircraft manufacturers and airlines to make large investments in safety."

McDonnell Douglas and the DC-10

The effect of a damaged reputation is especially dramatic when the publicized reason for a crash is the type of plane involved. In the case of the 1979 Chicago DC-10 crash, an engine separated from a wing of the aircraft immediately after takeoff. Journalists and aviation experts alike promptly identified flaws in the design of the aircraft as the probable cause. The FAA even grounded the plane, 12 days later, for over a month. Figure 1 indicates how the major reports on the crash affected the price of McDonnell Douglas stock. The starting price was defined as 100 so that the percentages of the subsequent deviations from that price would be easy to see. The thick horizontal line at the top of the vertical axis is the "prediction line"; if the Chicago crash had not occurred, it is likely that the price of McDonnell Douglas stock would have hovered around that line during the 60-day period in question. But the stock price did not do that. It experienced a sharp, sudden fall of 10 percent when news of the crash reached the stock market, followed by other large movements in the next few days in the wake of announcements that metallurgical cracks had been found in other DC-10s during special inspections. Indeed, at one point the stock was 32 percent below the prediction line. That decline is too large to be attributed to the anticipation of legal judgments, which are insured. Rather, it indicates that the effect of a damaged reputation on capital value was very significant.

Subsequent determinations that the major cause of the crash was airline maintenance practices led to a reversal of the decline. But McDonnell Douglas took the situation seriously enough to launch an advertising campaign that promoted the DC-10 (and later its new DC-9 Super 80). It is not clear how successful the campaign was. The International Airline Passengers Association's survey found that the DC-10 was the least-favored U.S. wide-body aircraft for flights of any length and the aircraft most avoided for flights of over two hours.

Conclusion

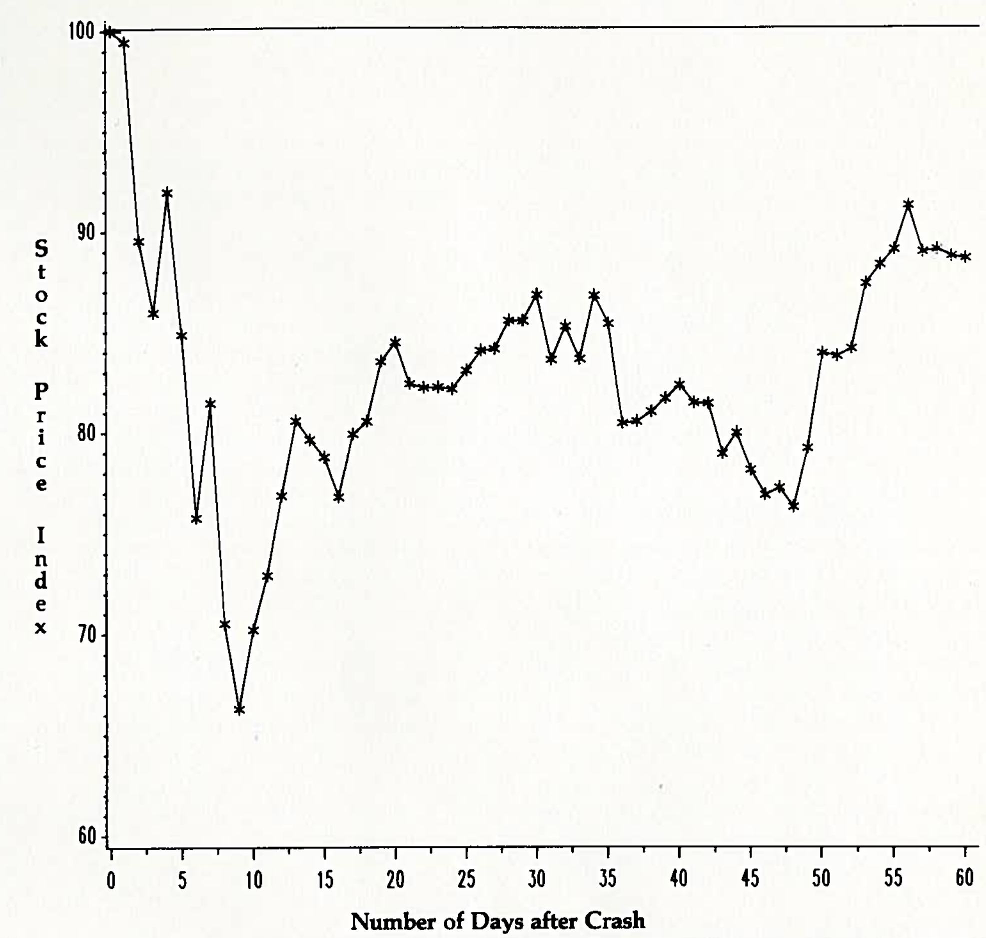
The findings described in this article cast doubt on the market failure view as a valid explanation of the high incidence of safety in air travel. The core of that view is that the regulatory standards that the state imposes on airlines and aircraft manufacturers ensure their adherence to safe design and operating procedures. But this article demonstrates that state enforcement and certification are too meager to account for that result.

Proponents of the market failure view must be baffled by the widespread overcompliance with safety regulations, given their assertion that the practice results in avoidable extra costs for air carriers and aircraft manufacturers. The only satisfactory explanation for overcompliance is that various market mechanisms are substituted for specific consumer search in the face of consumers' substantial ignorance of safety procedures. The relevant study focused on only one such mechanism, product reputation. It found that the market has imposed substantial costs on aircraft manufacturers when their aircraft crashed and it appeared that the design was to blame. The average cost of those crashes was $21 million in lost shareholder equity under the conditions described above, but the costs can be several times larger, as the DC-10 case illustrates. The prospect of incurring such costs after an accident induces manufacturers to make safety expenditures in advance. Both the theory and the evidence on market response indicate that consumers' ignorance of aviation technology does not necessitate that market failure will occur.

This article is not intended to make a case for abolishing the Federal Aviation Administration. Rather, it points out that the effects of the agency's rulemaking, enforcement, and certification should not be overstated, as they often are by proponents of the market failure view. Likewise, although the research undertaken by the FAA and other regulatory bodies has not been investigated in this article, it could result in a long-term improvement in air safety.

The implications for policy are twofold. First, the FAA should give more serious consideration to the role of market mechanisms and revise its rulemaking process accordingly. The agency might enhance those mechanisms by helping to increase the free flow of information to consumers. Second, the agency should concentrate its enforcement efforts in areas where consumer information is least available (taking into account relevant variables such as market size) and the market is least likely to function smoothly. ■

Figure 1
McDonnell Douglas Stock Price
Cumulative Abnormal Performance
From Date of Chicago Crash until 60 Days Later



SOURCE: Author's calculations based on data from the Center for Research in Securities Prices, University of Chicago.
NOTE: Stock price indexed to 100 on day of crash.

Footnotes

[1]International Airline Passengers Association, *Survey of Members*, 1985.

[2]Aviation Consumer Action Project, *An Analysis of the Federal Aviation Administration's Performance in Issuing Regulations Affecting Air Carrier Safety* (Washington: January 5, 1981).

[3]See, for example, Douglas B. Feaver, "Air Safety and Deregulation's Price," *Washington Post*, March 16, 1987.

[4]Rep. John Burton in hearings before the House Committee on Public Works and Transportation, *To Enhance the Safety Mission of the FAA* (Washington: 1980), p. 367.

[5]The four airlines are American ($500,000), Braniff ($400,000), Continental ($100,000), and Pacific Southwest ($15,000).

[6]National Research Council, *Improving Aircraft Safety* (Washington: 1980), p. 210.

[7]For evidence of consumers' avoidance of a suspect aircraft, see the *Wall Street Journal*, June 5, 1979, and June 8, 1979 (after the Chicago DC-10 crash); see also the International Airline Passengers Association survey.

"To be governed..."

A little left over for luxuries

The California cities of Santa Monica and Berkeley adopted two of the strictest rent control laws in the country on the grounds that they protect the economically vulnerable. . . .

Yet a study by Richard Devine . . . found that residents of both cities spend unusually large sums on luxuries. Devine found that per person, Berkeley residents spent 310 percent more on gourmet foods than did other Californians. Santa Monicans spent 95 percent more on restaurant dining.

On sporting goods, books, jewelry, cameras and so on, per person spending was 191 percent higher in Santa Monica and 169 percent higher in Berkeley than in the rest of the state.

—*Insight*, Apr. 13, 1987

Sabotaging Gramm-Rudman

During a visit to the Johnson Space Center Monday, U.S. Sen. Phil Gramm, R-Texas, promised space agency workers he will fight NASA spending cuts included in the House version of the 1988 federal budget. . . .

"The vote in the House, which in essence strips funds from NASA and science, may have been a response to all the screaming special interests, but it's not a response to the will of the American people," Gramm told about 200 workers.

—*Houston Chronicle*, May 5, 1987

But there are some splendid euphemisms

"There are no protectionists in the United States Congress," said [Rep. Richard] Gephardt, who has used the trade issue to raise the visibility of his presidential campaign.

—*Washington Post*, May 1, 1987

Besides, subsidizing the Soviets is good for our arms industry

The Soviet Union, enticed by the promise of a U.S. government subsidy, has agreed to buy 4 million metric tons of bread-quality wheat this year, Agriculture Secretary Richard E. Lyng announced yesterday. . . .

Lyng said he found it troublesome that the United States was forced to resort to subsidization of farm exports. But, he added, "the important thing here to me is that we are being competitive."

—*Washington Post*, May 1, 1987

Achieving eternal life

The state Legislature just couldn't stand the idea of Thomas Appleby losing his $115,000-a-year role with the United Nations Development Corp. . . .

He once quit it for a period, telling interviewers that, though the post gave him plenty of time for playing tennis and reading "junky" books, he was "bored."

But he was back on board by the time . . . [the agency's] original task seemed to be completed.

Some UN types were muttering that it was time for Appleby and most of his staff of 14 to fold their tents. Clearly something had to be done.

A lobbyist for the agency last year approached a Newburgh senator, who sponsored a bill that enabled state lawmakers to gallop to the rescue with a whole new mission and purpose in life.

—*New York Post*, Apr. 27, 1987

Well, that's progress

South Africa said today it is holding about 1,500 persons in detention without trial, fewer than at any time since emergency rule was imposed last year.

—*Washington Post*, June 3, 1987

Mondale-Martinez '88

Gov. Bob Martinez is beginning to attract favorable attention in national Republican circles, thanks to—of all things—his role in pushing through the biggest tax increase in Florida's history. . . .

"From the Washington perspective he seems to have been very aggressive in taking a leadership position," says Terry Wade, communications director of the Republican National Committee.

—*Wall Street Journal*, May 8, 1987

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