Letters

We welcome letters from readers, particularly commentaries that reflect upon or take issue with material we have published. The writer's name, affiliation, address, and telephone number should be included. Because of space limitations, letters are subject to abridgment.

The Perils of Portfolios

TO THE EDITOR:

"Portfolio Insurance and Stock Market Risk" (*Regulation*, 1987 Number 2) was helpful—almost clairvoyant—in improving understanding of the events of mid-October 1987.

The article draws an important distinction between index arbitrage and portfolio insurance as types of program trading. Analyses of market events make it clear that more, not less, program trading in the form of index arbitrage would have helped markets through the week of October 19, since stock index arbitrage adds absorption and liquidity and helps align prices in the cash and futures markets.

Portfolio insurance appears to have contributed to selling pressures in the futures markets. But as your article clarifies, no single strategy can possibly explain the widespread decline in stock prices in this country or in other countries where portfolio insurance with futures does not exist.

Independent scholars have examined the details of transactions in the S&P 500 index futures at the Chicago Mercantile Exchange and have concluded that continuous and smooth exit prices are not possible when a mass move to an exit occurs. This limits the potential value of portfolio insurance, at least when it is executed by selling futures. Accordingly, it is expected that reliance on this strategy will be greatly reduced.

Importantly, the article stresses that many anxieties about futures markets exist because of misunderstandings. It properly concludes that futures "did not cause the bull market, nor will they end it . . . index futures provide a fast and efficient means of adjusting equity exposure, and improving the alignment of prices in the futures market and the stock market" and do indeed "facilitate risk management and benefit institutional investors and the millions of individuals they represent."

I further commend your review of the joint efforts of the Chicago Mercantile Exchange and the New York Stock Exchange to change settlement procedures for ameliorating the volatility associated with "triple-witching hour." The futures and equity markets have worked together in the past, and I am optimistic we will do so again as we strive to foster market systems that enhance economic development and manage attendant risks. Together we can maintain the greatest markets in the world.

William J. Brodsky
President and CEO
Chicago Mercantile Exchange
Chicago, IL

TO THE EDITOR:

"Portfolio Insurance and Stock Market Risk" makes a valuable contribution to the ongoing discussion of the impact of portfolio insurance on the stock market. Ironically, the very disaster scenario that the article so ably debunked now, according to the popular press, has occurred.

The word on Main Street is that Wall Street's computers had a lot to do with the stock market crash on October 19. Prominent spokesmen and numerous journalists had warned the public before the crash that sophisticated trading strategies like program trading and portfolio insurance would lead to a stock market "meltdown." Since the disaster happened shortly after the warnings, many observers were led to conclude that portfolio insurance and program trading were indeed "culprits."

But is it reasonable to believe that a strategy like portfolio insurance could have such a powerful impact on the market? Prior to October 19, portfolio insurance strategies were being used to manage less than $90 billion of the total $3 trillion U.S. equity market. Can the actions of those who own less than 3 percent of the stock market be the cause of a 23 percent decline in stock prices?

Many critics of portfolio insurance base their opposition on the meltdown theory. This theory says that portfolio insurers' sales of stock following a market decline—and others' *anticipation* of these sales—lend momentum to a market decline. The critics claim that the actions of portfolio insurers on October 19 and the fear of insurance sales were major contributors to the speed and magnitude of the crash.

Let's suppose this theory is correct, and that stock prices are artificially low because of the "threat" of massive portfolio insurance sales. According to the logic of this theory, stocks ought to recover most, if not all, of their lost value if portfolio insurance were banned. The threat of portfolio insurance sales would no longer exist, so investors would be encouraged to own more stock, and would bid up prices in their attempt to increase their stock holdings.

Unfortunately, this logic is seriously flawed, because it leads to some very unreasonable conclusions. If banning portfolio insurance would boost stock prices, then why not ban *all* selling? Conceivably, if the regulators placed enough restrictions on selling activities, they could push stocks up to wonderfully high levels. The problem with this line of argument, of course, is that it overlooks a very basic fact: investors would not increase their exposure to stock if they could not reduce it whenever they needed to or wanted to.

Stock index futures, which function as a kind of "national stock certificate," provide a fast, efficient means for investors to reduce their exposure to stocks. The existence of

this instrument makes the stock market a *more* attractive place to invest capital—not less. Unfortunately, since October 19, regulators have shown an inclination to encumber the operation of the index futures market, just when it is needed most.

We must not lose sight of the fact that selling (which may occur because of panics, stop-loss orders, or portfolio insurance, and may be accomplished by selling stocks, selling futures, or by program trades) is something we must live with and accept. To say that disciplined selling is bad, destabilizing, or even socially undesirable, is to misunderstand the fundamental operations of free markets.

If we learned anything from October 19, it is that our market structures are inadequate to handle the potential volume and size of today's global markets. Thank you again for your contribution to the public's understanding of this issue.

John W. O'Brien
Chairman and CEO
Leland O'Brien Rubinstein Associates, Inc.
Los Angeles, CA

Pension Pensées

TO THE EDITOR:

I agree with Richard Ippolito's message in "Pension Security: Has ERISA Had Any Effect?" (*Regulation*, 1987 Number 2) that the way the Pension Benefit Guaranty Corporation is financed does not make sense. Since the time the PBGC was created in 1974, I have argued that the financing arrangement is inefficient and inequitable. From an insurance perspective, it makes no sense to charge some participants a substantial premium for a risk that, for them, is virtually zero; to charge those participants the same premium as others who have a very substantial risk; or to let any participants manipulate the system for their own financial advantage.

I disagree with Ippolito that a belief that there was fraud in connection with pension plans was a driving force behind the enactment of ERISA (although he is certainly right that ERISA would not correct this problem). In my view ERISA was enacted because some pension plans were failing to fulfill their promises in bankruptcy cases. The solution is to elevate pension liabilities on the list of creditors (to make them equivalent to unpaid wages) if bankruptcy occurs. Though I do not believe that workers were often fired to destroy their pension rights, I nevertheless favor vesting requirements (at least as a condition of getting income-tax approval) so people do not have to rely excessively on social security.

Ippolito is quite right that deferred pensions that are vested in nominal terms lose real value under ERISA. But is the solution compulsory indexing of deferred pensions? I would not (and I doubt he would either) favor that kind of extensive government control over the pension contract. We should require pension plans to be valued at a real interest rate (2 or 3 percent); then all "excess" interest should accrue to the benefit of pension-plan members, not pension-plan sponsors.

One aspect of ERISA that is particularly unwise, and that Ippolito does not address, is the information reporting requirement. Companies with pension plans must supply the Department of Labor with extensive amounts of information, little of which is ever utilized.

I commend *Regulation* for covering the important issue of pension regulation.

Robert J. Myers
Consulting Actuary
Silver Spring, MD

Who's Fueling Whom?

TO THE EDITOR:

I very much enjoyed reading C. Boyden Gray's article "Octane, Ozone, and Obstinacy" (1987 Number 2). He clearly describes the frantic tail-chasing that has characterized much of the federal and state effort to regulate automotive fuels and tailpipe emissions. Unfortunately, the facts do not support Mr. Gray in his advocacy of alcohol fuels over gasoline.

Mr. Gray does not seem to be urging widespread use of ethanol (grain alcohol) as a motor fuel. And of course, he should not. The small inroads ethanol has made in this market (in the form of a 10 percent alcohol, 90 percent unleaded gasoline blend) result from a very considerable subsidy. This "gasohol" fuel is totally exempt from federal tax and from many state taxes. We should not, of course, be misled by the ethanol experiment in Brazil. Millions of underemployed agricultural workers and vast areas of tropical land suitable for sugarcane production in Brazil have a far lower opportunity cost than our mechanized farms and the corn crops that would be the principal "feedstock" for ethanol fermentation in the United States.

This leaves methanol as the only serious candidate for an economically competitive alcohol fuel. But methanol does not meet Mr. Gray's criteria of "cleanliness, safety, and energy security."

First, methanol is *not* a superclean automotive fuel. Automobiles operating on methanol (or methanol blends) require essentially the same "three-way" catalytic converters as are installed on cars using unleaded gasoline. And the combustion of methanol produces another tailpipe emission: formaldehyde. Unfortunately for methanol advocates, formaldehyde is a very reactive ozone-former, much more so than the emissions from a converter-equipped gasoline engine.

Second, methanol is a poison. A very small amount (less than one-eighth of an ounce) can cause blindness. Less than a cup is fatal. Some say it tastes like beverage grain alcohol, giving no warning of its toxicity. By comparison, gasoline and its vapors are unpleasant but not toxic in quantities to which workers and vehicle drivers are typically exposed.

Third, the only economically feasible method of obtaining methanol is by the "steam reforming" of natural gas (methane from coal gasification is far in the future). Although there is at present a small surplus of natural gas in the United States, as well as some unused methanol manufacturing capacity, any substantial use of methanol as a fuel would require importing either vast quantities of natural gas (presumably in liquefied form) or equivalent volumes of methanol. These "alternative" fuels would be produced in the same regions (primarily OPEC countries) from which we will have to import increasing volumes of crude oil as our own production declines. So much for energy security!

(Continues on page 68)

(Continued from page 3)

Finally let's make a fairer comparison of vehicle alternatives. There is very little difference between the emissions from a new vehicle running on methanol and those from a new vehicle using unleaded gasoline *when the pollution controls on both vehicles are properly maintained.* This is the real problem. From old clunkers to relatively new vehicles, the U.S. automotive fleet emits vast volumes of pollutants that could be greatly reduced if, as a nation, we had the political will to enact and *enforce* the strictest practicable emission controls on *all* vehicles. We could even afford to buy up and junk old vehicles for far less cost than the hundreds of billions of dollars required to build a major methanol fuels industry.

In the end I must agree with the main thrust of Mr. Gray's message. Bureaucratic inertia is the problem, whether it is in objectively evaluating alternative fuels or in convincing the American people that strict automotive emission controls are essential to our future health and well-being.

Robert P. Howell
Consulting Engineer
San Rafael, CA

TO THE EDITOR:

What, precisely, is Boyden Gray's complaint in his article, "Octane, Ozone, and Obstinacy"? Apart from vague references to "bureaucratic inertia," the only real complaint is about rules restricting blending. Gray implies that the blends that are not now permitted would be superior to those that are, but no real evidence is presented one way or the other.

Gray also seems concerned about a supposed "chicken and the egg" problem—car companies won't manufacture alcohol-powered cars until the oil companies start selling alcohol fuels, and vice versa. Again, it is not clear what solutions are being proposed. Does the author support the most commonly-proposed remedy, government purchases of methanol-powered vehicles? He doesn't say.

The market has a long history of providing complementary goods, even when they require capital investments. Look at the auto industry itself: There was hardly a gas station on every corner when Henry Ford started making model T's! Maybe the car/oil people ought to sit down with the electronics/recording industry and get some "how to" tips. The government didn't have to buy $5,000 Sony Betamaxes to get the recording companies to issue Beta tapes.

The most important points about alternative fuels are ignored in this article. First, none of these fuels is unambiguously or definitively any cleaner than plain old gasoline. Emissions of nitrogen oxides and formaldehyde are increased by ethanol and methanol (respectively), and both present more difficult problems than the carbon monoxide emissions these fuels reduce. Second, alternative fuels are simply not economically viable absent subsidies—especially ethanol, which the Department of Agriculture recently estimated would not be economical with oil prices less than $40 per barrel.

These issues overwhelm any concerns about "bureaucratic inertia" and limits on blending. Instead of bashing the bureaucrats at the EPA (deserving though they may be), we ought to be working to kill the $1 billion corporate welfare program for ethanol.

Jeffrey A. Eisenach
Washington, DC

GRAY responds:

Howell and Eisenach evidently did not get the point—which is that the perfect should not be the regulatory enemy of the good. Both writers correctly say that alcohols are not perfectly clean, or completely free. The question is how they compare with gasoline environmentally.

Methanol combustion does emit formaldehyde, but the levels are low enough to avoid raising any health concerns. With respect to reactivity in ozone formation, the question is *total* reactive hydrocarbon emissions, not just formaldehyde. Methanol's total emission level is so low that running a car on pure methanol will reduce that car's contribution to smog by more than 90 percent, and do so with a much cheaper and longer-lasting catalytic converter that does not require noble metals such as platinum and rhodium (for which we are almost totally dependent on South Africa and the Soviet Union).

The same is true of NO_x and CO emissions—methanol combustion does not eliminate these pollutants, but methanol would permit use of a base-metal catalyst that is cheaper and longer lasting. Finally, it is also true that methanol is a poison that should not be drunk. But so is gasoline, which will in fact kill you quicker and with smaller quantities than methanol will.

Note that the lower emissions levels associated with alcohols do not depend on careful maintenance of a car's emissions system, so that inspection and maintenance burdens can be lowered. It is astonishing that anyone would recommend tormenting the public with greater inspection and maintenance burdens when they could be reduced so easily.

Cost is obviously a factor, but I would challenge either writer to go to the Gulf Coast and assert publicly that we do not need to find new markets and uses for natural gas because it is too scarce and its price is too high. The myth of the scarcity of natural gas is one of the unfortunate legacies of the Carter Administration, which enacted the Fuel Use Act to prohibit use of natural gas in a number of applications in order to conserve it. President Reagan last year signed the repeal of this act; but the public perception of natural gas's limited availability, and the reflection of that perception in the regulation of ozone, CO, NO_x, and SO_2, is one of the barriers to a level-playing field for fuels that we are trying—with some success—to eliminate.

As for ethanol, it makes sense at the moment only as a blend to reduce carbon monoxide pollution and to boost octane in place of ozone-creating aromatics. In this limited role it is quite cost-competitive. The challenge is to get regulators and the public to compare it not with the cost of gasoline at wholesale, but with the cost of Draconian driving restrictions that will be required in high-pollution cities if oxygenated blends are not used.

C. Boyden Gray
Counselor to the Vice President
Washington, DC