Irrational exuberance?

While biotech researchers are stepping up to increase the efficiency and reduce the environmental impact of ethanol production, investors are also doing their bit to get biofuel off the launch pad. No less than Bill Gates, entrepreneur Richard Branson, venture capital guru Vinod Khosla and investment bank Goldman Sachs are contributing a huge amount of their considerable economic, political and media clout to biofuels as a whole, and ethanol in particular.

In just the past several months, Gates has invested—through his private investment firm Cascade Investment—$84 million in Fresno, California-based Pacific Ethanol; Khosla Ventures will likely invest at least that much this year in ethanol startups; Branson's Virgin Group plans to invest $300–400 million in ethanol distilleries in the near future; and Goldman will invest at least double that amount in alternative energy sources, such as ethanol. Even mainstream institutional investors like the insurance and financial services giant MetLife is of the mind that if you build ethanol plants, customers will come. MetLife's $8-billion Agricultural Mortgage Portfolio Unit has $350 million invested in ethanol-producing concerns.

Mainstream headlines, deal flow and gravity-defying share prices of newly public biofuels producers would seem to suggest that the momentum driving this passionate interest in biofuels is broad based and serious. The wisdom of crowds holds that the price of oil, India's and China's demand for energy, and national interest in energy independence from OPEC (the Organization of the Petroleum Exporting Countries) will not soon fall.

Some worry that the hype factor surrounding biofuels, particularly ethanol, has reached the silly stage. Perhaps, but there are no signs of slippage on the investor front. To the contrary, investors seem to have an insatiable appetite for biofuels producers right now. A quick gander at the stock market performance of companies like Pacific Ethanol; Sao Paulo, Brazil-based COSAN SA; and Brookings, South Dakota-based VeraSun Energy, which have all floated within the past 12 months, reveals nothing if not irrational (and sustained) exuberance. All three firms have seen their share price triple over the offering price.

What could possibly stop this juggernaut? Plenty. Indeed, biofuels boosters need to be careful about what they wish for. With media and investor attention comes scrutiny and grist for critics who are not at all pleased to see biofuels getting all of this attention. Scientists and biotech executives might not pay much attention to news articles in publications like *Bloomberg Markets*. But they would do well to read the sobering article in this month's issue entitled "Ethanol Frenzy" by Joe Carroll.

Carroll has done something that most journalists covering biofuels have not: examined the undercarriage and fuel source of the bioenergy juggernaut. He points out, among other things, that few things in this world are more fragile than government funding and industry enthusiasm for big, new ideas that affect their own share price and commodities prices.

Government funding for biofuels, at least in the corn-based ethanol-happy United States, is relatively puny and is hugely politically calculated. Which is to say that it can all go away in the blink of an eye. Last year's energy bill, which President Bush signed into law, forces oil refiners to nearly double their biofuel use by 2012, for example. Forget the fact that this is little more than a stunt designed to win over voters in the midterm elections in Midwestern corn-growing states like Minnesota, Iowa, Kansas and Colorado.

Although it guarantees that farmers will have a captive market for their corn for the next six years, there is no guarantee that this mandate will be expanded or continued after that when these states are not quite as politically important to Washington. Farmers are never going to complain about government market supports, but they are understandably ambivalent about just how deep Washington's commitment to biofuels truly runs. They are also aware of the money lost in the 1980s by those who bet on biofuels because the US government, along with oil refiners and coal producers, was bullish on energy alternatives.

The US Department of Energy calculates that current US consumption of ethanol is about 3% of total fuel. The government has called for that share to increase annually by at least 11% a year through 2012, which would boost total ethanol consumption to 5% of total fuel demand by 2012. The Bush administration has stated that it expects oil refiners and retail gas stations to make it all happen. After that, the government has said that ethanol demand need only match new demand for gasoline.

In other words, starting in 2013, ethanol will have to compete in the free market with only the carrot (the stick will have been sheathed). At present, ethanol is not price competitive by any stretch of the imagination—even with the absurd and decidedly anti-free-market 54-cent per gallon tariff Washington imposes upon Brazilian ethanol.

Dan Reicher, president of New Energy Capital, a Waltham, Massachusetts private equity firm, told *Bloomberg Markets* that the government and market can giveth and taketh away. "The federal mandate put ethanol on a more solid foundation. There's still the risk that corn prices can go up and oil down, either of which could hurt this industry." And there is also the problem that automobile manufacturers and consumers might lose interest in biofuels, for whatever reason—consider that Australians fret that ethanol is bad for their cars and New Zealand consumers can't easily find flex-fuel cars or ethanol at the pump—in which case so might investors.

Forget the fact that oil, natural gas and coal are subsidized an order of magnitude beyond biofuels. The important thing for biofuels boosters to remember is that they need to master the politics and economics of energy at least as much as the scientific and PR variables.