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Pharmaceuticals and Corporate Responsibility

Doing Well and Doing Good

“We try never to forget that medicine is for the people. It is not for profits. The profits follow, and if we have remembered that they never fail to appear. The better we have remembered, the larger they have been.” These are the heartwarming words of George W. Merck, founder and past president of the eponymous pharmaceutical company. Heartwarming—but are they true? They imply that pharmaceutical companies do well (financially) by doing good (medically). There does seem to be truth in this.

Certainly, they have done well: pharmaceutical companies are always among the most profitable, with rates of return on equity and on investments that are among the highest of all industries. And they have also done good: they have contributed to the quality of life and to the increasing of life expectancy over the last half-century.

The pharmaceutical industry has been one of the most profitable in the world for most of the last quarter of a century. Table 5.1 shows three measures of return for the pharmaceutical industry and for five other industries, money center banks, personal computer makers, aerospace and defense, automakers, and semiconductor makers. The measures of return are returns on sales, equity, and assets. The first of these is profit as a percentage of sales, and the second and third are respectively profits as a percent of shareholders’ equity, and total corporate assets. Return on assets is usually less than return on equity, as the value of assets usually exceeds the value of equity.¹

From Table 5.1, we see that the pharmaceutical industry has the highest return on sales, and the second highest returns on equity and assets. Makers of personal computers have a much higher return on equity and a slightly higher return on assets: all other industries shown score lower on all

TABLE 5.1 The Three Measures of Return for the Pharmaceutical Industry and for Five Other Industries

	Drugmakers (Major)	Money Center Banks	Personal Computers	Aerospace Defense	Automakers	Semi- conductor Makers
Return on sales	16.83%	16.48%	6.41%	4.13%	2.39%	13.45%
Return on equity	22.43%	13.81%	35.18%	12.39%	9.73%	13.99%
Return on assets	11.07%	1.09%	12.69%	4.16%	1.49%	9.84%

measures. Pharmaceuticals, then, are certainly profitable and have been for at least two decades. Pharmaceuticals have also been a central contributor to the improvement in health and life expectancy over the last half-century. As we tend to take for granted much of what they have brought us, it is worth recalling their contributions.

Many diseases that were common fifty or more years ago are now rare because of vaccines. Smallpox, once a worldwide killer, has been eradicated. Common childhood diseases such as mumps and measles have been all but eliminated. Tuberculosis is under control in the developed world. There are vaccines for most dangerous diseases.

Many conditions that were dangerous and untreatable thirty years ago are now routinely treated by drugs. Acid suppressants treat a range of gastric problems that were once serious and possibly deadly, but are now harmless. A wide range of cardiovascular problems can be remedied with drugs to reduce cholesterol, thin the blood, or reduce blood pressure. Drugs can cure most cases of depression. AIDS, a death sentence when it appeared and also a complex and novel disease, can now be contained and need no longer be a death sentence. Even cancer, one of the most frightening of all diseases, is beginning to yield to pharmaceutical attacks. We have progressed to the point where most people today expect that if they are sick, there is a pill that will make them better and are surprised and disappointed to hear otherwise. This radical change from fifty or fewer years ago is a measure of what the pharmaceutical industry has wrought for society.

My colleague Frank Lichtenberg has studied the effect of new drugs on longevity in the United States² and concluded that they have made a major contribution to increased life expectancy. Between 1960 and 1997, life expectancy in the United States increased from 69.7 to 76.5 years, an increase of 9.7 percent over about forty years. The other major contributor to longer lives, according to Frank's study, was increased expenditure on health care. But of the two, expenditure on the development of new drugs was by far the more cost-effective. To gain one life-year³ by increasing health care expenditure cost \$11,053, whereas to do the same by developing new drugs cost \$1,345.

The Fall from Grace

There is no question then that the pharmaceutical industry has done well financially and has done good—eliminating common diseases through vaccines, curing life-threatening diseases, improving the quality of life, and also increasing the length of the average person's life. It seems then that the pharmaceutical industry ought to be the poster child for capitalism—making money while improving the human condition, in the best traditions of Adam Smith. Yet ironically it is not, and indeed is far from that position. It is under attack from many angles, and a recent Harris Interactive poll⁴ showed that the U.S. public's perception of the pharmaceutical industry is low and has declined dramatically. In 2005, less than 15 percent of the population agreed that the pharmaceutical industry does a good job of serving its customers, whereas in 1998 that percentage had been about 50. By comparison, about 70 percent feel that the computer industry does a good job of serving its customers. Remarkably, slightly over 60 percent even agreed that the airline industry does a good job. Of the companies mentioned in the survey, only health insurance, tobacco, and oil were rated lower by the respondents. A recent survey of the industry by *The Economist* stated that pharmaceutical firms

stand accused of focusing on “me-too” drugs which confer little clinical benefit over existing medicines; rushing these to market through cunning clinical trials designed to make them look better than they are; and suppressing data to

the contrary. The industry is also lambasted for expensive, aggressive and misleading direct-to-consumer advertising, which sometimes creates conditions to fit the drugs rather than the other way around. Hobnobbing with doctors means giving them “food, flattery and friendship” at best, and outright bribery at worst.

This litany of charges was reinforced by New York Attorney General Elliot Spitzer’s suit against GlaxoSmithKline for allegedly suppressing data linking the use of antidepressants to increased incidence of suicide among teenagers and by the withdrawal of Merck’s Cox-2 inhibitor Vioxx because of the risk of heart problems. Merck—whose founder’s sentiments on doing good and doing well opened this chapter—now faces that peculiarly American death, annihilation through lawsuits.

There is a real irony in the position of Merck. Not only did its founder express very clearly estimable sentiments that have to some degree guided the company since then, but also Merck played a leading role in the development and introduction of one of the most valuable categories of new drugs of the last few decades, the cholesterol-lowering drugs. In addition, in the 1980s Merck went out of its way to eliminate, at a cost of over \$200 million, a disfiguring, disabling, and painful disease common in many tropical regions, river blindness. Caused by a parasitic worm that can enter the body when a fly bites, river blindness is the result of these worms growing and breeding within the body. They can grow to over two feet in length, and when they reproduce they release millions of offspring called microfilariae that swarm through the body, causing itching so bad that victims have been known to commit suicide. Eventually, these microfilariae reach the eye and can cause blindness. In parts of West Africa, the majority of those over forty-five were blind from river blindness.

Merck’s research scientists realized in the late 1970s that a drug they had developed to kill parasitic worms in animals might kill the worms that cause river blindness. The company’s top management decided to carry out clinical trials in Africa, which meant establishing the local infrastructure required for these tests, and discovered that a derivative of their drug, which they called Mectizan, was indeed completely effective in curing this painful and damaging illness. They realized early on that there would be no market for the drug, as the affected population had no money to pay,

and sought to give the drug away free to local governments or the World Health Organization, so that they could distribute it to people who needed it. For reasons too complex to summarize here (but that are not to their credit) neither organization rose to the occasion. Rather than leave the disease untreated, Merck not only gave the drug away but also put in place a distribution system, no small task in tropical regions with no health system and no vehicular access.⁵ Of the rationale for this donation, the then chief executive officer Roy Vagelos said:

Some argue that corporations should not be in the business of making donations, contending that their first obligation is to reward stockholders with higher dividends and not squander company resources on gifts. I disagree. Our policy on Mectizan and other gifts made Merck a place where people were proud and excited to work because they wanted to make lives better around the world. It helped us recruit the best people and build company morale. It was consistent with Merck's fundamental corporate philosophy of doing well by doing good. It served the global society Merck serves. It also served Merck's stockholders because corporate social generosity is often followed by higher profits as the corporation becomes a better, more attractive workplace for the best talent.⁶

An interesting statement, touching on many themes we have already addressed, and, as I said before, a painfully ironic story given Merck's present predicament.

Why is the pharmaceutical industry held in such low esteem, with prominent firms in danger of legal annihilation, when in fact it has contributed so much and will probably do so again in the future?

Access to Medicines

The pharmaceutical industry has made a number of serious mistakes, all readily identifiable from the perspective we have developed on corporate responsibility. One that is easy to identify is its position on the pricing of AIDS drugs in South Africa. It is difficult to imagine a more morally indefensible position than suing the government of the charismatic and widely loved Nelson Mandela, shortly after his masterminding the transi-

tion of South Africa from racial segregation to a multiracial democracy, for seeking to prevent the poorest members of its society from dying. Yet that is the position assumed by the pharmaceutical industry. Tone-deaf is an understatement: such a move was always bound to come back and haunt them.

The background is that in the late 1980s and early 1990s anti-AIDS drugs became available, not cures but drugs that, nevertheless, reduced the presence of AIDS viruses in the body and turned AIDS from a death sentence to a controllable chronic illness. They were sold at a very high price in the United States—in the region of \$10,000 for a year's treatment. The incidence of AIDS in South Africa was high—far higher than in the United States. Yet clearly the vast majority of AIDS sufferers there could not afford even a small fraction of this price. Drug companies initially refused South African government requests to reduce prices. Rather than leave its citizens to die of AIDS, in 1997—four years after the failure of negotiations on price—the South African government granted its Ministry of Health the right to allow the import of AIDS drugs made under license in other countries. This meant, for example, that an Indian company, Cipla, was able to supply AIDS drugs at a small fraction of the U.S. list price. (U.S. patents were not valid in India.) Shortly after the government gave the Health Ministry this power (in February 1998 to be precise), thirty-nine major drug companies filed a lawsuit against the government of South Africa, claiming that this new law violated international trade agreements, such as the Trade Related Intellectual Property (TRIPs) provisions of the World Trade Organization.

The lawsuit was a serious mistake by the drug companies. Médecins sans Frontières, an international NGO dedicated to providing medical treatment to those in need, presented the companies in the trial with a petition of 250,000 signatures asking that they drop the case. Oxfam, a British charity and NGO dedicated to the relief of poverty, pressured GlaxoSmithKline into changing its hitherto strict policy on patent enforcement in poor countries. ACT UP!, an AIDS activist group, stormed the office of the chief executive of Pfizer, one of the more recalcitrant drug companies, and demanded that the company drop the price of an AIDS-related drug in South Africa. Media treatment of the lawsuit in the West was almost universally negative. The influential and conservative magazine *The Economist* commented bitinglly that

Powerful medicines can have powerful side-effects, sometime clouding the judgment or blunting reactions. As the public debate over how to get expensive rich-world medicines to poor countries shows, this is as true for those who make the drugs as for those who take them.⁷

The trial started in March 2001, and after six weeks the drug companies realized that they had a public relations disaster on their hands and withdrew their suit, paying the legal costs of the South African government. Nothing was gained, and a great deal lost in terms of public esteem and trust, by this episode. It should have been obvious to the drug companies from the start that the world would not tolerate millions of poor people dying from AIDS just because they could not afford the prices charged for medicines by Western companies and that they would have to find a way of accommodating to this reality.

Although the pricing of AIDS drugs in South Africa was perhaps the most egregious of their misjudgments, the drug companies made many others. Year in and year out they raised the prices of existing medicines faster than the rate of inflation—not the prices of new drugs, but of old medicines that had been on the market for years and which were in no way changed from year to year. The American Association of Retired People claims that from 2001 to 2004 the prices for the most commonly used brand name drugs increased 28 percent, and again none of these were new drugs: this was just the result of companies increasing profit margins where they thought the market would bear it.

Roy Vagelos, who was the CEO of Merck when it developed and marketed the first cholesterol-lowering drug, comments in his book *Medicine Science and Merck* on the pressures he experienced to raise prices for no reason other than that it was possible and on the struggle he had to resist these pressures. His successor, and his fellow CEOs at Merck's competitors, clearly did not struggle or at least gave up more easily. Financially desperate U.S. senior citizens started to buy medicines from Canada, where the prices were often less than half those in the United States, and in response drug companies sought and obtained a law blocking the import of medicines from Canada. And when Medicare was extended to cover some of the costs of prescription drugs, they lobbied to insert in the legislation a provision that the government not use its bargaining power to negotiate

prices lower than the list prices—something done by every other government in the world and by most hospitals and health plans. When Maine passed a law allowing the state to negotiate the prices of prescription drugs with manufacturers on behalf of its citizens, the pharmaceutical companies filed a lawsuit to prevent this, won at the first round, but lost at the Court of Appeals.

Behind the public fury that built up over drug pricing is the issue of access to medicines: high prices limit access, particularly for those in the United States without health insurance, a large and growing number, and for those in poor countries without universal health services provided by the government.

Transparency

This is not the end of the charges. There is ample evidence that the drug firms almost bribed doctors in attempts to persuade them to use their drugs, offering thinly veiled free vacations and remunerative consultancies to those who would play along. Perhaps worse was evidence that some companies had suppressed evidence about dangerous side effects of their drugs, putting their customers' lives at risk in the search for profits. In response, major scientific journals tried to force drug companies to allow researchers to disclose unfavorable as well as favorable results—not an easy task as the companies paid for clinical trials and owned the data.

Merck again acts as a case that illustrates well what is at issue here with its painkiller Vioxx, which was withdrawn voluntarily in September 2004. Vioxx was developed as an alternative to conventional painkillers such as Aspirin and Advil, which had been available without prescription for many years. Both Aspirin and Advil, and other members of the NSAID⁸ family, had the unfortunate side effect of irritating the lining of the stomach and causing bleeding in some patients when taken for long periods. This limited their use as treatments for chronic pains, such as those associated with arthritis. Merck and several other companies therefore developed a new family of painkillers called Cox-2 inhibitors, of which Vioxx was one, that were as effective as the traditional painkillers, but did not irritate the stomach lining. The U.S. Food and Drug Administration (FDA) approved of Vioxx in

1999. Merck then had the option of promoting it as an alternative to Aspirin and Advil just for those with reactions to these drugs, or promoting it as a replacement for them even for those for whom the traditional medicines worked fine. As the latter strategy led to a larger market, it was Merck's chosen route. Vioxx was therefore promoted by heavy direct-to-consumer (DTC) advertising and became one of Merck's most profitable products, yielding a surplus over manufacturing costs of about \$2 billion annually.

In 1999, Merck started a clinical trial called VIGOR, checking the effectiveness of Vioxx in patients with gastrointestinal problems, and in this trial they noted for the first time that patients taking Vioxx suffered roughly twice as many heart attacks and strokes as those taking the control, Naproxen, one of the traditional painkillers. Merck argued that this was due not to the tendency of Vioxx to cause cardiovascular problems but to the heart-protecting effects of Naproxen, although there was no evidence of such effects from Naproxen. They even went as far as issuing a press release titled "Merck confirms favorable cardiovascular profile for Vioxx," leading to strong criticism from the FDA, who described the press release as "simply incomprehensible" and part of "a promotional campaign for Vioxx that minimizes the potentially serious cardiovascular findings that were observed." They also remarked that "patients on Vioxx were observed to have a four- to five-fold increase" in heart attacks.⁹

Early in 2000, Merck began another clinical trial intended to test for the effectiveness of Vioxx as a possible cure for colon cancer. By 2003, the panel monitoring this trial noted that the incidence of heart attacks and strokes was 20 percent higher among patients on Vioxx than on the placebo and by 2004 this difference was 80 percent; in September of that year Merck withdrew Vioxx from the market.

By the time Merck withdrew Vioxx, they had known of evidence that it led to increased cardiovascular risks for at least three years and possibly more and had publicly denied that there was any risk associated with Vioxx. The responsible move would have been to disclose these risks to the medical profession and to the FDA as soon as they were known, so that doctors and patients could have made their own informed decisions whether to take the risks or not. Some with severe pain and sensitivity to NSAIDs would have continued and others would have stopped. Merck's profits would have dropped, but patients would have lived and Merck's legal liabilities

would have been far less: it and its shareholders would have been better off in the end.

In August 2005, a Texas jury awarded damages of \$253 million against Merck in a case that many legal experts thought unwinnable because of a lack of evidence that Merck's product Vioxx was directly responsible for the heart arrhythmia that killed the plaintiff's husband. Merck's withdrawal of Vioxx led to a drop in its stock-market value of almost \$30 billion. This was in response to the loss of profits from the withdrawal of this erstwhile very profitable drug and to the threat of thousands of lawsuits arising from the admission that Merck understated the risk of cardiovascular complications arising from its use. The loss in stock-market value, incidentally, was greatly in excess of the present value of the profits that would have come from the sale of Vioxx had this been continued, so that Merck would have been better off never to have put the drug on the market. Better still would have been to put the drug on the market with a clear assessment of the risks associated with it.

The Way Ahead

All the moves I have described—raising prices in the United States, charging high prices in poor countries, and holding back evidence of dangerous side effects—portray the industry as grasping, seeking to squeeze the last cent out of its sick customers, who not surprisingly resented this deeply and developed a strong antipathy that is the basis of the Harris Interactive poll results cited earlier.

Everything we have seen so far is consistent with the way we have thought about corporate responsibilities in earlier chapters. Central to the tensions between drug companies and society is a distributional conflict arising from the inability of the poor to pay the prices charged by profit-oriented pharmaceutical companies. This conflict is at its sharpest in developing countries, where people are living on a few dollars a day and clearly cannot pay prices that make drug distribution commercially viable. It also arises in the United States, as the number of people without health insurance rises: this figure is currently in the region of fifty million. The uninsured, usually also poor, again cannot pay the prices demanded by drug companies.

Drug companies are in a unique situation here: it is true of most industries that many people cannot afford their products, and neither they nor the rest of society are concerned about this. Most people cannot afford expensive cars or houses, a fact of little consequence. We don't worry that most people can't afford Ferraris or Aston Martins or Manhattan penthouses. But drug companies are different because drugs are different; they are not just ordinary commodities: they can make the difference between life and death, or between being sick and being well, and most of us do not accept that these differences should be determined by income. This puts drug companies in a unique and difficult position: we expect that everyone will have access to their products, even people who cannot afford them. As long as this expectation is unfulfilled, drug companies will be censured and the conflict will remain unresolved.

In many countries this conflict is resolved by governmental action: the government undertakes to buy medicines from drug companies and to distribute them to consumers through a national health service. Drug companies negotiate a profitable price with the government purchasing agency and do not have to worry that anyone will be unable to pay this price—distribution to consumers is the government's responsibility, not the companies'. If the government wants to subsidize the purchases of some groups, it can do so. Systems like this operate in most industrial countries other than the United States. There are obvious advantages, but there are disadvantages too: such systems in effect regulate the pharmaceutical industry, determining both what it can sell and the price at which it is sold. Whether a fully regulated industry would be as innovative as the current pharmaceutical industry is an open question. There is now active debate about whether such a system should be implemented in the United States.

Governmental action can resolve the dilemma faced by drug companies in industrial countries, and has done so in many countries even if not in the United States, but has not so far addressed the conflict between access and profits in the developing countries. Most poor countries do not have effective national health services and probably do not have the experience and bargaining power to make attractive deals with big drug companies. So the conflict between access and profits remains unresolved in both the United States and developing countries, a thought-provoking conjunction.

TABLE 5.2 2005 Poverty Guidelines for Forty-Eight Contiguous States and the District of Columbia

Persons in Family Unit	Poverty Guideline
1	\$9,570
2	\$12,830
3	\$16,090
4	\$19,350
5	\$22,610
6	\$25,870
7	\$29,130
8	\$32,390

For family units with more than eight persons, add \$3,260 for each additional person.

In the United States the drug companies are making some moves to resolve the problem, through programs in which they make medicines available free or at reduced costs to uninsured families with low incomes. Most major drug companies now run such programs. The details vary, but typically to be eligible a family needs to show that it has no health insurance and an income that, in the case of the program run by Pfizer, is no more than twice the federal poverty guideline. Here are the federal guidelines, taken from <http://aspe.hhs.gov/poverty/05fedreg.htm> (Table 5.2).

So a family of four would be eligible for free medicines from Pfizer provided that it is uninsured and earns less than \$38,700, and a couple with no children would have to earn less than \$25,660. GlaxoSmithKline (GSK) has similar programs: as they say on their Web site

Access to medicines is not just an issue for the developing world. Even in developed countries some patients cannot afford the medicines they need. This is particularly a problem in the U.S. where many people do not have health insurance. GSK has developed Patient Assistance Programs and discount cards in the U.S. to help patients without insurance.

GSK's Patient Assistance program makes medicines available free or nearly free to the eligible uninsured: its discount cards give a 40 percent discount. This sounds generous, but in evaluating this we must remember that expensive drugs can cost \$10,000 per year and more, so a 40 percent discount, while significant, would probably leave many families unable to pay.

Both GSK and Pfizer are part of a system called Together Rx, through which a group of twelve pharmaceutical companies¹⁰ provide certain medicines at reduced cost to eligible families. Eligibility criteria are as follows (for more details see <http://togetherrxaccess.com/en/eligibility.html>):

- Not eligible for Medicare
- No prescription drug coverage (public or private)
- Household income equal to or less than
 - \$30,000 for a single person
 - \$40,000 for a family of two
 - \$50,000 for a family of three
 - \$60,000 for a family of four
 - \$70,000 for a family of five
- Legal U.S. resident

I have not been able to find data on the size of the discounts to which eligible families are entitled, nor on how many people use this and other systems designed to help the poor and uninsured. GSK's Web site suggests that about seven hundred thousand people benefit from its Patient Assistance program and discount cards. As about fifty million are uninsured, this is less than two percent of those who need help—nice as far as it goes, but hardly a resolution of the problem.

Although these medicine access programs in the United States are limited, they are clearly a move to reduce the distributional conflicts inherent in the sale of medicines. They are moves in exactly the direction a corporate responsibility strategy would recommend. But in fact a key point is that it is not really clear if it is the responsibility of corporations to reduce these conflicts. As I noted earlier, in many countries the government takes care of this. America has drawn the line between public and private responsibilities differently from other industrial countries, and with the number of uninsured at fifty million and growing, one has to wonder if it has drawn it well.

This issue will clearly remain on the political agenda for some time, and if the line is eventually redrawn, it could change corporate responsibilities in this area. The assumption of greater responsibilities by the public sector could remove the conflict that drug companies now face in the United States. Drug companies should be supporting further intervention in the provision of medicines by the federal government in the United States rather than opposing, as has generally been the case.

This would not, however, reduce the conflicts that they face in the international arena, where it would still be the case that most people in poor countries cannot afford modern medicines and yet need them desperately. Indeed, it is not just a case of providing medicines to poor countries but also of developing medicines for these countries: as we saw in the case of Merck and river blindness, there are diseases that are crippling to inhabitants of tropical countries and which do not occur in advanced countries. Big drug companies have no incentive to develop medicines for these diseases, even if this is possible. The most dramatic case is certainly malaria. Afflicting tens of millions people in forty-four countries, my colleague Jeffrey Sachs has estimated that malaria costs the countries in which it is endemic a 1.3 percent reduction in the growth of their gross domestic product each year and plays a major role in holding back their economic development.¹¹ Yet, until recently, drug companies made no serious effort to develop vaccines or a cure, simply because there was no prospect of ever earning enough from sales to recoup their investments and earn a good return.

Again, it is not evident that it is the responsibility of drug companies to develop drugs for which there is, in the financial sense, no market—just as it was not clear that it is up to them to solve the problem of the uninsured in the United States. Drug companies are market-based entities. I noted in Chapter 1 that, while the invisible hand is effective in many ways, it can meet needs only if they can be expressed in money terms. In a market economy, others supply us with what we want because we can pay them to do so and this payment gives them an incentive. But if we are too poor to pay, this logic fails. Our needs cannot be expressed in the market and so the market cannot meet them. Paul Samuelson, a famous economist, once said that in a market economy we vote with our dollars. Those with no dollars are then disenfranchised.

If we hold corporations responsible for solving the problems of developing and providing medicines for poor countries, we expect their shareholders to pay for the solution. They certainly have no legal obligation to do this, nor do they seem to have a moral obligation, and least no more than any rich person, shareholder or nonshareholder, has a moral obligation to help here. Nevertheless, as we saw in the case of Merck and river blindness, some corporations do anyway go ahead and develop products for which they will not be remunerated. Merck's CEO, Roy Vagelos, argued that producing and distributing the river blindness drug was good for Merck's shareholders, as it enabled the company to recruit and retain superior scientists, and boosted morale in the company. While I am sure he was correct in that one case, it seems unlikely that there would be no cost to shareholders if a drug company continually adopted major research and development projects that lead to no revenues, and then paid for the distribution of the resulting drug. So ultimately there would be a cost to shareholders.

Foundations and international organizations have recently assumed financial responsibility for the development and distribution of medicines to combat HIV–AIDS and malaria, two of the most damaging and deadly diseases of the third world. The Bill and Melinda Gates Foundation has made large sums available for research into malaria vaccines and treatments, substantially through grants to the Malaria Vaccines Initiative, and others have also funded this initiative. So research into malaria vaccines now has momentum, with some already in field trials. *Business Week* put it this way:

Enter the Gates foundation, which has brokered a truce between industry and the public sector. Since its creation four years ago, it has invested more than \$1.6 billion to speed the development of vaccines and procure existing ones for the world's poor. One of many Gates-backed initiatives is the Global Alliance for Vaccine & Immunization (GAVI), a partnership between industry and the private sector that says it has provided more than 8 million children with access to basic vaccines. A study by the Center for International Development at Harvard University notes that the Gates foundation is outspending the seven most powerful economies in the world combined—helping create a market where none existed.¹²

The last sentence of this comment is the key to what is happening here—creating a market where none existed, by providing a demand with a dollar

value where there was previously none, in Samuelson's terms giving votes to the poor. The Gates foundation plays a pivotal role here. Other foundations have also contributed to medicine in the third world, notably the Clinton Foundation run by ex-president Bill Clinton. This has played a central role in the treatment of AIDS in Africa: the foundation has purchased AIDS drugs cheaply from generic manufactures, bargaining to bring the cost of some common treatments below \$0.5 daily. Suppliers such as Aspen Pharmacare Holdings, Cipla, Hetero Drugs, Ranbaxy Laboratories, and Matrix Laboratories have agreed to accept reduced margins and even to reduce prices further as volumes rise. The foundation has also worked to organize the logistics of diagnosis and treatment, with Western companies providing diagnostic drugs and equipment at a reduced profit margin.¹³

Governments are also beginning to play this role. The Global Fund for AIDS, Tuberculosis, and Malaria is funded primarily by government grants, some in the billions, and uses these to purchase and fund the distribution of medicines. The United Nations' arm UNAIDS acts likewise. Through both of these groups, rich-country governments are providing money to transform the latent demand of poor people for medicines into manifest demand of the type that moves the corporate world. The most recent development is the formation of the International Finance Facility for Immunization, established by the Group of Eight leading industrial countries in September 2005, to which the U.K. government has pledged \$1 billion.

This development clearly has far-reaching implications for pharmaceutical companies: it resolves the dilemma they were facing in the third world—lose money or appear irresponsible. Now, they can play a constructive role and bring their strengths to bear on critical human problems, at a cost to profits that is real but nonetheless acceptable.

Conclusion

The pharmaceutical industry has done well and done good—but it has also behaved badly and stupidly. It has not understood that you cannot price life-saving medicines like you price autos or air travel: too much is at stake and it is politically unacceptable that people should die or suffer only because of their income levels. It has also not understood that the public expects to be

told the whole truth about the safety of medicines to which they trust their lives and those of their loved ones, a point that should have been obvious.

In many industrial countries, the inherent conflict between access to medicines and profits for their producers is resolved by state control of the distribution of medicines. In such systems, pharmaceutical companies can bargain as hard as they wish with the government procurement agencies and yet have no responsibility for deciding who does and does not have access to medicines. So they are not in the political firing line. In the United States, with of the order of fifty million without health insurance, the conflict between access and profits is particularly acute and is a source of immense political conflict, with the pharmaceutical companies inevitably buffeted by this.

The international arena resembles the United States in that there is again an acute conflict between access to medicines by the poor and profits from their provision. In this context we can see progress: foundations and international agencies are stepping in to create a demand on behalf of the poor, allowing the market mechanism to work on their behalf and reducing the conflicts that the pharmaceutical industry faces.

In such circumstances, what is the socially responsible policy for the pharmaceutical industry? Unquestionably, the industry has to put patient welfare clearly above profits, as George W. Merck suggested, and has to be seen to be doing so very clearly. Without this, it will lose the support of the public and governments, which will cost it and its shareholders very dearly in the long run. Putting patient welfare first has implications in several areas, including drug testing and drug pricing. In testing, the industry must clearly operate at the highest level of transparency, making all safety-related information publicly available. In pricing, the industry must recall that society expects all who need them to have access to its products and price accordingly. In the United States, in the absence of radical changes in the health insurance system, this will mean a great extension of operations such as Together Rx Access, but again in a more transparent way and with as much effort put into advertising these as now goes into DTC advertising of some proprietary drugs. Using differential pricing for different income groups, as in access systems such as Together Rx Access, is in fact a natural and potentially profitable response on the part of sellers to a situation where buyers differ widely in income levels and the ability to pay.