im

## Supply-Side Drug Control

By Peter Reuter

For the first time in a generation, we have observed a drug-free presidential campaign. Notwithstanding the confessions of youthful marijuana use by Vice President Gore and the ambiguous statements about not-quite-so youthful use of perhaps-more-dangerous drugs by Governor Bush, neither candidate felt compelled to make more than a passing reference to drug policy. Given the dedication of center and right politicians to interdiction-based "supply-side" controls, this is perhaps just as well for all of us.

American drug policy has been frozen in place since crack cocaine hit the cities in the mid-1980s. Those policies are punitive (in both rhetoric and reality), divisive (certainly by race, probably by age and perhaps by class), intrusive (in small ways for many and in large ways for some) and expensive (\$30 billion to \$35 billion annually). Yet the nation has a drug problem more severe than that of any other rich Western society, whether measured in terms of the extent of drug use, drug-related AIDS cases, or the level of violence and corruption associated with these drugs. Roughly speaking, those other Western nations troubled by drugs (like Australia or Italy) have a per capita heroin problem about the same size as the United States, and a problem with cocaine or amphetamines that is vastly smaller than ours.

The United States' policies are heavily supply-side oriented – that is, they aim primarily to restrict the availability of illegal drugs. Though drugs are indeed extraordinarily expensive compared to the cost of production and somewhat difficult to get, these control efforts seem helpless to put cocaine or

SKIP O'ROURKE/THE IMAGE WORKS

heroin beyond the reach of millions of consumers. The irony is that supply-side enforcement probably has much of its effect through demand-side mechanisms: incarcerating cocaine or heroin dealers is one way of limiting demand, since the majority of those who sell these drugs are also frequent users.

## **SCALING THE PROBLEM**

Seen from one perspective, the American drug problem is narrow and static. No more than two and a half million Americans have substantial problems with cocaine and/or heroin – less than one-fifth the number for alcohol. Those with problems are heavily concentrated in urban minority communities. Methamphetamine abuse remains a much smaller problem, while marijuana dependence, a real phenomenon involving many more people, has much less consequence for those who experience it.

The epidemics of cocaine and heroin addiction have essentially run their course. There have been few new heroin addicts since the early 1970s (notwithstanding patchy indications of increasing heroin use among young middle class adults) or cocaine addicts since the mid-1980s. The addict population is getting older and sicker, though it is still criminally very active; the average age of heroin addicts is now about 45. With early deaths and increasing incarceration, the number of active cocaine and heroin addicts is very slowly declining. Marijuana use has risen among adolescents; whether that presages a new epidemic of cocaine, amphetamine and/or hero-

PETER REUTER is professor of public policy and of criminology at the University of Maryland and a senior fellow at the RAND Corporation. His book, with Robert MacCoun, Drug War Heresies: Learning from Other Vices, Times and Places (Cambridge University Press), will be published in the spring of 2001.

in use remains to be seen.

The most striking characteristics of the United States' response to illicit drugs in the last decade, as already noted, have been its scale and its punitive nature. The federal government spends about \$18 billion annually on drug control, which is carried out by almost all the cabinet departments, from the Department of State to the Department of Education. States and localities spend at least § as much, although it is far more difficult to obtain accurate estimates of these expendi-

tures. Thus, illicit drug control was a roughly \$35 billion government program in the late-1990s, up sharply from \$10 billion in the mid-1980s.

The emphasis on punishment is reflected both in budgets and the extent of incarceration. At least threequarters of the money to combat drug use is spent on apprehending and punishing drug dealers and users.

And despite substantial rhetorical shifts, the federal drug budget has hardly changed its composition in a decade, and state and local governments provide minimal support for treatment or prevention. In terms of punishment, the imprisonment rate in the United States for drug offenses alone is much higher than the rates of most Western European nations for all crimes. For example, France imprisoned 95 per 100,000 in the population in 1995; that same year, the



United States imprisoned 149 per 100,000 for drugs alone.

## MARKET DYNAMICS

These numbers have meaning only against measures of the dimensions of drug trade –

measures that offer more insight than the fact that sales total \$50 billion annually. The vast majority of the hundreds of thousands of Americans imprisoned for selling drugs are from the bottom level of the distribution system. That is hardly surprising, given the sharp

The United States' policies are heavily supplyside oriented - that is, they aim primarily to restrict the availability of illegal drugs.



pyramiding of the cocaine and heroin distribution industries. There are probably just a few hundred people with significant roles as importers. Roughly 400 tons of cocaine enter the United States each year, and since some criminal organizations handle 10 tons or more annually, not a lot of importers are needed. At the other end of the system, it is hard to come up with a figure less than 200,000 for the number of persons involved in cocaine retailing each year, at least on a part-time basis.

Back-of-the-envelope calculations suggest that a regular cocaine dealer might now spend one-third of his or her dealing career behind bars. A transaction has a tiny probability of producing time in prison – perhaps as little as one chance in 3,000. But, to borrow a phrase, the sellers make it up in volume. The crack trade seemed a bonanza to inner-city youth in the mid-1980s; a study of drug dealers in Washington, D.C. showed hourly wages of \$30 from dealing drugs, compared with around \$7 in legitimate employment. The returns now are meager - less than the minimum wage for the vast majority of dealerusers, as compellingly described by Phillipe Bourgois in In Search of Respect: Selling Crack in El Barrio (California University Press, 1996).

Why take these risks, which include violence at the hands of both competitors and collaborators, for such modest returns? As always, opportunity cost is likely to be an important part of the answer; 10 years of addiction and imprisonment make for low potential earnings in the legitimate labor market. Crime is often the only alternative for the many dealers who are 35-year-old high school dropouts. And what is known about the psychology and sociology of crime suggests they are relatively old to commit violent

crimes – which, in any case, are only marginally more profitable.

### **Prices**

One of the mysteries of the last two decades has been the continuing decline of cocaine and heroin prices. Through the 1980s, enforcement apparently became much tougher, and the risk of being imprisoned as the result of being a regular dealer probably quintupled. Yet prices fell by about half. Since 1990, the street prices of heroin and cocaine have stayed constant in nominal terms (and declined modestly in real terms).

If tough enforcement did not raise drug prices, then it might still claim success if it lowered availability. But the data, mostly from surveys of high school seniors, show no decrease. For example, the percentage of high school seniors reporting that cocaine was available or readily available in 1999 (48 percent) was close to the 1991 figure (51 percent). For marijuana, the figure has remained between 80 and 90 percent without any discernible trend since 1975.

Prices have fallen and the drugs remain available to many teenagers. So why has there not been a new epidemic of cocaine or heroin use? The most plausible answer is the one that is least enlightening - fashion. Cocaine, once seen as exciting and not very harmful, is now viewed as dangerous; there are certainly enough miserable looking cocaine addicts on the streets of bad neighborhoods to make the case for the drug's perils to any moderately rational youth. Heroin can now be snorted rather than injected, overcoming the AIDSfear barrier. But even in the era of heroin-chic fashion models, the drug retains a sense of menace for most. It would take a real shift in attitudes to start any major new upturn in these drugs.

Cocaine and heroin remain the dominant

sources of drug-related problems, both in terms of crime and health. There may have been no new epidemic, but the official estimates suggest that there has also been only a modest decline in total consumption of cocaine and none for heroin. Oddly enough, despite the inventiveness of back-street problems. But source-country programs for cocaine are doomed from the start because the price of coca leaf is a negligible fraction of the retail price of cocaine in the United States.

It costs approximately \$300 to purchase the leaf needed to produce a kilogram of cocaine, which retails for about \$150,000 in

# Through the 1980s, enforcement apparently became much tougher, and the risk of being imprisoned as the result of being a regular dealer probably quintupled. Yet prices fell by about half.

chemists, such new drugs as GBH and ketamines have still not built large and lasting markets, though ecstasy is on the edge of doing so. It seems reasonable to expect a big innovation to come along in the next decade. But current enforcement policies are unlikely to have much effect, in part because it is hard to develop effective monitoring systems that provide early warning for novel substances.

## INHERENT LIMITS

The policy story, then, is a mixed one. The drug problem is not getting worse; indeed, it is very gradually lessening. But these gains have been accomplished at great costs in many dimensions. And there are no signs that more intense enforcement would yield further improvement.

Why have supply-side policies apparently reached their limits? The answer lies in the nature of the market.

Start with supply-side programs that attack production in the source countries. Though these account for a small share of the drug budget, they have always had a peculiar glamour and attraction to a culture that looks to Tom Clancy for solutions to public policy

the United States when sold in \$100 units of one gram each, two-third's pure. The modest share of costs associated with cocaine production is easily explained. Production involves cheap land and labor in poor countries; it requires no specialized inputs. Even Bolivia, the smallest of the three producer countries, occupies more than 500,000 square miles – much of it hard to subject to surveillance.

Cocaine refiners can pay what is necessary to purchase the leaf to meet cocaine demand. Assume that eradication efforts lead to a doubling of the price of coca leaf, so that it now costs \$600 for the leaf that goes into one kilogram of cocaine. The change in retail price, assuming the cost is passed along, will be negligible. Indeed, leaf prices have varied enormously over the last decade, while the retail price of cocaine has steadily fallen. If retail prices do not rise, then total consumption in the United States will not decline as a consequence of eradication. In this scenario, there will be no reduction in total production – just more land torn up to plant an environmentally damaging crop.

There is, of course, a less harsh sourcecountry alternative to eradication: alternative

development. Offer the farmers the opportunity to earn more money growing pineapples than coca and they will move the legal crop, the argument goes.

That argument, alas, is subject to the same incompleteness as that for eradication. It assumes that the price of leaf will not increase enough to tempt the peasants back to coca growing. But refiners have every incentive to offer a high enough price to get back the land and labor to meet the needs of the cocaine market in the developed world because the

price of leaf is so small compared with the street price. Peasants will be better off than before the alternative development, but only because they will make more money growing coca. Mexican peasants are substantially better off than those in Bolivia. Yet that has not kept them out of the drug production business. Indeed, the same can be said for Kentucky corn farmers, prominent in the marijuana trade in the United States.

In the face of this sobering economic logic, the supporters of the recent Colombia Initiative (delivering \$1.3 billion to Colombia

ATRICIO CROOKER/ PHOTOS BOLIVIA/ THE IMAGE WORKS



Refiners have every incentive to offer a high enough price to get back the land and labor to meet the needs of the cocaine market in the developed world because the price of leaf is so small compared with the street price.

over the next three years) point to the apparent success of the combination of eradication and alternative development in Bolivia and

Peru, where land under coca cultivation fell from 150,000 acres in 1992 to 60,000 acres in 1999. Certainly, United States support of aggressive efforts to reduce the flow of raw material from Peru to Columbia has helped to make Peru a less attractive source for Colombian refiners and traffickers. But two other changes, which fans of eradication and alternative development efforts do not talk about, are probably as important in explaining the decline.

First, there has been a huge internal migration within Colombia, with perhaps as many as 800,000 people moving away from areas where paramilitary forces have committed massacres to more remote areas where farmers have few commercial alternatives to growing coca. Second, Dr. Richard Vargas, a Colombian researcher, suggests that the breakup of the Cali cartel may have favored the rise of traffickers with less international reach – traffickers more

oriented toward buying their leaf or coca paste from Colombian sources. Consequently, as compared with 10 years ago, Colombia is a more attractive source of leaf, and production has shifted there.

This reflects the production industry's regional rather than national base. The location of production can change for many reasons including interdiction, but there is no evidence that any intervention has lowered total regional production. The package of interventions being implemented in Colombia has little chance of making an observable difference to the flow of drugs to the United States. There is one instance of crop eradication making a noticeable difference – namely the spraying of Mexico's opium fields in the mid-1970s. But the circumstances were sufficiently unusual (drought in many growing areas, a breaking of the French Connection and the withdrawal of the United States' troops from Vietnam, with its connections to the Golden Triangle) that we should probably pay more attention to the fact that it has been a quarter century since the last success than to the fact that it once worked.

Cocaine travels in large bundles in international shipping; seizures suggest that shipments of 250 to 500 kilograms (enough to supply 500,000 retail sales) are quite common. Though large sums may be paid to pilots for flying small planes carrying cocaine or to Honduran army colonels for ignoring



their use of airstrips, these costs still represent a relatively small percentage of the landed value of the drugs. A pilot who demands \$500,000 for flying a plane with 250 kilograms is generating costs of only \$2,000 per kilogram – less than 2 percent of the retail price. Even if a half-million dollar plane has to be abandoned after one flight, it adds only another \$2,000 to the kilogram price.

For ocean shipments, seizure constitutes little more than a random tax collection. The replacement cost of the seized drugs is a fraction of the landed price, so high seizure rates have modest effect even on wholesale prices. Interdiction, in fact, seizes a quite high share – perhaps one-third – of the cocaine that is destined for the United States. Nonetheless, this still leaves plenty of product to support the large United States cocaine market at prices that are modest by historical standards.

Admittedly, it does cost \$10,000 to ship a kilogram of cocaine from Bogota to Miami, when Federal Express would charge only \$100 to deliver a kilo of something legal. And the fact that a semi-processed agricultural product like heroin costs 100 times as much as gold is quite astounding; it is hard not to attribute the differential to enforcement. Jonathan Caulkins, an operations researcher who has modeled cocaine markets, estimates that in a legal regime cocaine might retail for as little as \$5 a gram.

The real question, though, is not whether interdiction raises the price of illicit drugs, but whether it is possible through tougher enforcement to make the drugs much more expensive and less accessible than they are now. And to date, smugglers' adaptability has limited the success of interdiction surges.

Assessing the inherent limits of tough enforcement at the retail level is much more difficult. The supply curve for drug-selling labor is probably shifting; not a lot of young kids want to compete with older sellers who take part of their compensation in drugs and thus gain a competitive advantage. The relatively strong demand for labor for legitimate pursuits in inner cities contributes here as well; legal employment is surely more attractive than it was 10 years ago.

Thus locking up a lot of dealers should make a difference. However, it apparently has not – unless one believes, against the evidence, that the price would have fallen even more in the face of less enforcement.

Much of the effect of enforcement against low-level dealers, where most of the money is spent, comes through the back door. Retail dealers are themselves heavy users of the drugs they sell. In the early days of the crack market, there was talk of high-level dealers maintaining drug-free workplaces. But those days are long past, a consequence of the aging market. So putting a dealer in prison has two effects: one on supply and the other on demand. And in contrast to the supply-side effect, that demand-side effect may be substantial: it's hard to replace old junkies.

Another factor accounting for the stability of prices may be the aging of sellers. As already noted, violent crime is for the young. A market of 35-year-old crack dealers is less likely to be dangerous than one with lots of 20-year-olds eager to try out their Mac-10s. Moreover, homicide itself and the locking up of violent offenders for long sentences has selected out some of the most violent dealers. Enforcement thus may be tougher. But, ironically, other sources of risk have declined as a consequence of that enforcement. A better understanding of market dynamics is needed to separate out these effects.

## THE LIMITS OF THE DEMAND SIDE

Fairness requires an equally objective review

of demand-side programs, drug prevention and treatment. Everyone likes the idea of preventing kids from starting drug use or at least not going beyond experimentation. It appeals to the American preference for fundamental solutions rather than Band-Aids, and it is hard to think of negative side effects. mainstream treatments seem to make a difference, too. The ratios of benefits to costs, even when discounted to allow for the biases of the evaluators, are reasonably high.

But it's tough to get most addicts to enter treatment in the first place. Building stronger drug treatment programs – programs not so

## Putting a dealer in prison has two effects: one on supply and the other on demand. And in contrast to the supply-side effect, that demandside effect may be substantial: it's hard to replace old junkies.

Unfortunately, there is no reason to believe that we know how to immunize kids against drug abuse. A few experimental programs show promising results. But it is unclear how they would perform when scaled up and put in the hands of schools, which are already under pressure to spend more of their limited class time on basic academic subjects.

Moreover, the political marketplace for choosing antidrug programs is wretchedly inefficient. DARE, perhaps the only program that has been subject to frequent evaluations – all negative except those paid for by the DARE organization itself – remains the most popular choice of school districts throughout the nation. Mass media campaigns are notoriously difficult to evaluate. There is an absence of credible evidence on the high-profile media campaign financed by the federal government in the last few years.

The case for treatment is much stronger. Methadone unquestionably helps a substantial fraction of heroin addicts cut down on their use of expensive illegal drugs – which has a direct effect on crime rates. And other

marginalized by the health-care system – would no doubt help. It would be optimistic, though, to suggest that treatment could reduce America's drug problems by, say, as much as one-third in the next five years.

Like it or not, illicit drugs are now a permanent part of the American scene. As with other social problems, we must think less of eliminating the drug problem than of finding ways of managing it better. Both the rhetoric and legal reality of American policy deny that, and thus contribute to the broad social problem even if they reduce overall drug use. A policy that puts so many young, poor minority men and boys in steel cages needs a strong justification in terms of reducing cocaine and heroin use in order to justify the inequity and inhumanity. That justification has not been provided. California Ballot Proposition 36, which shifts nonviolent drug offenders into treatment, was not particularly well written. But it does represent an encouraging sign of Americans' revulsion with drug policies that fly in the face of common sense and justice. M