

THE NUMBERS GAME: LET'S ALL GUESS THE SIZE OF THE ILLEGAL DRUG INDUSTRY!

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Narco-trafficking moves between 20 and 30 percent of the world economy. (Ríos, FARC-EP, 2000, p. 154)

Drugs provide Colombia's biggest source of foreign income, nearly 36 percent of its total gross national product. (Freemantle, 1986, p. 211)

INTRODUCTION

Journalists, politicians, policy makers, and academics frequently use figures on the size of the illegal drug industry. This information is undoubtedly important. It is a factor in many policy decisions and influences the way policy makers, citizens, and journalists perceive the illegal industry and its effects on society. However, specific figures can easily be misconstrued because many of those who quote them are unfamiliar with the concepts and methods of statistics and economics that are required for a proper handling and interpretation of data.

Requests for "just plain facts" are frequent, yet they often emanate from individuals who lack the proper theoretical framework to gauge and analyze them. Data on the size of the illegal drug industry are used in innumerable ways: they are quoted by journalists to impress the public, by policy makers to request appropriations, by government agencies to measure the success or failure of drug policies, by analysts to identify the beneficiaries of criminal activities and antidrug policies, and by the peasants' advocates who highlight coca and opium price injustices. These statistics are even used to surmise that international conspiracies

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are responsible for the perpetuation of ineffective policies. Most users somehow seek incontestable figures that may be used and exploited, dismissing uncertainties and statistical weaknesses, as well as the figures' conceptual complexities. In practice, almost all those who cite figures neglect first to study the methodologies used or even to read the studies that produced them. They insist on "facts," but do not want to be bothered by the devil in the details. The two quotes at the beginning of this essay by a Colombian Revolutionary Armed Forces (FARC) member and an American investigative reporter show the conceptual confusion and unrealistic representations of reality frequently found in the literature.

There is a small cadre of serious drug researchers that strive for objectivity and manipulate data carefully, but the illegal drug field remains deeply flawed in general. Most people have very strong convictions about mind-altering drugs, and their views on drug policies and the effects of drugs on individuals and societies are conditioned by those convictions. Data on illegal drugs are already difficult to collect and interpret, and the emotional and ideological charge carried by most data users leads to widespread data misuse. Figures are often quoted to buttress preconceived and personal agendas. Many times, data are quoted without a reference to sources, at others it even appears that figures are spontaneously produced or invented.

This essay explores a few measurement problems and issues. It surveys the United Nations' estimates of the size of the illegal drug industry and documents a few cases of data abuse and misuse in Colombia and provides some examples of misuse of economic concepts. It finally questions the importance of accurate estimates and draws a few conclusions.

MEASUREMENT PROBLEMS AND ISSUES

Measuring the illegal drug industry raises innumerable conceptual, technical, and political issues. First of all, the obstacles to statistical data collection are daunting. The illegal nature of the industry precludes direct measurement. Therefore, researchers have to appeal to, and rely on, satellite photos, peasant interviews, journalistic reports, hospital overdose statistics, police records, and many other largely indirect measures and sources. The estimates available are based on the measuring of several variables. Some look at total illegal revenues, such as the size of the American illegal market or the revenues accruing to the Bolivian, Colombian, and Peruvian illegal industries. Estimates can also be made of the revenues and value added at each stage of the business and in each country. Others focus on the direct and indirect employment generated by the illegal industry. Still others measure the size of laundered profits and the ways in which these are laundered. Further assessments can be made on the basis of the value of chemical products used in drug processing that is generated in different countries. Particular attention

has also been paid to estimates of the effects of the illegal drug industry on each country, including costs and benefits to the private and public sectors. On the demand side, estimates that are similarly difficult to make are produced for the number of drug users and addicts, the number of working days lost because of drugs, and the medical and productivity costs of drug use.

Any estimate of the size of the illegal drug industry requires that a series of steps be taken and that assumptions be drawn at each one of them. These include estimates about coca and poppy acreage, the frequency of coca leaf harvests, the drug content in coca and opium, the quality of the chemicals used and the skills of the chemists employed, the amount of drugs seized, the amount consumed in different markets, and drug prices at each stage of the production and marketing chain.¹ The resulting estimate is crucially dependent on those assumptions, and the range of possible results is extremely diverse. For example Rocha (1997, pp. 239-243) estimates Colombian net cocaine revenues following several scenarios, resulting in an extremely wide range from \$161 million to \$3.96 billion in 1991, from \$331 million to \$3.32 billion in 1992, from \$357 million to almost \$3 billion in 1993, and from \$194 million to \$2.62 billion in 1994. This exercise clearly illustrates the weakness of available estimates, the need to review each estimate's methodology before using the results, and the use of great caution when handling the estimates. A clear conclusion of Rocha's work is the need to assess ranges of possible versus most likely estimates. In other words, any assessment that provides a single figure without providing any evaluation of the possible range or variance is not very helpful, although it can prove politically expedient for certain groups.

Statistical and technical issues are not the only problems related to the gathering of illicit drug data. Psychoactive drug issues cut among many disciplines and trigger strong feelings. Many data users frequently lack the training to understand the data limitations while many others use the data to support positions that have been formed previously and manipulate them for political and ideological purposes. The debates about illicit drugs are deeply influenced by each person's training and beliefs, and the communication among discussants is therefore frequently shrouded in preestablished beliefs.² Morals and ideology tend to play an extremely strong role in those debates. For these reasons, all illicit drug data can be manipulated for political gain.

Some examples illustrate this point. Studies of the costs and benefits generated by the illegal industry produce diverse results depending on the author's position. National Institute on Drug Abuse (NIDA, 1992) estimates of the economic costs of illicit drug consumption, for instance, are based on the concept that all drug consumption is drug abuse. According to this logic, all drug consumption is condemnable, a position that places all blame, and therefore costs, on drugs. These

include the costs of some repressive polices such as incarceration of nonviolent minor drug dealers, which criminalizes large numbers of minority youths. All of these costs are attributed only to drugs, implicitly denying that diverse policies generate different distributions of costs and benefits and that those should be part of the policy choice criterion. In a similar way, this reading attributes the costs of HIV transmission via drug injection solely to drug consumption, not to policies that prevent the distribution of clean needles and syringes. In this Manichean perspective, all costs are ascribed to the scourge, and no weapon is inappropriate in this struggle against evil.³

Contending positions on illicit drugs are conditioned by strong convictions and beliefs that symbolize and prolong a debate between conflicting visions of the world that are rarely acknowledged or discussed. The illicit drug debate touches at the center of at least three fundamental silent contentions. The first opposes American Puritanism to Latin American anomie; the second, American Puritanism to European Pragmatism; and the third, within Latin American countries, opposes the "White" elites to the politically repressed lower classes and ethnic minorities (Thoumi, 2005). Conflicting nationalist feelings frequently make these silent contentions more complex.

Estimates on the illegal drug industry can be elaborated following a reasonable methodology that takes into account the many pitfalls and difficulties inherent in the process. The few academic data users understand the limitations of the figures produced, but most other users are journalists, government officials, and politicians that fail to understand those limitations or simply use the data to promote their own agendas. These data are commonly handled to justify ineffective polices, to claim resources for bureaucracies as part of exculpatory arguments to justify a country's involvement in the illegal industry, and, on a few occasions, to do rigorous academic analysis. The following sections illustrate some cases that show how illegal drug data are wrongly produced and misused.

THE UNITED NATIONS ESTIMATES OF THE SIZE OF THE WORLD ILLEGAL DRUG INDUSTRY

The United Nations figures published by United Nations Drug Control Programme (UNDCP)⁴ are a main drug data source in the world. These data are also protected by the technical aura of the UN that is respected by most researchers, journalists, and policy makers as reliable, authoritative and objective. The UN is perceived as an organization with a professional staff that produces data that can be used with confidence. Indeed, it is widely known that the UN estimated the annual illegal drug sales in the world at \$500 billion. This figure is frequently used in the Andean countries to highlight the small size of the revenues generated for Colombian, Peruvian, and Bolivian coca growers and cocaine traffickers relative to

the overall size of the world market. Indeed, why quarrel with the Andean countries when Colombians receive only about \$3 billion, Peruvians \$1 billion or less, and Bolivian \$600 million, insignificant figures amounting to one percent or less of the total world drug revenues.

The first United Nations' *World Drug Report* (UNDCP, 1997a) published in 1997 states: "Many estimates have been made of the total revenue accruing to the illicit drug industry – most range from US \$300 billion to US \$500 billion. However, a growing body of evidence suggests that the true figure lies somewhere around the US \$400 billion. ... a US\$400 billion turnover would be equivalent to approximately eight percent of total international trade" (UNDCP, 1997, pp. 123-124).⁵ The history of these estimates is interesting, if very frustrating. Naylor (2002, p. 33) traces the origin of the \$500 billion to the late 1980s: "The \$500 billion figure was the result of 'research' attempted by the United Nations agency responsible for coordinating the global assault on drug trafficking – when the boss was desperate for a quick number before a press conference" after which that figure received widespread publicity and put UNDCP in a delicate position since it had to justify it.⁶ Carlos Resa-Nestares found an earlier source for the \$500 billion figure: "The global drug trade may run up to \$500 billion a year, more than twice the value of all U.S. currency in circulation. The American market, the world's biggest for these drugs, produces annual revenues of a least \$100 billion at retail – twice what U.S. consumers spend for oil" (personal communication from Resa-Nestares citing Kraar, 1988).

UNDCP does not have enough personnel that can be dedicated to basic research. Its research section is very small: it is led by a well-trained economist who supervises an economist-statistician, two or three other professionals, a couple of assistants, and one secretary. It has multiple responsibilities: it keeps a very large world-wide illegal drug data bank; it is required to produce a *World Drug Report* every two years; it publishes an annual report on "global illicit drug trends"; it supplies data and other information required by the Commission on Narcotic Drugs and the International Narcotic Control Board; it provides inputs to other ODC documents and supplies data for speeches and other public presentations by ODC personnel. Despite the efforts of the committed and hard working group of professionals that make up the research section, it simply does not have the capability to conduct significant critical studies and to evaluate in detail the quality of the data it collects. Indeed, a large proportion of the section's work is devoted to answering short-term demands. The *World Drug Report*, the research section's most substantial product, requires the hiring of several consultants who write chapters and sections of the report.

After the \$500 billion "estimate" was divulged, the research section revised in more detail the data it had available and concluded that such a number was exaggerated and could not be used in the 1997 *World Drug Report*. It is apparent

that the original \$500 billion figure was too high, and the UNDCP had to avoid embarrassment. To avoid potential critics, the UNDCP decided to lower it somewhat and came up with \$400 billion. This author has questioned several UNDCP members about the procedure that led to this figure, and the best explanation they could offer was that they surveyed an array of estimates made in different parts of the world and came up with approximately \$365 billion, a figure that was rounded up to \$400 billion. If they had arrived at \$335 billion, would they have rounded it down to \$300 billion?⁷

The lower \$400 billion figure is claimed to have been based on another UNDCP (1997b) publication. This is a 60-page study, part of UNDCP technical series, that covers a wide set of issues including drug production, seizures, consumption, and the social and economic consequences of drug abuse and trafficking. These include the effects on employment and productivity, determinants of illicit drug prices, effects on balance of payments, on financial systems, on investment and savings, on family and community, health, education, environment, crime, corruption, and dangers for civil society. This is certainly not a document arrived at by a serious effort to determine the size of the illegal drug industry, although it does put together the results of various studies to obtain a figure for the total world turnover of the illegal industry. However, those studies do not follow a common methodology and have been written by unrelated groups. The result is a total that includes not only apples and pears but also bananas and an assortment of tropical and temperate zone fruits, an aggregation of incomparable elements.

UNDCP's statement that illicit drug trafficking accounts for 8% of world international trade is yet more incomprehensible than its \$500 or \$400 billion figure because it is clearly a comparison between apples and pears. The \$400 billion figure is turnover at the retail level, a much higher one than the value of illicit international drug trade.⁸ Using the cocaine market as an example, one can say that the wholesale cocaine price ready for export in "Andinia" is about \$1,500 per kilogram. The wholesale import price in the United States is around \$15,000 to \$18,000, and the retail value sold by the gram can reach \$120,000. The question is which of these figures should be used in the comparison with global international trade? It is obvious that it should be one of the first two, but not the third one used by UNDCP.

If one uses "Andinia's" export price, the estimate should be about 80 times lower than if one uses the last figure, that is, about 0.1% of global trade. If one uses the United States import price, the figure would be about 1% of global trade. Apparently, none of these two estimates were satisfactory to UNDCP, perhaps because they did not show that illicit drug trade represented a large share of global international trade. Furthermore, any serious estimate should study the difference between wholesale export and import prices that is about 1,000%, compared to about 5% in licit trade.

THE NUMBERS GAME

The actual trade routes are another interesting difference between licit and illicit trade. Legal trade normally flows directly from producer to user country. Illegal trade frequently goes through several transit places that charge a "passing through tax" before reaching the final destination. The nature of transportation costs in illegal goods is very different from those in the legal sector.

It is also worth noting that by 1999, the UNDCP had not attempted to follow up its efforts to estimate the size of the world illegal drug market. That year, the Financial Action Task Force (FATF) decided to begin work to assess the size of the world illegal economy and found it convenient to start with an estimate of the illegal drug market, a task that was considered easier than estimating other illegal activities, given the large work on drugs already available. FATF hired Peter Reuter, a well-known economist who has done extensive work on illegal drug markets, and produced an estimate. This job had the full cooperation of the UNDCP, which opened its data bank to the researcher. The resulting study is probably the most serious attempt to ascertain the size of the world illegal drug market and resulted in an estimated range between \$45 and \$280 billion. Unfortunately, after an internal debate in the FATF it was decided not to publish the study because some country members expected a larger figure.⁹ The wide range of the estimates reflects the diversity in possible assumptions required at several stages in the production, smuggling, and marketing chain.

SOME CASES OF DATA ABUSE AND MISUSE IN COLOMBIA

Many of the most popular opinion makers and most important intellectuals of the country use illegal drugs data to absolve the country's involvement in the illegal trade and to place on foreigners the responsibility for that participation. Data are used to "prove" that the United States promoted ineffective anti-drug policies because of the benefits that that country derives from the illegal industry: "Far from generating any wealth in Colombia, (illegal drugs) have mired the country in corruption and violence. In the United States the drug business increases its gross national product. In Colombia it destroys it" (Caballero, 1996, p. 139). Interpretations of this nature have many adherents in Colombia and other Andean countries.

The most coherent exposition of these views in Colombia is found in Orejuela's (1997) book introduced by Luis Carlos Restrepo, a very well known writer and currently the High Peace Commissioner in the Uribe administration. This author makes selective use of the data and argues that during the 1970s, the United States "promoted a new war within its borders" (p. 20), "to take away the market for Colombian marijuana to benefit the California Golden" (p. 29), and to control a "retail market of approximately \$25 billion" (p. 29). The policy goal is to "completely Americanize the BUSINESS" (p. 30), because "the country has a huge number

of 20 million addicts" (p. 32-33).¹⁰ The only data source used by Orejuela is an unpublished report by Colombian researcher Carmenza Echeverri de Restrepo, which also claims that drug trafficking is the largest industry in Miami, exceeding tourism.¹¹ According to Orejuela, drug trafficking involves about 20 million people in the United States (p. 85, p. 216) or about 12% of the labor force. The book also misquotes sources: "the International Narcotics Control Board acknowledged in March 1997 that the United States accounts for 90 percent of the synthetic drugs world consumption" (p. 88). Unfortunately, there is no source provided.¹² The *World Drug Report* published that year states that synthetic drug consumption in the United States is high (UNDCP, 1997a, pp. 29-30) but it does not provide country market shares. According to Orejuela, the situation is simply that the gringos want to monopolize a very good business and that "to protect its economic interests the empire appealed to punitive policies" (p. 148). Furthermore, "extradition was established to judge those Colombian traffickers that harmed the gringo economy in the empire's tribunals" (p. 148).¹³

The assertion that the American economy benefits from illicit drugs is taken by many as a given in Colombia because of the widespread belief that the United States would not maintain prohibitionist and punitive policies if they were not a good business. However, a simple national accounts analysis shows the opposite. In basic economics texts, it is shown that $Y=C+I+G+X-M$. A proposition that spelled out means that the total aggregate demand in a country is equal to the sum of expenditures in consumption, investment, government, and exports minus imports. American prohibitionist policies increase the value of imports (M) and lowers income (Y). Those policies increase Colombian exports (X) and increase Colombian income. In other words, they have the opposite effect to that asserted.

It is important to point out that this analysis is based on accounting. Some may argue that the categories Y, C, I, G, X and M are ideologically biased. Theories and models that use these are certainly influenced by ideologies, but their specific use in accounting is not. For instance, data counting males, females, gays, people that are tall, short, fat, thin, Caucasian, Black, etc., can be used in a variety of ways, but it is not possible to argue that simply counting them is ideologically motivated.

Another frequent argument suggests that the great profits from drug trafficking remain in the United States, which implicitly indicates an unjust distribution of illegal drug profits. Statements of this nature suggest that drug addicts are a natural resource to be exploited and that drug trafficking profits are a net increase in a country's income. However, when an addict consumes drugs, he or she lowers his or her consumption of legal goods and services, and when addiction causes him or her to stop working, he or she becomes a burden on society. In a best-case scenario, illicit drug expenditures are transferred from the legal to the illegal sector, and in the

THE NUMBERS GAME

worst one they generate a decline in income for the country.¹⁴ There is no doubt that in the illegal industry, profits account for a much larger share of value added than in the legal one. This higher share represents the remuneration to risk. However, it is not possible to argue from this that the American economy benefits from the illicit drugs industry.

It is also worth mentioning that a comparison between illegal drugs and legal agricultural commodities shows that the main differences in the cost increases along the production, international trade, and marketing chain are found in the international trade stage. For legal commodities the difference between the export and the import price is almost always less than 10% of the export price and frequently much lower. In the case of cocaine and heroin, the difference is about 1,000% (Reuter & Greenfield, 2001). The difference between import and retail prices is in absolute terms also much greater for illegal drugs, but it tends to be proportional to that of legal commodities. In other words, drug and other agricultural commodities retail prices are approximately the same percentage of import prices in the United States and Western Europe.

If it were true that the illegal industry contributed to economic growth in the United States, we would be confronting a very innovative theory of economic development through illegality. Following this theory, one would recommend that Colombia declare tobacco illegal to increase cigarette prices and smuggling that would then generate large profits that would remain in Colombia and increase the country's national income.

SOME EXAMPLES OF MISUSE OF ECONOMIC CONCEPTS

The National Planning Department of Colombia has produced estimates of the economic costs generated by the illegal drug problem in Colombia (Pérez, Vergara, & Lahuerta, 2002). This work follows the methodology used by the National Institute on Drug Abuse (NIDA) (1992) that classifies as a cost all government and private expenditures that one way or another can be associated to the illegal drug industry. These costs include some effects of anti-drug policies, price increases caused by the illegal drug boom, and social investment in education mandated by the constitution. This approach appears designed to maximize the costs generated by the drug problem in Colombia and has profound conceptual deficiencies. First, it conceives the illegal industry as an exogenous scourge that befell in Colombia through accident or bad luck, while government policies, social institutions, history, and other factors played no role in the development of the illegal industry. In this perspective, the illegal drug industry is the root cause of the country's problems. Second, investments in alternative development programs, physical and social infrastructure in illegal crop areas including education and health projects, and expenditures in conflict resolution

systems and strengthening the judiciary system are costs attributed to the illegal industry. In other words, if it weren't for the illegal drug industry, the government would not spend any money in those regions, and, thus, those expenditures are costs due to the drug industry even though all of those expenditures are required by the country's constitution. Third, some indirect effects such as the increase in AIDS associated with intravenous drug injections are attributed wholly to the existence of illegal drug demand without taking into account the fact that the government refuses to allow distribution of clean needles and syringes to addicts. Since this is perceived as a "holy war," the government cannot use "immoral" harm reduction policies that would be tantamount to collaborating with the devil. If policies generate costs, these are attributed to drugs because repressive policies are considered necessary to combat immorality. Fourth, some economic effects of the illegal drug industry development are classified as costs even when they are not. For example, price increases in noninternationally tradable goods and services in areas booming because of the illegal industry are termed "costs." In other words, salary increases that benefit workers and are generated by an employment boom in coca growing areas are classified as costs. Finally, all these costs are added up and yield a great sum.

The justification provided by the National Planning Department to produce this estimate is simply that the methodology used is "international," which means that it is used by a superior authority, in this case NIDA, which is clearly biased. By appealing to this authority, the authors are exempted from discussing in detail the nature of the effects of the illegal drug industry, to justify why every expense is a cost, to separate the real social costs generated by the illegal drug industry from the costs caused by various policies, and to acknowledge that the illegal drug industry does generate some economic benefits. It remains to be ascertained whether such authors realize that by using this "international methodology," they are implicitly accepting a "war on drugs" approach to deal with illegal drugs in Colombia.

HOW IMPORTANT ARE THE ESTIMATES? IS IT IMPORTANT TO HAVE ACCURATE ESTIMATES?

The need for quality and the importance of estimates about illicit drugs depend on how they are used. As noted above, these estimates are often voluntarily or involuntarily misinterpreted and misused. In most occasions, those who appeal to so-called facts regarding drugs lack a defined rigorous model to process the data and produce a serious analysis. Drug facts are frequently used to underscore how important the problem is, to argue that a particular country or social group benefits unfairly from illegal trade, that a particular country's economy depends on illegal drug revenues; that a financial sector is also dependent on illegal drug deposits, that particular organizations require larger budgets, that some countries need and are deserving of greater international cooperation, and on occasions to argue that

total drug income in a particular country is relatively small. All these and many other uses of the illegal drug data are highly biased and politically motivated, and consequently do not require accurate data. Indeed, many benefit from inaccurate and exaggerated figures. Such approaches would alter and interpret the data for their convenience.

Reuter (1996) has argued forcefully that data on the illegal drug industry have been decorative and has not been taken into consideration in policy formulation. The lack of policy relevance of these data translates into the lack of real incentives to produce accurate data. This is another reason for the poor quality of the data and the lack of concern among many of those charged with data production.

It may be argued that accurate estimates are needed for rigorous studies of the effects of the illicit drug industry on a country. However, the evidence regarding the effects of the industry on several countries shows the complexity of the process by which effects develop and especially that those effects are not directly related to the size of the current illegal activity. For instance, all estimates from the Andean countries show that from the late 1970s to the late 1990s the share of GDP generated by illegal drugs in Bolivia and Peru was substantially larger than in Colombia. Furthermore, in the three countries that share declined through time and by the late 1990s it was significantly lower than 20 years earlier (Thoumi, 2003).

Despite those data, there is a consensus on the fact that this industry's repercussions on Colombia have been much greater than in the other two countries and that its current effects on Colombia are much greater and negative than in the past. There is also a consensus on the point that the nature of the effects has evolved through time. Indeed, it may be argued that the effects crucially depend on the structure and institutions of each country and the policies followed and that the dynamics of positive and negative effects are very different. Positive effects appear to be short lasting, while negative effects are cumulative and become aggravated in the long run. For example, during the 1970s and 1980s the illegal drug industry generated real estate and contraband booms in Colombia that most citizens perceived as positive. By the late 1990s, the industry was clearly funding the Colombian "ambiguous war" and its economic effects were clearly negative.

This evidence shows that accurate estimates are less important than what many might think. The illegal drug trade has been "large" in those three countries, but what has been important is not merely the size of the trade, but its ability to alter social behaviors, increase corruption and crime, and fund insurgent and counterinsurgent guerrillas. The size of the illegal drug industry is not particularly relevant as a cause of these social developments. For instance, the drug industry funding of Colombian politicians in 1994 amounted to no more than 1% of the conservative industry's

annual profit estimates, and yet, this forced Ernesto Samper, the elected president, to govern in the midst of a continual four year political crisis (Thoumi, 2003).

Large estimates are used to argue that the illegal industry is the cause of many social ills. The evidence from the Andes indicates that in regard to illegal drugs, traditional causality is not relevant. Rather, it is necessary to focus on the process that brought the illegal industry to that region, which concentrated trafficking in Colombia, allowed the development of large coca fields, and prevented the law enforcement agencies from achieving long-lasting success. The illegal drug industry has had dramatic effects on institutions and values in the Andes. The illegal industry developed in this area mainly because institutions were weak, state legitimacy was challenged by many excluded from power, and law enforcement was ineffective and arbitrary. The point is simply that illegal industries and criminality develop in societies with structures, institutions, and values that make them vulnerable and prone to those developments. The illegal industry transplants itself in these societies and acts as a catalyst of social processes in which the negative developments outweigh the positive in the long run. The weaker the society, the smaller the illegal industry required to play a key role in that process.

Social processes are very complex, and they must be studied on a case-by-case basis to be understood. Bolivia is an intriguing case. The 2003 peasant uprisings that led to the resignation of President Gonzalo Sánchez de Losada took place when illegal drug income in that country was at the lowest level in decades and were caused precisely by the successful eradication program that the country had implemented since 1998.

Data about illegal drugs are also used to mask policy failures. Forced and voluntary crop eradication statistics are frequently used to show the "success" of repressive policies. Those data are misleading because the variable measured is not a good indicator of policy success. There is no doubt that if coca is wiped out from the face of the earth, cocaine would not be produced, except synthetically. However, because most eradication leads to crop displacement, acreage eradicated is not a good measure of policy success. A much better indicator would be cocaine retail prices and purity measures. Indeed, eradication data are perhaps as significant as those body counts during the Vietnam War showing that the United States won the war by a score of less than 59,000 Americans compared to over 1,500,000 Vietnamese dead.

CONCLUSIONS

Data on the illegal drug industry has a high demand, but many data users frequently lack the training to understand the limitations. Still many others use the data to support positions that have been formed previously and manipulate them for political or ideological purposes.

Good data production requires substantial research and deep knowledge of the societies studied. The great number of possible assumptions needed to produce estimates implies that a single estimate cannot be reliable. Any serious exercise should produce a range of these, and any assessment should be interpreted only as an approximate order of magnitude. Unfortunately, politicians and journalists want sound bites that a complex estimate cannot produce but that a single number can.

As argued in the last section, the importance of having “hard” numbers is greatly exaggerated because most uses are political and biased in nature and because most users do not have a formal model in which to apply the data. Furthermore, given the role of illicit drugs as a catalyst that accelerate social processes already in progress, the influence of illegal drugs on society depend not only on the size of the illegal industry, but also on the structure, institutions, and values of the society and on the history of past drug income, anti-drug policies, and the changes in institutions and values that had occurred. Thus, in a country like Colombia, the illegal drug industry is today smaller than 20 years ago, but its role in Colombian society today is a lot more negative than in previous decades.

Finally, the moral of the story is just that it would be nice to have accurate data on the illegal drug industry, but it would be a lot nicer if the data were used with scientific rigor, with users acknowledging their limitations and avoiding political biases.

NOTES

- ¹ Thoumi, (2003) summarizes the measurement problems associated with these estimates.
- ² These points are developed in detail in Thoumi (2005).
- ³ Interestingly, the Colombian government has adopted the same methodology (Pérez, Vergara & Lahuerta, 2002)
- ⁴ In 1998, the UNDCP was put under the United Nations Office of Drug Control and Crime Prevention (ODCCP) that encompassed UNDCP, a Global Programme Against Money Laundering and a Center for International Crime Prevention (CICP). ODCCP was restructured and renamed again in 2002. Today it is called UN Office of Drugs and Crime (ODC) and includes UNDCP and CICP. The Global Programme Against Money Laundering was split between UNDCP and CICP.
- ⁵ Curiously, the report does not provide any reference to the “many estimates” cited.
- ⁶ Other illegal drug data have suffered much greater adjustments: “The U.S. estimate of Mexican marijuana production was dramatically increased in the 1990 *INCSR (International Narcotics Control Strategy Report)*, from a total of 5,700 tons in 1988 to 47,000 tons in 1989, as the result of changes in estimation

techniques. No details of those changes were provided in the published document. Yet it was possible to determine, with no great technical skill, that these figures were implausibly high and should have never been published” (Reuter, 1996).

⁷ Reuter and Greenfield (2001) argue that UNDCP derived this figure by multiplying production estimates times the high United States and European retail prices while most opiates are consumed in low-income countries and are sold at lower prices. This might have been the case, but during my work at ODCCP in Vienna I did not find evidence of these estimates.

⁸ The points made in this paragraph are also made by Reuter and Greenfield (2001).

⁹ Reuter and Greenfield (2001) use inputs from the unpublished study.

¹⁰ This implies that at the end of the 1970s, about 8% of the American population was addicted to marijuana. Since drug consumption is highly concentrated in males aged 15-50, one can conclude that about one third of the male labor force in that age group was addicted. Reuter (2001) arrives at a similar implausible implication of some U.S. estimates of Mexican marijuana imports: “that implies that we need 35 million very heavy marijuana smokers to consume 35,000 tons; that would be about half of all persons aged 15-35, the heavy user ages.”

¹¹ This report was cited at a 2001 conference hosted by York University in Toronto, Canada. I requested in vain a copy of the essay from those who used it but could not get it. A similar request from Professor Lisa North, director of the Center for Latin American Studies, did not succeed. An Internet web search finds Dr. Echeverri de Restrepo at www.unilibrecali.edu.co. She is a professor of administrative law at Universidad Libre de Cali. Her C.V. shows four main publications on Colombian Constitutional Law but does not include the report mentioned by Orejuela.

¹² The International Narcotics Control Board does not have a research staff that can be devoted to the production of estimates of this kind. Those are provided to the Board by UNDCP’s research section.

¹³ Illegal drug data are also used by Colombian guerrilla organizations to show their own importance. For example, FARC argues that “drug trafficking moves 20 to 30 percent of the world economy and drug trade value exceeds oil and it is only exceeded by that of weapons” (Ríos, 2000, p. 154). These figures exaggerate the importance of illegal drugs in the world economy and the relevance of FARC as a principle political force controlling an important cocaine source.

¹⁴ In his comments for this paper, Professor Naylor suggested that prohibitionist policies in the United States might raise aggregate demand if drug users lower their savings to purchase drugs by an amount that exceeds the increase in the

THE NUMBERS GAME

value of imports. This is a theoretical possibility that ideally could empirically be tested. Unfortunately, given the illegal nature of the drug market, it is not possible to obtain good data to test that hypothesis. However, considering that most users are young and unlikely to save, that addicts tend to lose earning power, and that the savings rate in the United States has been at remarkably low levels for at least the last 10 years, one can safely state that the scenario raised by Professor Naylor is very unlikely to occur.

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