WOLA

Lowering Expectations
Supply Control and the Resilient Cocaine Market

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April 14, 2009

SUMMARY

- Data recently made public by the Obama administration show that U.S. cocaine prices continued to fall through 2007, while purity remained high.
- The new data undermine well-publicized claims by George W. Bush administration officials that supply disruptions had achieved unprecedented cocaine shortages in the United States.
- Cocaine's annual average U.S. retail price per pure gram in 2007 was the lowest figure on record, nearly 22 percent lower than in 1999, the year before Plan Colombia was launched.
- The inability to drive prices higher over this period squares with recent U.S. and UN assessments that Colombian and overall Andean cocaine production has grown.
- Fresh claims of market disruptions and cocaine price spikes should be placed in historical perspective; past disruptions have proven temporary.
- Helping Mexico to reduce drug-related violence and to improve public safety will not necessarily entail a sustained reduction in the flow of illicit drugs into the United States.
- The United States can and should do more to reduce demand for cocaine, but a dramatic reduction in the size of the lucrative U.S. cocaine market should not be expected any time soon.
- A realistic and humane drug policy should focus on harm reduction – aiming to minimize the harms caused by illicit drug production, distribution and abuse, but also striving to minimize the damage done by policies meant to control drugs.

En route to Mexico in March, Secretary of State Hillary Clinton slammed U.S. drug policy. "Clearly," Clinton said, "what we've been doing has not worked," adding that the United States' own "insatiable demand for illegal drugs fuels the drug trade."[1] Just days earlier, U.S. Special Representative for Afghanistan and Pakistan, Richard Holbrooke, called U.S. efforts to eradicate Afghan opium poppy crops the "most wasteful and ineffective program I have seen in 40 years."[2]

Condemnations of U.S. drug policy are not likely to surprise most Americans – an October 2008 Zogby/Inter-American Dialogue national survey found that 76 percent of likely voters considered the so-called "war on drugs" to be "failing."[3] But the fact that such views are being voiced so candidly by high-level U.S. officials is a real change. In Congress as well, there are signs of drug war-weariness and a readiness to explore new approaches, most notably in Virginia Democratic Senator Jim Webb's recent introduction of legislation to create a national commission to chart a comprehensive strategy for criminal justice reform, including, according to Webb, "the whole area of drug policy."[4] And at the state level, governments facing budget deficits are rolling back harsh drug sentencing laws[5] that have fueled the nation's skyrocketing incarceration rate – the number of people behind bars for drug offenses has grown exponentially, rising from fewer than 50,000 in 1980 to more than 500,000 today.[6]

Gil Kerlikowske, President Obama's nominee to direct the White House Office of National Drug Control Policy (ONDCP) has pledged that, should he be confirmed, the national drug strategy will be "rigorously assessed and adapted to changing circumstances."[7] The decades-long U.S. effort to curtail the availability of illicit drugs – primarily with punitive enforcement strategies like forced crop eradication abroad and massive incarceration at home – is certainly ripe for rigorous assessment.

For a new Administration and Congressional leaders who appear inclined to take the evidence seriously in contemplating more promising drug policy options, there is plenty to consider. As it happens, ONDCP has already quietly released new data on the price and purity of cocaine that are very relevant to assessing the impact of U.S. supply-control policies.

New Data, Same Story: Cocaine Prices Still Falling

Reducing the availability of drugs like cocaine has been a perennial goal of U.S. drug policy, in hopes that higher prices and lower purity would translate into less consumption. But since the early 1980s, cocaine prices have been falling, not rising, according to two comprehensive analyses, one from 2004 and the other from 2008. The 2008 study, which was recently made public by the Obama administration, shows that U.S. cocaine prices continued to fall through 2007, while purity remained high.[8] The new data undermine well-publicized claims by George W. Bush administration officials that supply disruptions had achieved unprecedented cocaine shortages in the United States.

The new cocaine price and purity estimates update a 2004 analysis conducted by RAND researchers for ONDCP, which found U.S. wholesale and retail cocaine prices to be at or near historic lows as of mid-2003.[9] Subsequently, however, President Bush's drug policy director, John Walters, announced cocaine price spikes in November 2005 and in November 2007, crediting U.S.-backed anti-drug operations in Colombia and Mexico for achieving dramatic supply disruptions.[10]

WOLA expressed caution about the Bush administration's assertions, not about the plausibility that prices had spiked, but about the magnitude and durability of the market disruption. Cocaine prices have fluctuated many times over the years, but with a clear downward trajectory. "Based on the historical record," WOLA maintained in November 2007, "it would be more realistic to expect that, sooner rather than later, cocaine prices will fall again as suppliers adjust and availability rebounds."[11]

(It is also important to note that price increases, when they do occur, can bring unwanted consequences, such as increased predatory crime. For example, in November 2007, police in Washington, DC, speculated that an increase in violent crime may have been linked to temporary cocaine supply disruptions. "When there's the same amount of demand and less supply, people are going to try to get what's out there," said Brian Bray, head of the local narcotics division. "That's when you see violence on the street level. A lot of these beefs are drug-related. A lot of homicides are drug dealers fighting over turf and supply."[12])

Walters' claims were greeted with skepticism by influential policymakers and the media.[13] For one, the price estimates that Walters used to support his assertions in 2005 and again in 2007 were apparently derived using methods different from those used by RAND researchers in their comprehensive 2004 study, but details about the new methods were not disclosed. In addition, the data presented by Walters in 2005 and 2007 covered only brief stretches of time (two to four years), a presentation technique that magnifies the short-term variability in the data and excludes consideration of long-term trends.

Consequently, in November 2007 the *Washington Post* "Fact Checker" concluded that Walters had "failed to provide historical data to back up his claim of an 'unprecedented disruption' to the cocaine market."[14] WOLA and other observers suggested that, to be credible, updated price and purity estimates should be generated using the same analytical methods used by RAND in its 2004 study, and should include several decades' worth of data, to put the latest findings in proper historical perspective.

An Inconvenient Truth

The report recently released by the Obama administration provides fresh evidence with which to evaluate Walters' claims, and more generally, gauge the impact of years of aggressive supply-control efforts on cocaine availability. Prepared for ONDCP by the Institute for Defense Analyses (IDA), the study is based on the Drug Enforcement Administration's STRIDE database and employs the same methodology used by RAND researchers for their 2004 analysis. The findings stretch over a 27-year period (from 1981 through 2007) and are reported in constant 2007 dollars.[15]

Curiously, while the IDA report is dated July 23, 2008, the results were not made public until after President Obama took office in January 2009 and named Edward Jurith as Acting Director of ONDCP. It does not seem unreasonable to suppose that if the IDA report had bolstered Walters' claims of supply-side success, then the findings might have been released – perhaps with some fanfare – while President Bush was still in office and Walters was still in charge at ONDCP.

Annual Price and Purity Findings

In fact, the IDA analysis undermines Walters' claims, as it shows cocaine prices continuing to drop even as purity remained relatively steady. Most notably, cocaine's annual average U.S. retail price per pure gram in 2007 was the lowest figure on record, nearly 22 percent lower than in 1999, the year before Plan Colombia was launched, and more than 50 percent lower than in 1988, the year before President George H.W. Bush announced his Administration's "Andean Initiative" in an attempt to curb cocaine production. Moreover, cocaine's average retail purity in 2007 (64 percent) was comfortably within the range that has prevailed since 1988 (low of 58 percent, high of 74 percent, with a median of 67 percent).

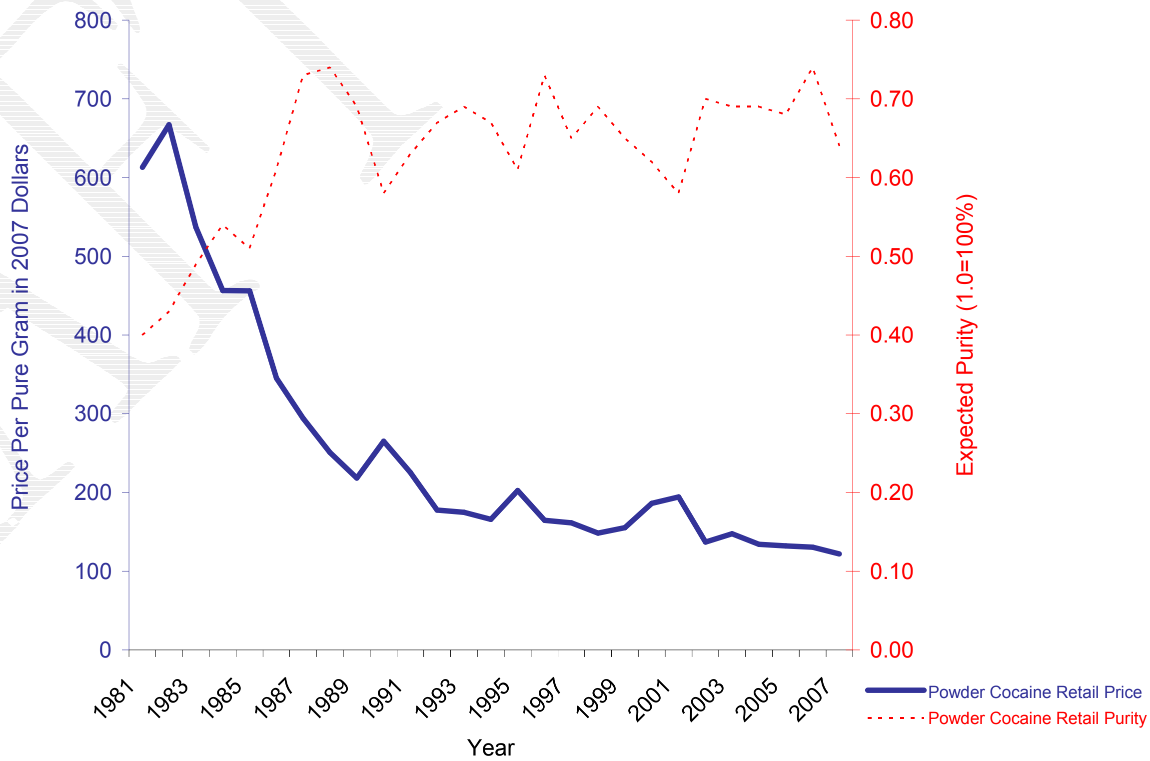
The IDA report also provides annual cocaine price and purity estimates for five major cities for which sufficient data are available: Atlanta, Chicago, New York, San Diego and Washington, DC. In each city, cocaine's price fell in 2007 and in each city the 2007 price level was lower than in 1999. The individual city trends do not differ much from the national trend.

As Figure 1 makes plain, the long-term trend of falling cocaine prices and high purity levels continued apace in recent years. Indeed, cocaine's annual average retail price has fallen each year from 2004 through

2007, the longest such stretch of year-on-year declining prices since 1991-1994. To be sure, the net decline in 1991-1994 (37.4 percent) was considerably steeper than the drop from 2004-2007 (17.5 percent).

The inability to drive prices higher over this period squares with recent assessments that Colombian and overall Andean cocaine production has grown. An October 2008 report, prepared by the Government Accountability Office (GAO) at the request of Delaware's Joseph Biden (then Senator, now Vice President), found that despite $6 billion in support of Plan Colombia since the year 2000, coca cultivation and cocaine production in Colombia in 2006 had actually increased.[16] According to the United Nations Office on Drugs and Crime (UNODC), potential worldwide cocaine production in 2007 was 13 percent higher than in 2000.[17]

FIGURE 1 and TABLE 1: Annual average estimates of retail cocaine price and purity, 1981-2007



Year	Price	Year	Price	Year	Price
1981	$613	1990	$265	1999	$155
1982	$667	1991	$226	2000	$186
1983	$537	1992	$178	2001	$194
1984	$457	1993	$175	2002	$137
1985	$456	1994	$166	2003	$148
1986	$345	1995	$202	2004	$134
1987	$294	1996	$165	2005	$132
1988	$251	1997	$161	2006	$131
1989	$218	1998	$149	2007	$122

Source: ONDCP, 2009 *National Drug Control Strategy*, Data Supplement, Table 50

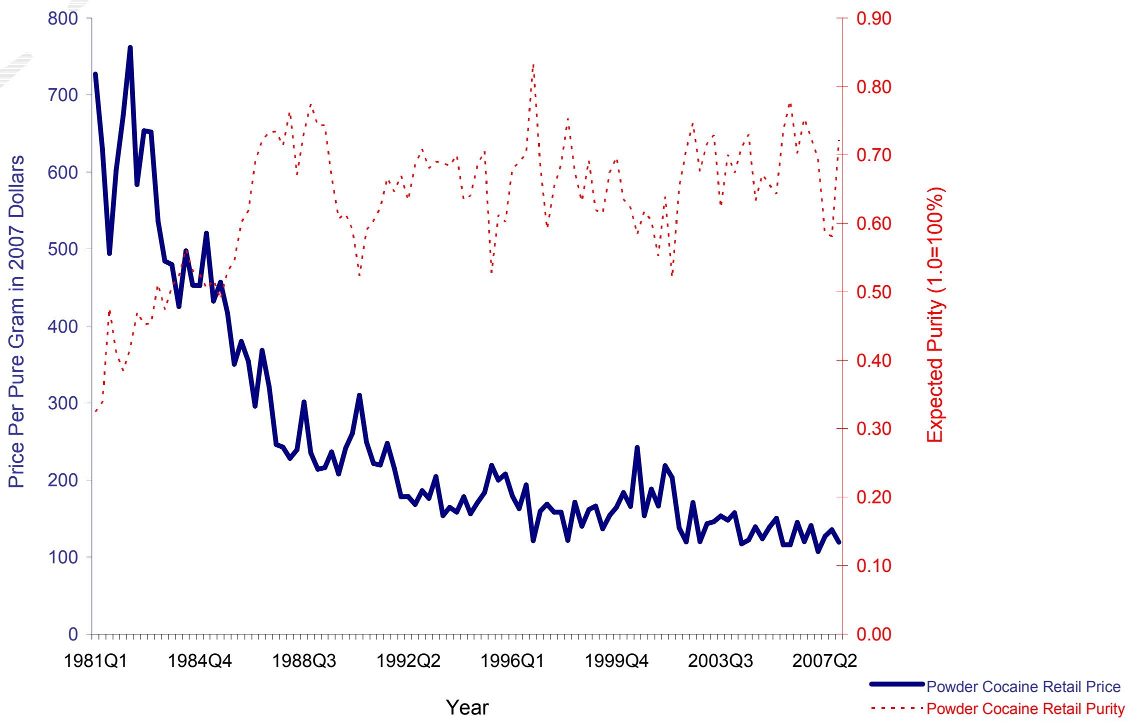
Price trends are of course a function of both supply and demand. While robust supply is evidently a large part of the equation, it may be that cocaine's historically low U.S. retail prices are also due to slackening demand. Indeed, total U.S. cocaine consumption appears to have peaked in the late 1980s, declined modestly through the 1990s, and then plateaued. But there is no indication that consumption has been going down in recent years. Household and school-based surveys, for example, show that the percentage of Americans who use cocaine has remained basically stable since 2000.[18] These surveys, however, say little about the numbers or consumption patterns of the chronic, heavy users who account for the bulk of cocaine consumption. The most recent published estimates of the number of chronic cocaine users and of total U.S. cocaine consumption were released by ONDCP in 2001; the estimates extended through 1999, with projections for the year 2000.[19] In 2005, ONDCP received a study by Abt Associates that updated the cocaine consumption estimates through 2003. But the Bush administration's ONDCP never released the study.

Quarterly Price and Purity Findings

The continued decline in the annual price of cocaine revealed by the new IDA study belies the notion that supply-side breakthroughs created unprecedented cocaine scarcities. Walters' assertions can be examined further in light of the IDA report's findings presented on a quarterly basis (see Figure 2).

In November 2005, Walters announced that Plan Colombia had succeeded "for the first time" in driving up U.S. cocaine prices and driving down purity, and displayed a chart depicting a 19 percent increase in cocaine's retail price from February through September 2005, and a 15 percent decrease in purity over the same period.[20]

FIGURE 2: Quarterly estimates of retail cocaine price and purity, 1981-2007



Source: Institute for Defense Analyses (IDA), July 2008

- According to the newly-released estimates, cocaine's retail price did rise by 21.5 percent between the 1st quarter of 2005 (January-March) and the 3rd quarter of 2005 (July-September), and purity fell from 67 to 64 percent. But in the 4th quarter of 2005 (October-December), cocaine's price plummeted by nearly 23 percent, dropping to a new low, while purity rebounded to nearly 74 percent. In other words, by the time Walters was touting the price increase that occurred earlier in 2005, it was already in process of being fully reversed. And even at the height of the 2005 increase (in the 3rd quarter), cocaine's retail price was lower than the annual average price in 1999, before Plan Colombia's launch.

- The new estimates also make clear that the mid-2005 cocaine price spike was hardly unprecedented. The IDA study reveals that during the 20-year period from 1988-2007, there were 14 instances of quarterly-basis retail price increases greater than 20 percent, including six single-quarter increases, four increases over two consecutive quarters (as in 2005 Q2 and Q3), and four increases over three consecutive quarters. The mid-2005 increase was the smallest in magnitude of the 14 (see Table 2; the mid-2005 increase is highlighted in yellow). Moreover, as proved to be the case in 2005, the data make clear that every single instance in which prices increased has been followed by resumed price declines.

- Nor was the plunge to a record-low price in the 4th quarter 2005 altogether new; similar plunges coming right on the heels of price increases occurred at the end of 1988 (a 29 percent decline over two quarters) and in early 2002 (a 45 percent decline over three quarters). Finally, despite the mid-year spike in 2005, cocaine's annual average price was lower in 2005 than it was in 2004, and the annual average price fell again in 2006 and 2007.

TABLE 2: Retail cocaine price increases greater than 20 percent, quarterly basis, ranked from largest to smallest, 1988-2007

Period	Consecutive Quarters	Percentage Increase
1990 Q1 – Q3	3	49.2
2000 Q3	1	45.9
2002 Q3	1	43.0
1998 Q2	1	40.9
1994 Q4 – 1995 Q2	3	40.3
1997 Q1 – Q2	2	39.1
1999 Q3 – 2000 Q1	3	34.3
1988 Q2 – Q3	2	32.0
2001 Q3	1	31.7
2003 Q1 – Q3	3	27.5
2007 Q2 – Q3	2	26.4
2006 Q2	1	25.2
2001 Q1	1	22.6
2005 Q2 – Q3	2	21.5

Source: Institute for Defense Analyses (IDA), July 2008

In November 2007, Walters announced that the average U.S. retail price of cocaine had increased by 44 percent between January and September 2007, indicating scarcer cocaine supplies.[21] According to Walters, the 2007 price surge was "unprecedented" and showed that the country was in the midst of "not only the deepest [cocaine] shortage, but … the longest we've ever seen."[22] He made the announcement in Bogotá, Colombia, where he told reporters that "we've never had disruptions of this magnitude before."[23]

- The new IDA estimates show that, similar to what occurred in 2005, cocaine's retail price rose by 26.4 percent between the 1st quarter and the 3rd quarter of 2007, while purity fell from 69 to 58 percent. Again, however, in the 4th quarter of 2007, cocaine's price fell nearly 12 percent, while purity rebounded to 72 percent. In 2007, moreover, the mid-year increase came immediately after the quarter with the single lowest price level on record (2007 Q1) – so that even the 26.4 percent increase left cocaine's price nearly 13 percent *below* the annual average price in 1999.

- In historical perspective, the mid-2007 price increase was not nearly as impressive as Walters had claimed. As Table 2 shows (mid-2007 increase highlighted), in percentage terms there have been ten larger price increases since 1988, including increases that occurred as recently as 2001 and 2003. In any case, the subsequent decline in the last quarter of 2007 left cocaine's quarterly price at near its historic low. Indeed, of the ten lowest quarterly price levels on record, eight occurred from 2002-2007, including two in 2006 and two in 2007.

Shifting the Burden of Proof

What to make of the evidence of the nearly relentless fall in cocaine prices? On the bright side, less expensive cocaine does not appear to have stimulated a significant increase in the prevalence of U.S. cocaine use or even an increase in total cocaine consumption. But this stability in the U.S. cocaine market comes *despite the fact that cocaine has become more affordable*, not because it has become more expensive; in 2007, retail cocaine cost less than half what it cost in 1988. The new price and purity data confirm what had already become quite clear: despite years of pursuing aggressive and costly policies aimed at curtailing cocaine availability, supply has remained quite robust.[24] Whatever factors have accounted for the decline and eventual stabilization of the prevalence of cocaine use in the United States, scare supplies and rising prices are not among them.

This does not mean that episodes of market disruption will not recur; on the contrary, the price and purity time-series data shows that fluctuations are quite common, and frequently of greater magnitude than the increases that were trumpeted by the Bush administration. Indeed, it would be surprising if the current confluence of events – stepped-up enforcement and interdiction by Mexican authorities, disputes within and between Mexican drug trafficking organizations, increased shipment of cocaine to European markets, and increased cocaine distribution within transit countries – did *not* lead to disruptions and measurable price spikes.

The historical record strongly suggests, however, that such disruptions will prove temporary. Expectations for what can be accomplished through supply-side drug control strategies should be brought into line with this sobering reality. At huge expense, we have pursued a set of supply-control policies that have never achieved their explicit goals even as they have generated tremendous harm. This has been true of both the incarceration-led approach that has defined U.S. drug policy at home and the forced crop eradication campaigns that have been the hallmark of our strategy abroad, especially in the Andes.[25] If we are to have a productive debate on setting new drug policy priorities, the scope of the failure of supply-side measures must be acknowledged. Otherwise, we risk repeating the same approaches that have already proven so ineffective and wasteful.

This lesson is especially crucial in light of the situation in Mexico today. Mexico is struggling to contain severe drug-related violence, and the United States – whose money and weapons stoke the power of Mexican criminal organizations – is undoubtedly obligated to help Mexico stem the horrific violence.[26] But it is important to realize that success in reducing the violence that is wracking Mexico will not necessarily imply or entail a sustained reduction in the flow of illicit drugs into the United States. Mexican government officials appear to take this view. According to Mexico's Attorney General, Eduardo Medina-Mora, "What is at stake is the ability of Mexico to keep peace and tranquility for its citizens. That is why our objective is not ending drug trafficking. It is to remove power from these groups and remove their ability to seize and to kidnap our right to live in peace."[27]

The vast scale of the U.S.-Mexican commercial relationship presents drug traffickers with nearly boundless opportunities to move their product into the United States, where cocaine has long since become a market commodity, with prices that are high compared to legal drugs like alcohol and tobacco, but low enough to retain a lucrative mass market. Moreover, to the extent that Mexico may succeed in making itself a less hospitable place for illicit drug trafficking, operations can shift elsewhere. The rise of Mexican cocaine trafficking was itself a consequence of the success of U.S. interdiction efforts in the Caribbean in the late 1980s and early 1990s, which led Colombian trafficking groups to seek access to the U.S. market through Mexico.[28] Mexico's location and close ties to the United States provide clear advantages for smugglers, but successfully disrupting trafficking operations within Mexico would have the predictable consequence of shifting activities to other areas within Mexico and to other countries in Central America and the Caribbean.

The burden of proof should rest with those who would do more of the same and expect a different result. Defenders of the status quo policies will likely continue to paint "light at the end of the tunnel" scenarios, dismissing the price and purity estimates described here as "old data," and predicting supply-side breakthroughs that will shrink the U.S. drug market. But such views should be considered in light of the actual historical evidence, not wishful thinking.

This means that claims of fresh price increases should not be considered in isolation, but be placed explicitly in historical perspective (i.e., as part of the time-series stretching back to 1981). For example, the *New York Times* reported recently that, according to the Drug Enforcement Administration (DEA), "Mexico's battle against drugs is clamping down on supplies, citing the doubling of cocaine prices in the United States over the past two years."[29] But the new DEA claim invites skepticism for the same reasons as ONDCP's claims in 2005 and 2007.[30] Unlike the comprehensive RAND and IDA studies, the DEA has not divulged details of its methods (other than the fact that the estimates are also generated from the STRIDE database). The DEA estimates cover only 3½ years, an abbreviated period that tends to accentuate fluctuations while preventing consideration of the longer historical trends. Also, rather than distinguish among market levels (e.g., retail and wholesale), the DEA appears to present price and purity levels for the U.S. cocaine market as a whole, so the findings cannot be compared directly to the RAND and IDA time-series.

These differences are problematic for the credibility of the DEA estimates, because the DEA findings are often at odds with the new IDA findings in a key respect – the direction of the price change. Where IDA found cocaine retail prices to be declining from 2006 to 2007 (*falling* by 6.6 percent) the DEA figures indicate that cocaine's average price in 2007 was 26 percent *higher* than in 2006 (these are the only two full calendar years for which the IDA and DEA estimates overlap entirely). Moreover, for three of the ten quarters where the IDA and DEA quarterly estimates overlap, the direction of the price change differs. For example, whereas IDA found a nearly 24 percent price *decline* from 2006 Q4 to 2007 Q1, the DEA shows a nearly 10 percent *increase* between these two quarters. These obvious discrepancies in the direction of change (not just the numerical levels) suggest that the DEA findings should be regarded with caution, especially since the more comprehensive and transparent RAND and IDA analyses offer such grounds for skepticism about the likelihood of sustained market disruptions. Again, the point is not that market disruptions do not occur. Disruptions have occurred rather frequently, and given the turbulence in Mexico today it would be surprising if the market was *not* being disrupted again. The point is that the best available evidence and the in the historical record suggests that such disruptions prove temporary.

Beyond Supply versus Demand: Embracing Harm Reduction

There is a strong case in favor of much more ambitious efforts to reduce the size of the illicit market through proven demand-side strategies such as treatment.[31] At his Senate nomination hearing to head ONDCP, Gil Kerlikowske signaled that "There will be a renewed focus on evidence-based approaches to reduce demand for drugs, through prevention as well as treatment."[32] This is of course to be welcomed. But even so, substantial declines in the size of illicit drug markets should not be expected any time soon. The debate over U.S. drug policy priorities will be more productive if this reality is absorbed as well.

Given demand for cocaine, there will be supply. With smarter policies, the size of the U.S. cocaine market can probably be reduced, but perhaps not dramatically so, and certainly not to the point of vanishing. The key to more effective policy, therefore, is to understand that drug-related problems cannot be eliminated, but can surely be managed far better than we have to date. This entails adopting a harm reduction approach that, broadly speaking, seeks to minimize the harms associated with illicit drug production, distribution and abuse, but also to minimize the harms generated by policies meant to control drugs.[33] Let the debate begin.

NOTES

1 Mary Beth Sheridan, "Clinton: U.S. Drug Policies Failed, Fueled Mexico's Drug War," *Washington Post*, 26 March 2009, at http://washingtonpost.com/wp-dyn/content/article/2009/03/25/AR2009032501034_pf.html
2 "Envoy Damns US Afghan Drug Effort," BBC News, 21 March 2009, at http://news.bbc.co.uk/2/hi/south_asia/7957237.stm
3 "Zogby/Inter-American Dialogue Survey: Public Views Clash with U.S. Policy on Cuba, Immigration, and Drugs," News Release, 2 October 2008, at http://www.zogby.com/templates/printnews.cfm?id=1568
4 Senator Webb introduced S. 714, a bill "to establish the National Criminal Justice Commission." *Congressional Record*, S3900-S3904, 26 March 2009.
5 Keith B. Richburg, "N.Y. Governor, Lawmakers Agree to Soften Drug Sentencing Laws," *Washington Post*, 28 March 2009, at http://washingtonpost.com/wp-dyn/content/article/2009/03/27/AR2009032702834_pf.html
6 Jonathan P. Caulkins and Peter Reuter, "Reorienting U.S. Drug Policy," *Issues in Science and Technology*, Fall 2006, at http://www.issues.org/23.1/caulkins.html
7 Testimony of the Honorable R. Gil Kerlikowske before the U.S. Senate Committee on the Judiciary, 1 April 2009, at http://judiciary.senate.gov/hearings/
8 The new price and purity estimates are available in two places on the ONDCP website: the annual estimates are presented in Table 50 of the data supplement to the 2009 *National Drug Control Strategy* at http://www.whitehousedrugpolicy.gov/publications/policy/ndcs09/ndcs09_data_supl/ds_drg_rltd_tbls.pdf; the quarterly estimates and methodological details are presented in *The Price and Purity of Illicit Drugs: 1981-2007*, 23 July 2008, prepared for ONDCP by the Institute for Defense Analyses (IDA), at http://www.whitehousedrugpolicy.gov/publications/price_purity/price_purity07.pdf
9 *The Price and Purity of Illicit Drugs: 1981 Through the Second Quarter of 2003*, November 2004, at http://whitehousedrugpolicy.gov/publications/price_purity/
10 Foreign Press Center Briefing with ONDCP Director John Walters – Topic: Progress Report on Anti-Drug Efforts in Colombia, 17 November 2005; and ONDCP Press Release: "White House Drug Czar, DEA Administrator Release New Data Showing Significant Disruptions in U.S. Cocaine and Methamphetamine Markets," 8 November 2007.
11 Washington Office on Latin America (WOLA), "Déjà Vu All Over Again? Precedents to an 'Unprecedented' Cocaine Price Spike," 14 November 2007, at http://www.wola.org/index.php?option=com_content&task=viewp&id=600&Itemid=8
12 Allison Klein and Clarence Williams, "In D.C., Price of Cocaine Soars as Supply Declines," *Washington Post*, 9 November 2007, at http://washingtonpost.com/wp-dyn/content/article/2007/11/08/AR2007110802147_pf.html
13 John Burnett, "Drug Czar Blasted for Lack of Leadership," All Things Considered, National Public Radio (NPR), 6 April 2007, at http://www.npr.org/templates/story/story.php?storyId=9413890. The story includes an interview with Iowa Republican Senator Charles Grassley, Co-Chair of the Senate Narcotics Control Caucus, who said of ONDCP: "When it comes

to statistics, I think it's fair to say they cook the books. They use whatever statistics fit their public relations program." Also see John Burnett, "'Cocaine Shortage' May Be a Myth," Day to Day, NPR, 26 December 2007, at http://www.npr.org/templates/story/story.php?storyId=17618586

[14] Michael Dobbs, "Is There a 'Cocaine Shortage'?" *Washington Post*, 21 November 2007, at http://blog.washingtonpost.com/fact-checker/2007/11/is_there_a_cocaine_shortage_1.html

[15] *The Price and Purity of Illicit Drugs: 1981-2007*, 23 July 2008, prepared for ONDCP by the Institute for Defense Analyses (IDA), at http://www.whitehousedrugpolicy.gov/publications/price_purity/price_purity07.pdf. As the report's Executive Summary states: "As directed by ONDCP, the estimation methodology for generating the price and purity time series … is essentially identical to the formal econometric modeling approach used in the 2004 study… Although the new results are not always numerically identical to past counterparts [e.g., the 2004 RAND report] … they generally are very similar and past major trends and features were reproduced."

[16] U.S. Government Accountability Office, *Plan Colombia: Drug Reduction Goals Were Not Fully Met, but Security Has Improved; U.S. Agencies Need More Detailed Plans for Reducing Assistance* (GAO-09-71), October 2008, at http://www.gao.gov/new.items/d0971.pdf

[17] United Nations Office on Drugs and Crime (UNODC), *2008 World Drug Report*, at http://www.unodc.org/documents/wdr/WDR_2008/WDR_2008_eng_web.pdf

[18] The National Survey on Drug Use and Health (NSDUH) found that 0.8 percent of Americans aged 12 or older self-reported using cocaine in the past month during 2007, consistent with the findings on past-month cocaine use since 2002, which ranged from 0.8 to 1.0 percent; see Substance Abuse and Mental Health Services Administration (SAMHSA), *Results from the 2007 National Survey on Drug Use and Health: National Findings*, at http://www.oas.samhsa.gov/nsduh/2k7nsduh/2k7Results.pdf. According to the University of Michigan's Monitoring the Future study, in 2008 nearly 39 percent of 12th graders reported cocaine powder to be "fairly easy" or "very easy" to get, consistent with the findings since 2000, which ranged from 37.4 to 44.6 percent; see http://www.monitoringthefuture.org/data/data.html

[19] *What America's Users Spend On Illegal Drugs: 1988-200*, prepared by Abt Associates for ONDCP, December 2001, at http://www.whitehousedrugpolicy.gov/publications/pdf/american_users_spend_2002.pdf

[20] Foreign Press Center Briefing with ONDCP Director John Walters – Topic: Progress Report on Anti-Drug Efforts in Colombia, 17 November 2005.

[21] ONDCP Press Release: "White House Drug Czar, DEA Administrator Release New Data Showing Significant Disruptions in U.S. Cocaine and Methamphetamine Markets," 8 November 2007.

[22] Allison Klein and Clarence Williams, "In D.C., Price of Cocaine Soars as Supply Declines," *Washington Post*, 9 November 2007, at http://washingtonpost.com/wp-dyn/content/article/2007/11/08/AR2007110802147_pf.html

[23] Joshua Goodman (Associated Press), "US drug czar touts cocaine shortage, despite conflicting supply data," *International Herald Tribune*, 8 November 2007.

[24] For a discussion of some of the key factors that frustrate supply-side success, see "U.S. Drug Policy: At What Cost? Moving Beyond the Self-Defeating Supply-Control Fixation," Statement of John M .Walsh before the Joint Economic Committee of the U.S. Congress, 19 June 2008.

[25] Washington Office on Latin America (WOLA), *Chemical Reactions – Fumigation: Spreading Coca and Threatening Colombia's Ecological and Cultural Diversity*, February 2008.

[26] Ginger Thompson and Elizabeth Malkin, "Top U.S. Officials Meet With Mexicans to Quell Growing Drug-Related Border Violence, *New York Times*, 3 April 2009. According to U.S. Attorney General Eric H. Holder, "There's no doubt that the vast majority of weapons seized in Mexico come from the United States. This is a reality we have to face in the United States, and its one Mexicans have long had to confront."

[27] Ginger Thompson, "Mexican and U.S. Attorneys General Confer to Strengthen Cooperation on Drug Violence," *New York Times*, 4 April 2009.

[28] Phil Williams, "Drug Trafficking, Violence, and the State in Mexico," Strategic Studies Institute, U.S. Army War College, April 2009, at http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=913

[29] Marc Lacey, "In Drug War, Mexico Fights Cartel and Itself," *New York Times*, 30 March 2009. U.S. officials are indeed now claiming that supply disruptions in Mexico are causing U.S. prices to spike. *The New York Times* reported recently that the "Drug Enforcement Administration says Mexico's battle against drugs is clamping down on supplies, citing the doubling of cocaine prices in the United States over the past two years."

[30] U.S. Drug Enforcement Administration, News Release, "U.S. Cocaine Market Disrupted, Prices Continue 21-month Surge," 11 December 2008, at http://www.usdoj.gov/dea/pubs/pressrel/pr121108.html

[31] David Boyum and Peter Reuter, *An Analytic Assessment of U.S. Drug Policy* (Washington, DC: AEI Press, 2005).

[32] Testimony of the Honorable R. Gil Kerlikowske before the U.S. Senate Committee on the Judiciary, 1 April 2009, at http://judiciary.senate.gov/hearings/

[33] Peter Reuter, "Ten years after the United Nations General Assembly Special Session (UNGASS): Assessing drug problems, policies, and reform proposals," *Addiction*, Vol. 104, No. 4, April 2009, pp. 510-517.