The Effects of Coca Production on 21st Century Latin American Development

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Introduction:

The beginning of the 21st Century has seen a significant growth in the cocaine industry. Estimates by the United Nations Office on Drugs and Crime allocate more than $300bn US dollars to the illegal drug industry, a number that is growing larger each year (UNODC, 2019). While demand plays an important role in determining the size of this market, I find that analyzing the evolution of coca production in South America sheds light on the ineffectiveness of the War on Drugs focused on the supply of cocaine to dismantle drug trafficking. Illicit cocaine production has had negative effects on the economic development of 21st Century Colombia, Peru, and Bolivia, as internationally backed efforts to disintegrate the global drug industry through crop eradication and fumigation tactics have been in vain.

Literature Review:

Wainwright (2016) argues that drug cartels operate like Walmart because they buy wholesale cocaine from farmers. Therefore, they operate as a monopsony as they set the prices for a kilo of cocaine bought from farmers. This explains why crop eradication is not efficient: farmers in other places will continue to grow the crop if the cartel gives them higher profits than legal crops. Cartels are different from legal business because of the price markups that they have. A kilo of cocaine costs around: $385 in coca leaves to $800 as wholesale cocaine to $2200 for export to $14500 for import to the US to $19500 at a mid-level dealer to $78000 street price and finally $122000 accounting for purity. Attacking the industry at its source is the least effective way since it only impoverishes farmers. It is like expecting the price of an artwork to increase if the price of paint increases rather than an industry like chocolate bars when the price of cocoa beans increases. Likewise, Reid (2017) states that the price of cocaine is determined by risk rather than by the cost of production. Markups give huge profits to mafias that use the money to protect their industry by challenging the monopoly of force by the state and by corrupting local governments. Attacking coca production from the supply side only hurts poor farmers and has the unintended effect of spreading the industry by forcing cartels to expand production to different areas and extend their control over these regions.

From a more political perspective, Edwards (2012) looks at how the illegal drug trade affects the quality of institutions in Latin America, an important cornerstone of economic development in the region. US policy shifts from trafficking countries to source countries have been successful in reducing the power (political and economic) of drug lords in South America, but also pushed the industry into clandestine operations which have expanded thanks to the modernization of distribution methods. Production has increased, and the industry has moved closer to the US, where trafficking in Mexico has become the hub of the industry. A culture of crime and corruption impedes economic progress (less FDI and education/productivity) which results in a vicious cycle between the industry and Latin American economies.

Grandin (2010), who focuses on the effects on imperialism in Latin America (including the War on Drugs) thinks that the imposition of neoliberalism led to a drug crisis in Bolivia (alternative to mining industry). Financial liberalization made it easier to launder profit through the banking system. Pressure form the US to attack coca production at its source in the Andes had no profound effect on the larger scale trafficking industry. Taxes collected from coca trafficking in Colombia fund guerilla groups like FARC and paramilitary groups, both operating with almost full impunity. As the United States under George W. Bush (post 9/11) began to mix terrorism, guerillas, and drug traffickers into the same category, the efforts to tackle coca production have consisted mostly of crop eradication and fumigation tactics rather than poverty alleviation and agricultural substitution programs. US outsourcing of antinarcotic fumigation campaigns to private firms has resulted in little regulation and oversight of the toxicity of chemicals. Lastly, Gootenberg (2008) who looks at the history on Andean Cocaine since its indigenous origins, sheds light on the artificially created criminal underworld of the cocaine industry. In other words, foreign and local policy to destroy the industry has worked to create a global illicit cocaine culture which has had undesired effects such as lower drug prices, higher levels of drug abuse in consumer countries, and connections to human rights abuses and other cases of abhorrent violence. One can only hope that policy-makers understand the realities of inefficient supply-focused policies which have had secondary negative effects on poor South American farmers.

Empirical Analysis:

By running a linear regression between the moment of policy change by the U.S. Office of National Drug Control Policy (ONDCP) in 2012 and the price of cocaine, one can see whether the policy had a significant effect on the price and thus the industry. The year of the policy is important because it was a declared end by the United States on the traditional methods of the War on Drugs and a more indirect approach on the drug industry itself. Reactions to such a policy change can be speculative and market-oriented, which is why it makes sense to have a jump and interaction variable respectively. This is done by using 2012 as a dummy variable in the time series of drug prices within 2007-2017. The regression analysis shows that the policy only had significant effects on the retail prices of cocaine not the wholesale prices, as shown by higher p-values. Retail prices show significant correlation (low p-values): a weak positive trend for retail prices in the period, a big positive jump during the time of policy implementation

(2012) and a strong negative trend in retail prices thereafter, working against the objectives of the policy itself. This means that the jump might be speculative price shocks as a result of expectations of a more effective policy, but the market reactions which have more time lag resulted in a trend in the opposite direction.

Table 1 shows these results clearly by having the first column of data correspond to Figure 1 and the second column to Figure 2. Wholesale prices had no significant trends in the period analyzed, which implies that they are steadily controlled by cartels, fulfilling the monopsony observations of Wainwright. The ONDCP policy in 2012 which was said to be "different from the War on Drugs", did not seem to impress domestic coca markets in South America. There was no significant jump, so cartels were not compelled to change wholesale prices at which the buy coca from farmers. In other words, cartels did not expect a major shift in their industry as a result of the policy, which reflects a general attitude of distrust for the effectiveness of U.S. foreign drug policy. The policy also stays away from legalization and decimalization, which is what most authors in the secondary literature argue to be the best avenue for defeating the industry from within through innovative de jure regulation.

In the second column of the regression table one can see that all variables aside from the constant are significant. The Year variable has a mildly significant positive trend in the period analyzed. This just means that throughout 2007-2017, retails prices have been steadily increasing, though not by an extremely steep gradient. On the other hand, the Policy variable has a significant coefficient, which implies a large jump at the time of policy implementation. This could mean that dealers in the U.S. speculated the policy to make their illicit business unprofitable, so they sold at higher prices around the time the policy was announced to accumulate capital and find solutions to the market shocks that might occur. The Interaction coefficient is also significant, though it was a negative trend after 2012. In other words, drug prices actually decreased after the policy was enacted, which is the exact opposite of what the government wanted since they hoped that higher prices would decrease demand and this consumption. The R-squared is also higher for Retail than for Wholesale, though not by a lot.

Conclusion:

The political and social impact of coca production on the Andean countries of Colombia, Peru, and Bolivia (in that order) is unavoidable. Supply-side policies only changed prices charged by dealers at the consumption levels, having little to no effect on input prices at earlier stages of the supply chain. During the period analyzed, these economies saw positive economic growth until a period of negative growth in 2014-2016 and a slow recovery after (except Bolivia which had slow positive growth in the period analyzed). If one gives a two-year lag to the economic effects of policy change by the ONDCP, it is likely that the ambiguity and lack of focus of the new policy only worked to strengthen drug cartels who were given leeway to search for higher profits and deteriorate economic growth in the countries analyzed. One could also argue that the peace process in Colombia in 2016, a political movement that disarmed the FARC guerilla, helped dismantle one of the largest cartel organizations in South America, which helped the countries' economies recover. It is thus clear that current policies aimed at reducing supply through eradication and sometimes fumigation, supported by local military and U.S. foreign policy, are not effective measures to control the cocaine industry. Rather, policy makers should look at cartels like profit-hungry industries that have complex global supply chains with plenty of protection measures. Regional efforts to decriminalize cocaine would offer the best solution to transfer the ownership of the industry from violent criminals to more controllable trafficking organizations.

References:

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Appendix

Table 1: Regression Analysis for Cocaine Prices

VARIABLES	(1) Wholesale	(2) Retail
Year	2,002	13,900*
	(1,841)	(7,328)
Policy	5.201e+06	5.678e+07***
	(3.700e+06)	(1.586e+07)
Interaction	-2,590	-28,214***
	(1,841)	(7,892)
Constant	-3.987e+06	-2.774e+07
	(3.699e+06)	(1.472e+07)
Observations	11	11
R-squared	0.646	0.716

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 1: Wholesale Prices

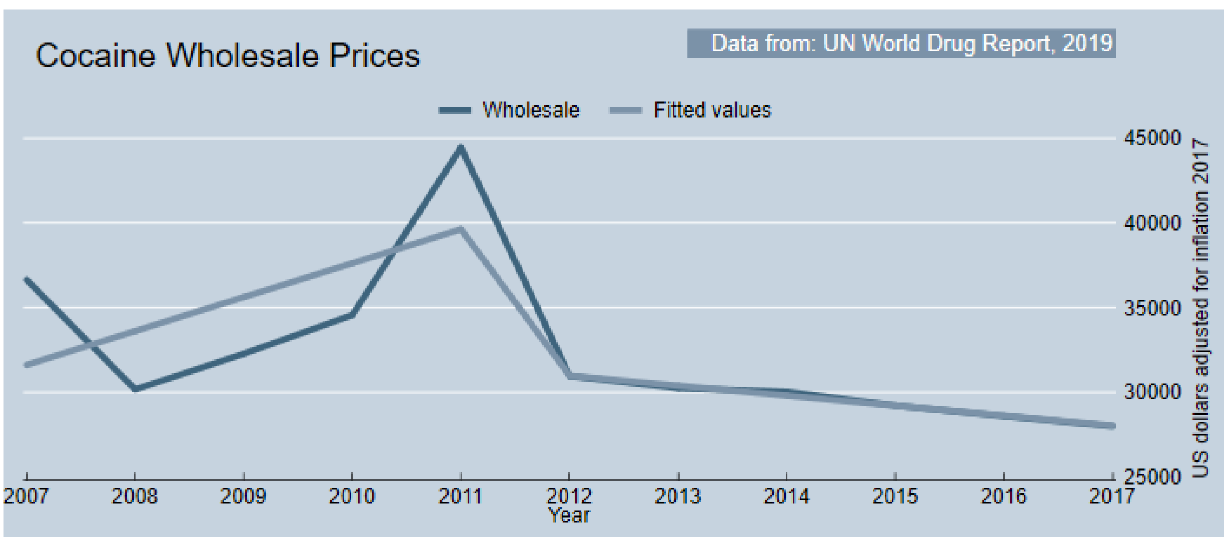

Figure 2: Retail Prices