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Illicit drug markets and economic irregularities

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Abstract

Markets for illicit drugs present an interesting case study for economics, combining non-standard characteristics such as addiction and product illegality. One response has been to argue the generality of economic principles by suggesting that they apply even in the extreme case of markets for addictive substances, e.g., by showing that demand for illicit goods is responsive to price [1] [Reframing health behavior change with behavioral economics. Hillsdale, NJ:Lawrence Earlbaum Associates; 2000. p. 89–111.] and even by modeling addiction as rational [2] [J Political Econ 1988;96:675–700]. This paper sketches examples of an alternative reaction, focusing on idiosyncrasies of drug markets that might plausibly create counter-intuitive effects, including supply curves that slope downward because of enforcement swamping and/or a good serving as the only available store of wealth for its producer, demand reduction programs that increase demand, and consumption by "jugglers" possibly increasing rather than decreasing as prices rise. This analysis yields non-obvious policy recommendations; for example, source country control programs should concentrate on growing regions with a healthy banking sector.

Keywords: Drug policy; Illicit markets; Market models; Industrial organization

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1. Introduction

Illicit drugs are produced, distributed, and retailed through markets, but those markets can differ in important respects from conventional markets. A literature has emerged describing various oddities of drug markets. Motivated by the observation that prices have declined despite very substantial increases in enforcement stringency (and in some cases to provide arguments for the legalization debate), an important subset of this literature is models suggesting that enforcement can stimulate rather than suppress drug supply and/or drug-related crime and violence [3–12].

This paper sketches four other oddities that appear plausible, although data presently available do not allow for model validation. It is not clear whether they are important drivers of overall drug market behavior. Nevertheless, they illustrate the richness of possible behaviors of markets for illicit drugs and the value of being open to models built up from special properties of those markets, rather than merely importing standard analysis and conclusions. An implication is that industrial organization economists may find drug markets to be an intrinsically interesting domain.

To clarify, by oddity we mean behavior contrary to that predicted by application of the standard competitive model to markets for illegal drugs, which have become common enough to be featured in introductory economics texts. The conventional story is a comparative static analysis of a market with an upward sloping supply curve and a downward sloping demand curve. Tougher enforcement against sellers is depicted as restricting supply. The supply curve shifts up and to the left, increasing the market price and reducing the quantity of drugs sold in the market. Demand-control interventions (prevention and treatment) are described as shifting the demand curve back, leading to lower prices and quantities sold. The magnitude of the various changes is acknowledged to depend on the elasticity of demand or supply, but their sign or direction is not questioned except that the extreme case of perfectly inelastic demand is sometimes considered on the ground that drugs are ''addictive''. This simple, conventional analytic framework is found not only in textbooks, but also in more august publications such as those of the National Research Council [13].

There are some virtues of even this mechanical application of elementary economic theory. Not so many years ago interdiction was viewed in policy debates within a ''physical flow model'' that presumed seizing a kilogram reduced consumption by a kilogram. Relative to that baseline, even elementary market models are an improvement because they acknowledge dynamic market response and notions of equilibrium. Our central thesis, however, is that economic analysis of drug markets and drug control interventions should not be content with presuming that elementary market models apply in all cases. In some instances the structure of the conventional model may be incorrectly specified; in others parameter values may be so different from those expected that counter-intuitive results prevail.

Before proceeding, we mention four important characteristics of contemporary US cocaine and heroin markets that are not universally appreciated. For a full discussion, see [14]. First, sellers face high risks of arrest and imprisonment, as well as seizure of assets and drugs. They also face substantial risk of injury or death as a result of actions by other participants. For example, Reuter et al. [15] estimated that in 1988 a Washington, DC retail dealer had a one in