THE OPIOIDS OF THE MASSES

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Abstract

The United States government has engaged in a "war on drugs" for decades, but it has largely failed to achieve its stated goal of eliminating drug abuse. Instead, it has caused a variety of unintended consequences, such as the increasing potency of illicit drugs. We examine how legal prohibitions on opioid production and distribution increase the potency of illicit opiates through the mechanisms of the Iron Law of Prohibition and the Alchian-Allen effect. As restrictions on opioid production and distribution are enforced more strictly, we predict that the potency of illicit opiates will rise. Relevant drug law enforcement and opioid usage data provide empirical support for our explanation of rising opioid potency. We then propose public policy solutions to the problem of the potency effect.

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I. Introduction

In 1914, Congress passed the Harrison Narcotics Tax Act, the first major piece of anti-drug legislation to be enacted on a federal level.[1] The passing of the Harrison Act is widely considered to be the beginning of the U.S. war on drugs.[2] Ever since the Harrison Act was passed, drug control has only gotten stricter. Starting in 1937, with the passing of the Marijuana Tax Act, marijuana has been effectively prohibited in the United States.[3] In 1970, through the enactment of the Controlled Substances Act (CSA), federal law required that "all drugs [be placed] into one of five schedules based on the Drug Enforcement Administration's (DEA) assessment of each drug's medical value relative to its potential for abuse."[4] Today, drug control measures still follow the 1970 Controlled Substances Act as well as subsequently passed laws. Restrictions on opioids have further increased since the passing of the CSA, ranging from shutting down overdose treatment clinics to restricting when medical pro-

1 Audrey Redford & Benjamin Powell, *Dynamics of Intervention in the War on Drugs: The Buildup to the Harrison Act of 1914*, 20 The Independent Rev. 509, 509 (2016).

2 Id.

3 Mark Thornton, The Economics of Prohibition 65 (2014).

4 Jeffrey Miron et al., *Overdosing on Regulation: How GovernmentCaused the Opioid Epidemic*, Cato Institute: Policy Analysis (February 14, 2019), https://www.cato.org/sites/cato.org/files/pubs/pdf/pa_864.pdf [https://perma.cc/HW8F-JHA7].

fessionals can prescribe opioids.[5]

Despite the severe restrictions placed on the selling, possessing, prescribing, and consuming of opioids, overdose and death rates have steadily increased.[6] Additionally, the number of overdoses and deaths related to higher-strength opioids such as fentanyl has been increasing.[7] What is causing this increase in the use of higher-potency opioids? We propose that the increase in the potency of illicit opioids is caused by prohibition and restrictions on opioid production.

Scholars of the economics of drug prohibition have provided the background for our research. Jeffery Miron and Jeffery Zwiebel, in "The Economic Case Against Drug Prohibition," explain the effects of prohibition using supply and demand analysis. Mark Thornton has thoroughly explained the unintended consequences of prohibition, including the impact of the Iron Law of Prohibition, in works such as *The Economics of Prohibition*. Our goal is to contribute to the literature on prohibition by using this previously developed theory to explain the rise in the potency of opioids.

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5 Miron et al., supra note 4, at 9.

6 Nat'l Ctr. for Drug Abuse Statistics, Opioid Epidemic: Addiction Statistics (2022), https://drugabusestatistics.org/opioid-epidemic/ [https://perma.cc/CC2W-4Y23].

7 Nat'l Ctr. for Drug Abuse Statistics, Fentanyl Abuse Statistics (2022), https://drugabusestatistics.org/fentanyl-abuse-statistics/ [https://perma.cc/5PC2-BBQN].

We aim to explain in this paper how prohibition increases the potency of illicit opioids. We begin by applying the theory of the Iron Law of Prohibition and the Alchian-Allen effect to explain the predicted outcomes of drug prohibition on potency. In the next section, we develop an empirical analysis of the relationship between drug enforcement and the use of higher-potency opioids, applying our theory to explain the correlation. We conclude by proposing various public policy measures to decrease the potency of illicit opioids.

II. Theory

The Controlled Substances Act of 1970 is the primary statute governing U.S. drug policy. The Act places certain drugs into five "schedules" with differing levels of restrictions. Unless otherwise authorized, the Act prohibits the manufacture, distribution, and possession of controlled substances.[8] Heroin and illicit opiates are placed in Schedule I, making them among the most highly restricted drugs, while prescription opiates are placed in Schedule II.[9] Criminal penalties include fines and prison sentences.[10]

Drug prohibition affects both the supply

8 Joanna R. Lampe, The Controlled Substances Act (CSA): A Legal Overview for the 117th Congress, Congressional Research Service 17-18 (February 5, 2021), https://crsreports.congress.gov/product/pdf/R/R459 48 [https://perma.cc/4XDA-LEQG].

9 Lampe, *supra* note 8, at 6.

10 Lampe, *supra* note 8, at 19.

and demand sides of the market. On the supply side, drug prohibition causes supply to decrease by increasing the costs of producing and distributing drugs. These costs include potential fines and prison sentences that would result from being caught, as well as the costs incurred due to avoiding detection.[11] According to Jeffrey A. Miron and Jeffrey Zwiebel, an additional cost comes from the inability to rely on the legal system to enforce contracts and resolve disputes.[12]

Demand similarly shifts to the left under drug prohibition. The risk of being caught and charged with possession, stronger uncertainty about product safety and quality, and the dangers involved in illegal markets all factor into the decrease in demand.[13] An additional factor may be a certain amount of "respect for the law" by would-be consumers, but this may be at least partially offset by the potential glamorization effects of prohibition.[14]

While both supply and demand for illicit drugs are likely to decrease under prohibition, supply is likely to decrease further relative to the decrease in demand; compared to consumers, pro-

11 Jeffrey A. Miron & Jeffrey Zwiebel, The Economic Case Against Drug Prohibition, 9 JOURNAL OF ECONOMIC PERSPECTIVES 175, 176 (1995).

12 Id.

13 Id.

14 Miron and Zwiebel, *supra* note 11, at 176-177.

ducers and distributors face harsher legal penalties and higher transaction costs, such as a higher risk of violence.[15] As Miron and Zwiebel say, "Unless demand is far more elastic than supply, therefore, prices will increase under prohibition."[16] The decrease in supply relative to demand that occurs as a result of drug prohibition raises the market price of illegal drugs, keeping profits high and potentially inviting new entry. Drug prohibition fails to eliminate the incentive for drug production and likely decreases the equilibrium quantity only to a relatively small extent.[17]

Another problem facing drug prohibition is the "Iron Law of Prohibition," a term coined by Richard Cowan, sometimes called the potency effect. According to Cowan, "The iron law of drug prohibition is that the more intense the law enforcement, the more potent the drugs will become."[18] Prohibition tends to increase the potency of illicit drugs by distorting supply. Due to the cost of avoiding detection, it becomes relatively more profitable to transport less bulky but more potent drugs; Cowan claims that "Heroin replaced opium for similar

15 Miron and Zwiebel, *supra* note 11, at 176.
16 Miron and Zwiebel, *supra* note 11, at 177.
17 Id.
18 Richard C. Cowan, How the Narcs Created Crack, 38 National Review 26, 26-31 (1986).

> reasons."[19] Because drug trafficking penalties are based on the weight of shipments, Mark Thornton argues that an effective "tax" is placed on weight. Suppliers will thus raise the value of the shipment to bear the cost of the tax.[20] One way that suppliers can raise the value of shipments is to increase the potency of the drugs, so potency is likely to increase under this form of prohibition.[21]

The Iron Law of Prohibition also works through the mechanism of the Alchian-Allen effect, sometimes called the Third Law of Demand, which states that "adding a common charge to the price of two substitute goods increases the relative consumption of the higher quality good, real income held constant."[22] Thornton explains how the Alchian-Allen effect functioned on the supply side in the case of alcohol prohibition:

> "…the underground economy swiftly moved from the production of beer to the production of the more potent form of alcohol, spirits. Prohibition made it more difficult to supply weaker, bulkier products, such as beer, than stronger, compact products, such as whiskey, because the largest cost of selling an illegal product is avoiding detection."[23]

19 Cowan, *supra* note 18, at 27.

20 Thornton, *supra* note 3, at 96.

21 Id.

22 Tyler Cowen & Alexander Tabarrok, Good Grapes and Bad Lobsters: Applying the Alchian and Allen Theorem, 33 Economic Inquiry 253, 253 (1995).

23 Mark Thornton, Alcohol Prohibition Was a Failure, Cato

Drug prohibition adds the fixed costs of avoiding detection to the costs of drug production, so producers may switch to producing more high-potency drugs, the "higher quality good."

Another factor that may contribute to increased potency is restrictions on the prescription of opioids. Opioids are only legally available in the U.S. through prescriptions, and doctors face legal restrictions on how much they can prescribe. When individuals' demand for opioids exceeds the amount which doctors can legally supply, they may switch to the black market instead, shifting the demand for illegal opioids, which are more likely to be of high potency, to the right.[24]

An economic analysis of drug prohibition shows that rather than eliminating the market for illegal drugs, prohibition instead tends to increase the potency of illegal drugs. The Iron Law of Prohibition and the Alchian-Allen effect make higher-potency drugs relatively more profitable to produce, and restrictions on legal opioid consumption drive consumers into black markets where high-potency drugs are more common.

Institute: Policy Analysis (July 17, 1991), https://www.cato.org/policy-analysis/alcohol-prohibition-was-failure [https://perma.cc/L8Y2-7PWT].

24 Miron et al., *supra* note 4, at 3.

III. Empirical Analysis

According to the theory laid out in the previous section, we should expect to see increasing amounts of higher-potency opioids being traded relative to lower-potency opioids because of prohibition and restrictions, and thus increased usage of higher-potency opioids relative to lower-potency opioids. *Ceteris paribus*, increased usage of deadlier higher-potency opioids should result in increased overdose deaths from opioids, particularly more potent synthetic opioids. As restrictions tighten and prohibition enforcement becomes more robust, we would expect the potency effect to worsen. Variations in opioid overdose deaths, especially from synthetic opioids, may be expected to reflect variations in restriction.

A case study of these expected effects can be conducted by examining the results of the changes in U.S. opioid policy and enforcement that took place around 2010. According to Jeffrey Miron, Greg Sollenberger, and Laura Nicolae, "Federal and state policies have also increasingly regulated prescription opioids, contributing to a decline in opioid prescribing starting in 2011."[25] According to the National Center for Drug Abuse Statistics, while opioid prescriptions fell by 39.29% from 2011-2019, opioid overdose deaths rose by 43.49% during the same period.[26] This suggests that consumption shifted from safer, legal opioids to

25 Miron et al., supra note 4, at 9.

26 Nat'l Ctr. for Drug Abuse Statistics, supra note 6.

more dangerous black-market opioids as consumers shifted to their available substitutes due to the reduced supply of prescription drugs induced by government restrictions.

Because of the Iron Law of Prohibition, we would expect increases in the enforcement of prohibition to be positively correlated with higher-potency opioid usage, which may be reflected in the rates of overdose deaths, especially from higher-potency synthetic opioids. A higher number of seizures indicates a higher degree of enforcement, so law enforcement seizures of synthetic opioid heroin and arrests for heroin trafficking can be used as a metric to measure the strength of enforcement. The annual amount of heroin seized by kilogram grew roughly 321% from 2008 to 2017, and according to a 2019 report by the Congressional Research Service, the increase could be driven by "enhanced U.S. law enforcement efforts to interdict and seize the contraband."[27] Annual heroin arrests by the Drug Enforcement Agency, meanwhile, grew roughly 145% from 2007 to 2017.[28] These data suggest that prohibition enforcement grew significantly over the period from 2007 to 2017. According to the National Center for Drug Abuse Statistics (NCDAS), heroin overdose death rates are increasing at an average annual rate of 55.7%, and the rate of overdose deaths involving synthetic opioids increased at an annual

27 Cong. Rsch. Serv., Heroin Trafficking in the United States (February 14, 2019), https://sgp.fas.org/crs/misc/R44 599.pdf [https://perma.cc/WAR6-47QN].

28 Cong. Rsch. Serv., *supra* note 27, at 5.

rate of 580% from 2012 through 2017, which would follow if producers substituted into producing higher-potency heroin and other synthetic opioids. [29]

Fentanyl is a synthetic opioid thirty times more potent than heroin.[30] As a result of stricter enforcement, we would also expect increased use of fentanyl relative to less potent opioids as a more potent substitute in production compared to heroin and other opioids. The NCDAS reports that "fentanyl OD rates are rising 2.5 times faster than heroin ODs," and "fentanyl ODs outpace prescription opioid ODs [by] 550.94%."[31] Additionally, the rates of fentanyl overdoses increased by 1,105% from 2012 to 2018.[32] These data reflect increased fentanyl use relative to other opioids, as our theory would predict, as a result of tougher restrictions and enforcement of prohibition.

Our theory predicts that as prohibition is expanded and more robustly enforced, the potency of illicit drugs produced and consumed will tend to increase. Empirical analysis of the available data reinforces the validity of our theory.

IV. Implications for Public Policy

29 Nat'l Ctr. for Drug Abuse Statistics, Drug Overdose Death Rates (2022) https://drugabusestatistics.org/drug-overdose-deaths/ [https://perma.cc/ZKY5-HST3].

30 Miron et al., *supra* note 4, at 4.

31 Nat'l Ctr. for Drug Abuse Statistics, *supra* note 7.

32 Nat'l Ctr. for Drug Abuse Statistics, *supra* note 7.

The anti-opioid crusades have had devastating effects on human life. Although policy has become increasingly strict on opium products, overdoses and deaths have continued to rise.[33] In short, to decrease the potency of opioids and the negative effects of the prevalence of high-potency opioids, current federal and state drug policy must be reversed. Policymakers have numerous options available to cause a decrease in the potency of illicit opioids, ranging from moving opioids to lower CSA schedules to allowing doctors to prescribe the quantity of opioids they see fit to full-on legalization.

A small step that would reduce the potency of opioids would be to change the CSA schedule that opioids fall under. Heroin is currently classified as a Schedule I narcotic while hydrocodone and opium are classified as Schedule II narcotics.[34] If any of these drugs or other opioids were placed into a lower CSA schedule, the supply of legal opioids would increase because more sellers would be allowed to enter the market and consumers would have easier access to safer, low-potency opioids. Currently, if one does not have a prescription for Schedule II narcotics, they will be unable to attain them legally. Schedule I narcotics, furthermore, are wholly illegal, so legal access to these

33 Miron et al, *supra* note 4, at 8.

34 United States Drug Enforcement Administration, *Controlled Substances – Alphabetical Order* (April 10, 2023), www.deadiversion.usdoj.gov/schedules/orangebook/c_cs_alpha.pdf [https://perma.cc/DNF4-B2EH].

drugs is impossible. If a consumer desires opioids enough, regardless of the drug's schedule placement, he will enter the underground market (the so-called "black market") to obtain them. In the underground market, not only will there be no access to legal remedies for dangerous products, but also, due to the Iron Law of Prohibition, many opioids will be laced with higher-potency opioids like fentanyl, thus leading to more overdoses and potential deaths.

A further policy step to reduce the potency of opioids would be to allow doctors to prescribe the quantity and strength of opioids they see fit for their patients. As aforementioned, federal and state governments have tightened regulation of opioid prescriptions, contributing to declines in prescriptions since 2011. According to Miron, Sollenberger, and Nicolae, "This may have exacerbated heroin mortality and the undertreatment of pain."[35] Opioids have legitimate medical purposes, mostly dealing with reducing chronic pain in patients. If patients are lacking in pain relief because doctors are not legally allowed to prescribe the quantity and strength of opioids that they believe is necessary to alleviate their patients' pain, patients may search for substitutes to satisfy their unfulfilled demand. In this case, consumers may find pain relief in higher-potency opioids, like heroin, rather than the legal lower-potency opioids, all because regulations have prevented legal prescription of low-potency opioids.

35 Miron et al., supra note 4, at 9.

Full legalization of the sale and consumption of opioids would lead to the dissolution of the underground market and a drastic decrease in consumers demanding higher-potency opioids. Consumer demand for opioids would be satisfied by going to their local pharmacy rather than going to an underground dealer. If the market for opioids were made fully legal, consumers would be able to go to the first best market where suppliers are not artificially induced to supply higher-potency opioids. With prohibition no longer being in effect, suppliers and transporters of opioids can supply opioids without fear of arrest and prosecution. This would lead to a decrease in the potency of opioids because the marginal cost of transporting opioids would be decreased, thereby allowing suppliers to move low-potency opioids without the risk of being arrested.

V. Conclusion

Ever since the beginning of the war on opioids in the mid-twentieth century, policy has become increasingly more restrictive. Despite the severe punishments for the possession, sale, and distribution of opioids, deaths and overdoses caused by high-potency opioids continue to rise. The potency of opioids increases due to the Alchian-Allen effect and the Iron Law of Prohibition, which raise the relative profitability of producing higher-potency opioids. The available data supports this theory as to why opioid potency increases. Simple policies that could reduce the potency of

opioids include lowering the CSA schedule that opioids fall under, allowing doctors to prescribe opioids to patients in need, and fully legalizing opioids.

The war on drugs is a fascinating subject with many facets to be explored. This paper specifically focused on the application of the Iron Law of Prohibition to the opioid market. The available data on this topic, such as the data used in this paper, is limited, so additional data gathering and collection would be helpful for future research. Furthermore, while this paper briefly discussed the history of prohibition, specifically as it relates to opioids, research on why the war on opioids continues from a public choice perspective would be a welcome addition to the literature on prohibition. Lastly, comparative research on similar states with loose regulations of opioid recovery treatment programs compared to states with strict regulations of opioid recovery treatment programs would help to understand how treatment programs affect death and overdose rates.