

Economics and Drugs

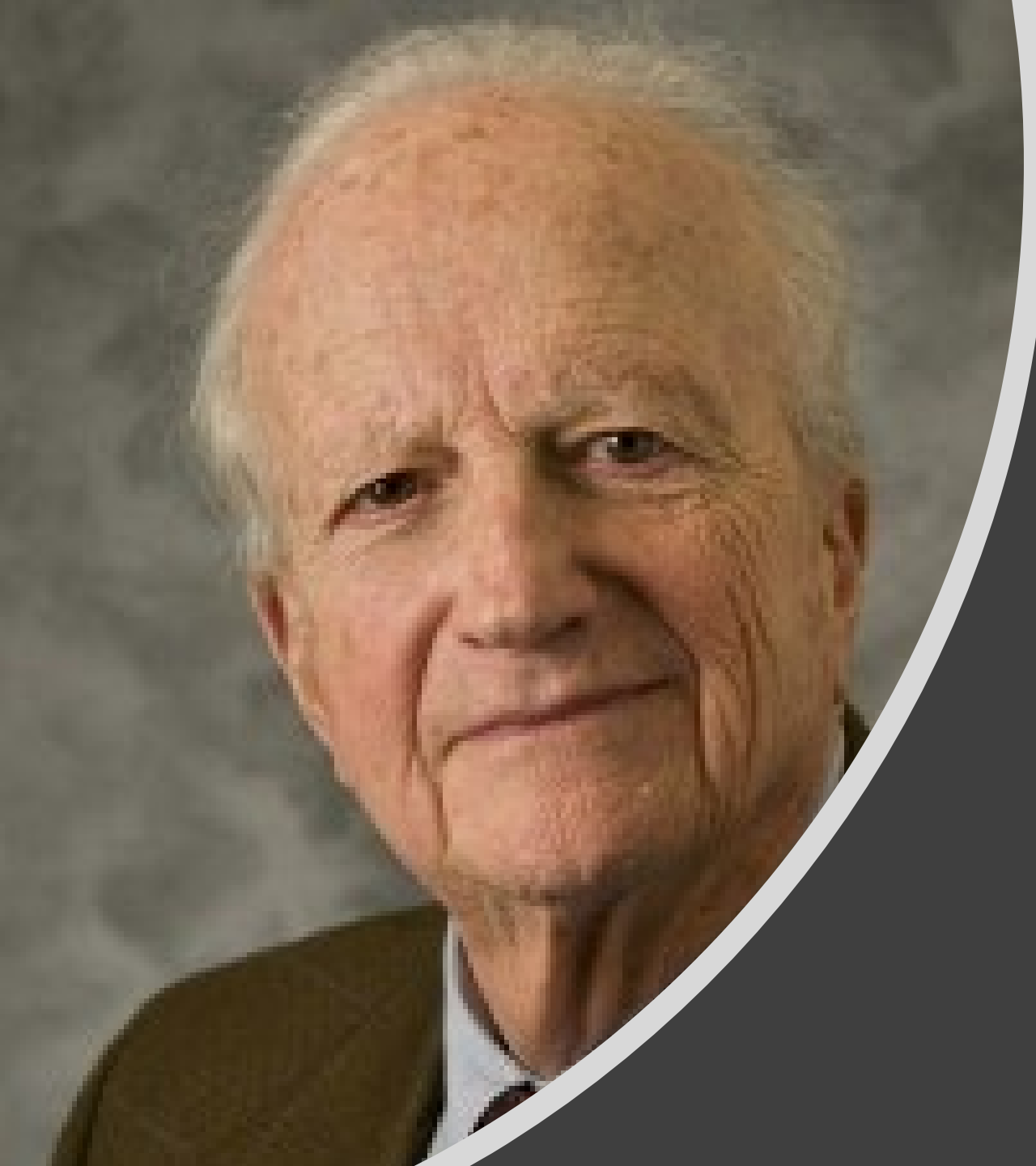
Class 10:

Pop Economics: Gary Becker, economics and drugs: Legalize, or not
legalize?



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Gary Becker

Source: <https://news.cornellcollege.edu>

Gary Becker

- Nobel Prize for having extended the domain of microeconomic analysis to a wide range of human behavior and interaction, including nonmarket behavior, 1992
- Research in traditionally social issues, such as racial discrimination, crime, family organization, and drug addiction
- Chicago political economy

Rational choice theory

- A framework for understanding and modelling social and economic behavior*
- Aggregate social behavior results from the behavior of individual actors, each of whom is making their individual decisions.*
- Individuals maximize their profit/self-interest

* Source: <https://en.wikipedia.org/>

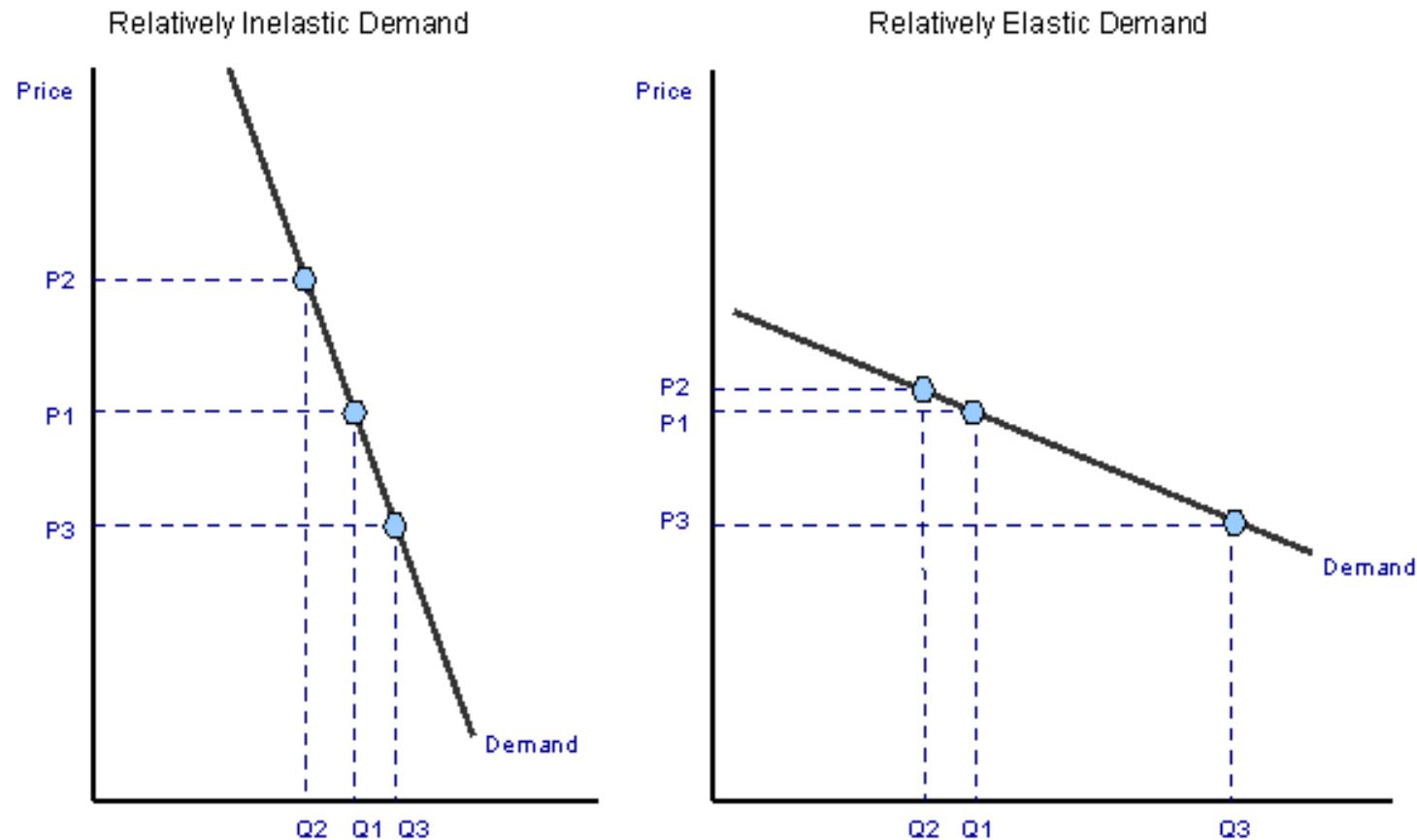
Rational
choice
theory
example



Source: Study.com

Price Elasticity – Law of Demand

- The higher price, the less drugs?



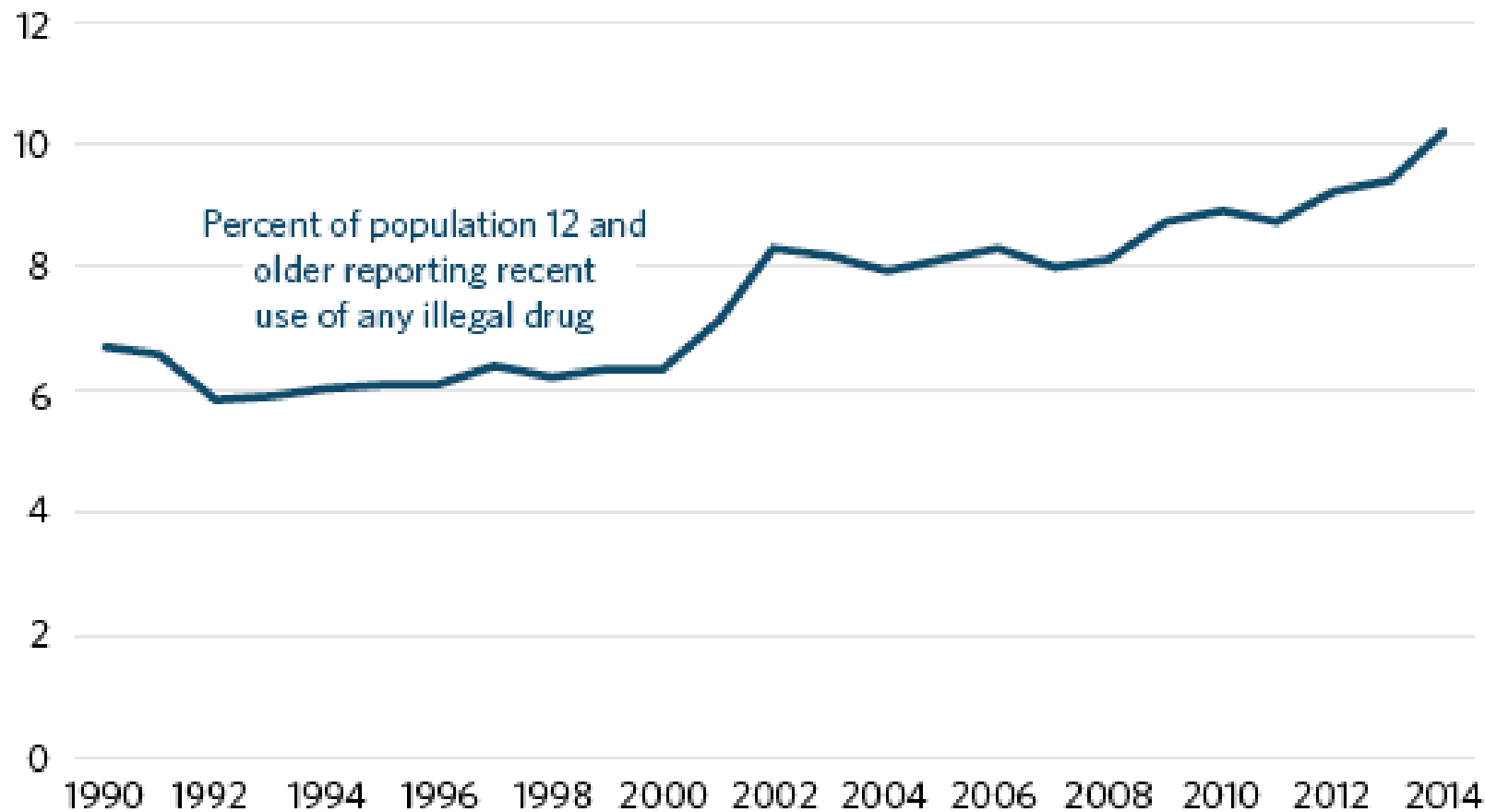
Economic Conditions and Illicit Drug Use

- Economic downturns lead to increases in substance use disorders involving hallucinogens and prescription pain relievers.
- Some drugs become more popular when the economy is thriving.
- LSD use is significantly procyclical: people use it more in good times.
- Ecstasy is countercyclical.

Figure 1

More Than 10% of Americans Reported Recent Use of an Illegal Drug

Self-reported drug use, 1990-2014



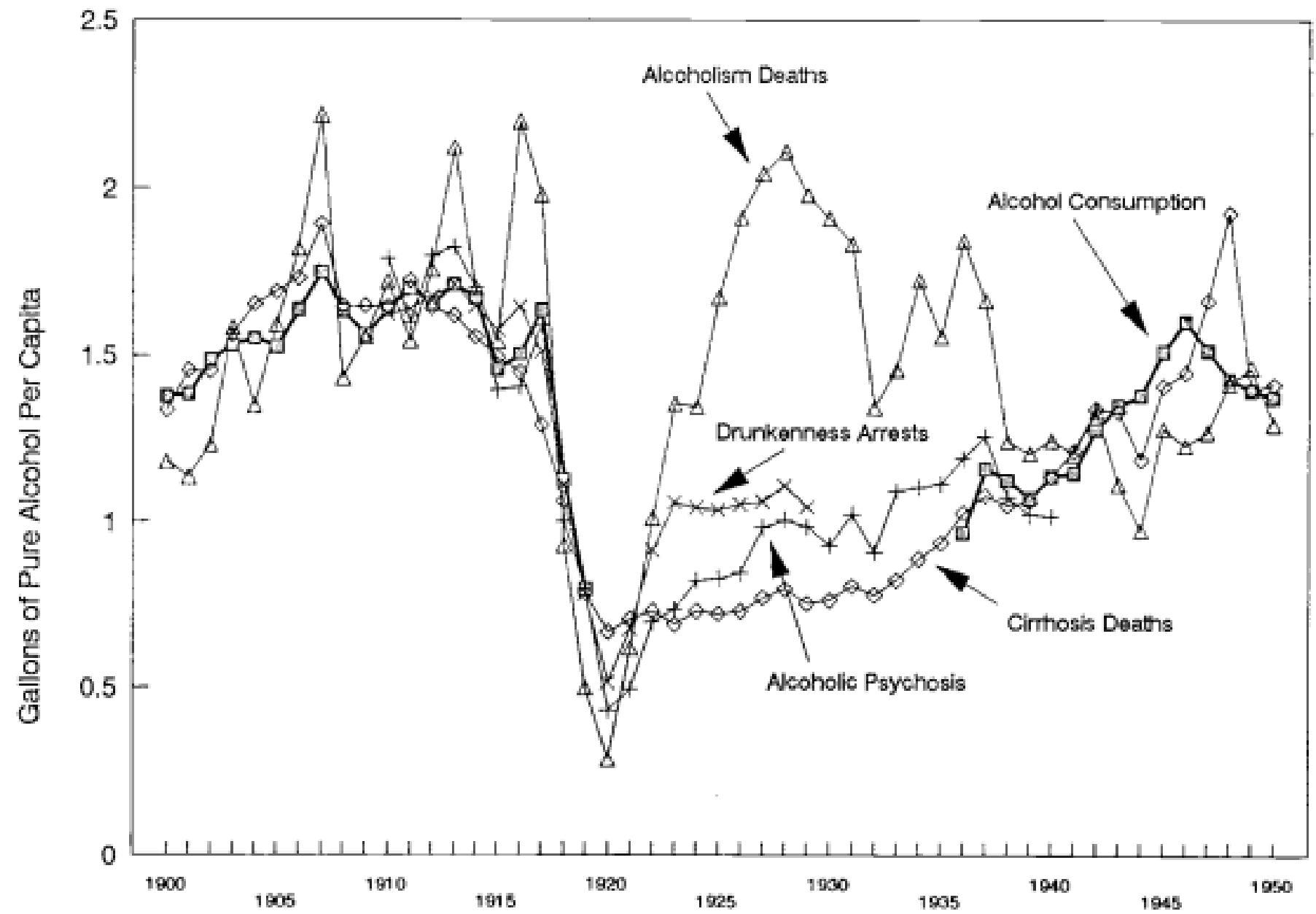
Source: Office of National Drug Control Policy, National Drug Control Strategy: Data Supplement 2016, Table 2, https://obamawhitehouse.archives.gov/sites/default/files/ondcp/policy-and-research/2016_ndcs_data_supplement_20170110.pdf

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Alcohol consumption during prohibition

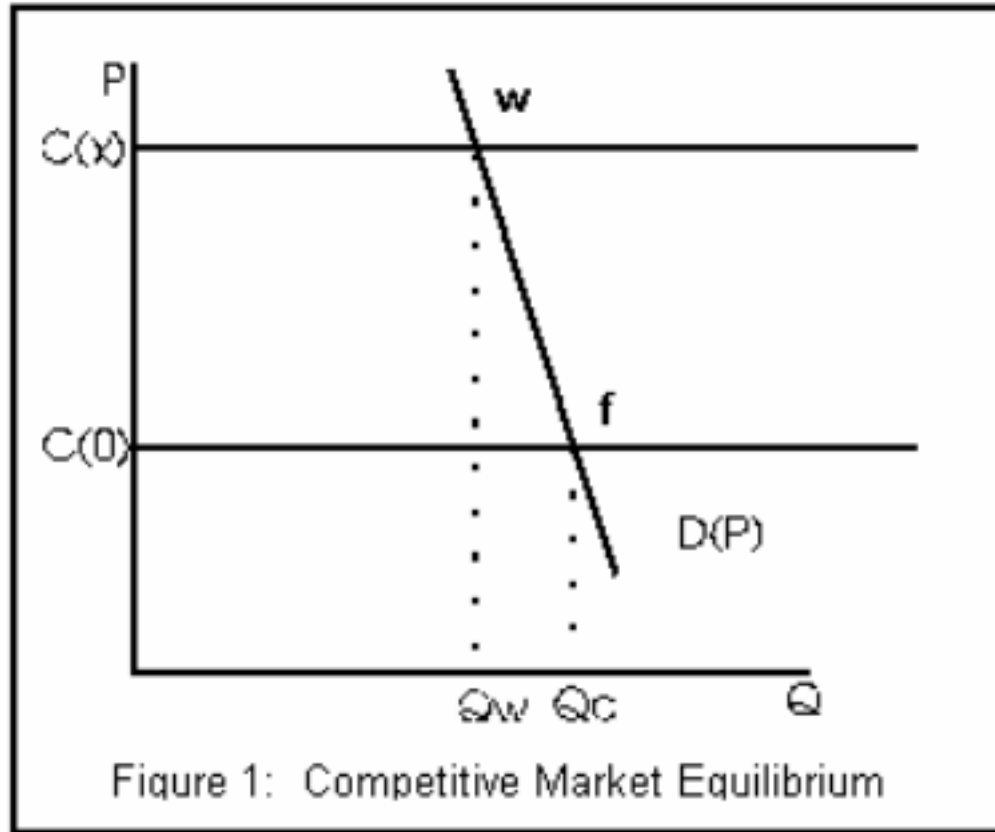
- Prohibition dated 1920 – 1933
- Alcohol consumption fell sharply at the beginning of Prohibition, to approximately 30 percent of its pre-Prohibition level.
- During the next several years, however, alcohol consumption increased sharply, to about 60-70 percent of its pre-prohibition level. The level of consumption was virtually the same immediately after Prohibition as during the latter part of Prohibition, although consumption increased to approximately its pre-Prohibition level during the subsequent decade.
- Source: Alcohol Consumption During Prohibition, Jeffrey A. Miron, Jeffrey Zwiebel, NBER Working Paper No. 3675 (Also Reprint No. r1563)
Issued in April 1991

Figure 1: Estimated Alcohol Consumption



Demand Curve for Drugs

Interdiction and prosecution efforts reduce consumption



War on drugs

$$P = c(E) + T$$

P..... Price of drugs

c(E) unit costs depending on E

E..... resources that governments devote to catching smugglers and drug suppliers

T costs imposed on users through reduced convenience and/or criminal punishments, **risk premium**

Without a war on drugs

$$P = c(0)$$

$$T=0$$

$$E=0$$

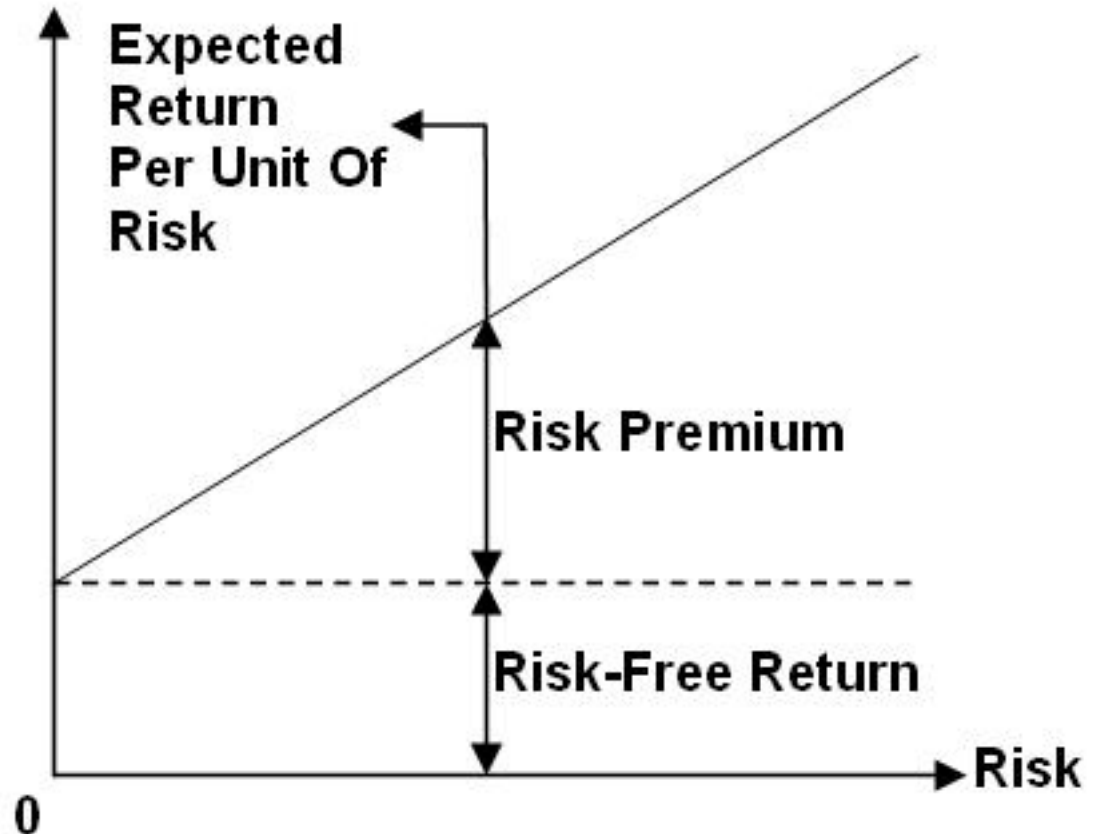
Source: The Economic Theory of Illegal Goods: The Case Of Drugs, Gary S. Becker, Kevin M. Murphy, Michael Grossman, December 2004

Risk premium

- minimum amount of money by which the expected return on a risky asset must exceed the known return on a risk-free asset in order to induce an individual to hold the risky asset rather than the risk-free asset.

Source: en.wikipedia.org,
www.investopedia.com

Expected Rate of Return



$$\text{Expected Return} = \text{Risk-Free Rate} + \text{Risk Premium}$$

Legalize and tax or keep it illegal?

- If the social value of a good is less than its private value, it would be most effective to allow the good to be legal, and impose the right monetary tax to account for the discrepancy between private and social values
- Drugs, prostitution, and gambling have frequently been illegal.

Source: The Economic Theory of Illegal Goods: The Case Of Drugs, Gary S. Becker, Kevin M. Murphy, Michael Grossman, December 2004

Price Discrimination

- Price of illegal goods tends to be lower to poorer persons.
- Easier Access: illegal drug production and distribution tends to be concentrated in the poorer neighborhoods.
- Poorer persons are more likely to be involved in the drug trafficking. The cost of imprisonment and similar punishments from selling drugs is less to individuals with lower opportunities in the legal sector.
- Reputational effects make conviction costlier for the wealthy.
- More than half of all persons imprisoned on drug charges are African-American.

Source: The Economic Theory of Illegal Goods: The Case Of Drugs, Gary S. Becker, Kevin M. Murphy, Michael Grossman, December 2004

Different impacts on the consumption of middle class and poorer persons

- When a good was illegal and when it was legal and taxed, the consumption of richer and poorer consumers would be affected differently.
- Suppose a monetary tax raises the price of a good by ΔP to all consumers, and that appropriate enforcement policies prevented a black market in the good. This price increase will tend to have different income and substitution effects to members of different income groups.
- The poor would be more affected by a monetary price increase when the income elasticity of demand is less than one, and when the value of the time spent consuming the good is a relatively large part of the total cost of consumption.

Source: The Economic Theory of Illegal Goods: the Case of Drugs. Gary S. Becker, Kevin M. Murphy, and Michael Grossman. NBER Working Paper No. 10976.

Sin taxes

- Making goods illegal and punishing suppliers and consumers by imprisonment and other methods are more costly to higher income persons, and hence tends to reduce their consumption more than consumption of lower income persons.
- Consumption of these goods by middle and richer individuals are reduced more when they are illegal than subject to the high sin taxes.
- The intent may not be to inflict greater harm on the poor, but making goods like drugs, gambling, and prostitution illegal, and mainly punishing traffickers, has precisely that effect

Source: The Economic Theory of Illegal Goods: the Case of Drugs. Gary S. Becker, Kevin M. Murphy, and Michael Grossman. NBER Working Paper No. 10976.

Demand for drugs

- The demand for drugs is assumed to depend on the market price of drugs that is affected by the costs imposed on traffickers through enforcement and punishment, such as confiscation of drugs and imprisonment. The demand for drugs also depends on the costs imposed by the government on users.

Source: The Economic Theory of Illegal Goods: the Case of Drugs.
Gary S. Becker, Kevin M. Murphy, and Michael Grossman. NBER
Working Paper No. 10976.

What to remember

- Social value
- Private value
- Transactional costs
- Risk premium
- Rational choice theory
- Law of Demand
- Elastic Demand
- Inelastic Demand
- Price Discrimination
- Sin taxes



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