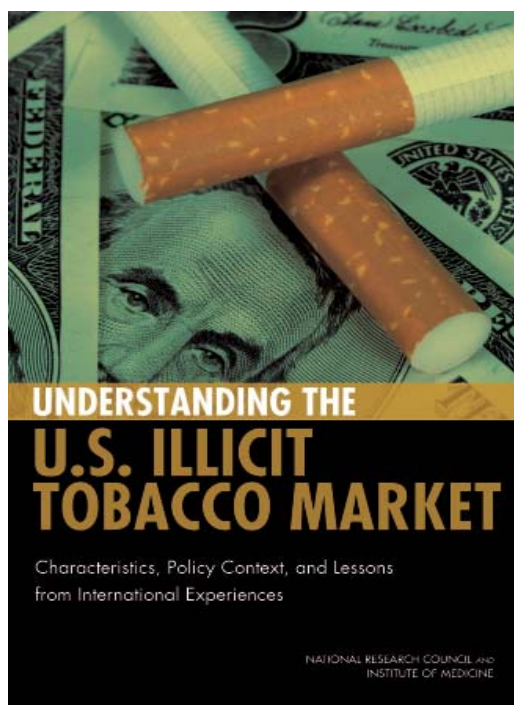


## REPORT BRIEF

# UNDERSTANDING THE U.S. ILLICIT TOBACCO MARKET: CHARACTERISTICS, POLICY CONTEXT, AND LESSONS FROM INTERNATIONAL EXPERIENCES



Tobacco use has declined because of measures such as high taxes on tobacco products and bans on advertising, but worldwide there are still more than one billion people who regularly use tobacco, including many who purchase products illicitly. Illicit tobacco markets can deprive governments of revenue and undermine public health efforts to reduce tobacco use.

As the U.S. Food and Drug Administration considers possible regulations for tobacco products, it is important to understand how any such regulations could affect illicit tobacco markets. As part of its considerations, FDA asked the National Research Council and the Institute of Medicine to convene a panel of experts to assess the U.S. and international illicit tobacco markets, the effects of various policies on the market, and the extent to which international experiences apply to the United States. The committee's findings are detailed in its report *Understanding the U.S. Illicit Tobacco Market* (2015).

In the United States, the illicit tobacco market consists mostly of bootlegging from low-tax states to high-tax states. The portion of the total U.S. tobacco market represented by illicit sales has grown in recent years and is now between 8.5 percent and 21 percent. This represents between 1.24 to 2.91 billion packs of cigarettes annually and between \$2.95 billion and \$6.92 billion in lost gross state and local tax revenues. While there is insufficient evidence to draw firm conclusions about how the U.S. illicit tobacco market would respond to any new regulations that modify cigarettes—for example, by lowering nicotine content or eliminating menthol—the limited available evidence suggests that demand for illicit versions of conventional cigarettes would likely be modest.

**THE NATIONAL ACADEMIES**

*Advisers to the Nation on Science, Engineering, and Medicine*

## THE NATURE OF THE EXISTING ILLICIT MARKET

Worldwide, the illicit tobacco trade takes four main forms:

**Bootlegging** is the legal purchase of cigarettes in one jurisdiction and their consumption or resale in another jurisdiction without paying applicable taxes or duties.

**Large-scale smuggling** is the sale of cigarettes without the payment of applicable taxes or duties, even in their country of origin. (The term “large-scale smuggling” refers not to the scale of the evasion activity, but rather to its nature.)

**Illicit whites** are cigarettes that are legally produced under unique brand names or no brand name at all and that are destined primarily or exclusively for illicit distribution.

**Illegal production** comes in two main forms: the unlicensed or underreported production of legitimate tobacco products; and counterfeiting, the production of cigarettes with brand labels that are used without the permission of the trademark owner.

In the United States, the illicit tobacco market has traditionally consisted of bootlegging from Native American reservations and low-tax states such as Virginia to high-tax states such as New York; bootlegging from other countries appears minimal. Large-scale smuggling does not appear to be a significant part of the U.S. illicit cigarette market. Also largely absent from the U.S. market are illicit whites and illegal production, including counterfeiting. Although tobacco companies have promoted the smuggling of legally manufactured cigarettes at the global level, there is no evidence that the tobacco industry is currently involved in the illicit trade in the United States.

Many claims have been made about the relationship between the illicit tobacco trade and terrorism, but the link between the U.S. illicit tobacco market and terrorism appears to be minor. There is also no systematic evidence for a sustained link between the global illicit tobacco trade and terrorism.

## THE SIZE OF THE ILLICIT MARKET

The size of the illicit tobacco market is difficult to measure. To estimate the size of the illicit market in the United States, the study committee compared self-reported cigarette consumption and

tax-paid sales for years 2010-2011. This yielded an estimate that the percentage of total tobacco sales that avoided or evaded taxes is 8.5 percent—a portion that has increased from 3.2 percent in 1992-1993.

This provides just one estimate with both strengths and limitations; to obtain the most comprehensive picture of the size of the illicit market, multiple methods should be used. Using its own estimate and plausible estimates from other methodologies to establish a range, the committee determined that the percentage of the total market represented by illicit sales in the United States is between 8.5 percent and 21 percent. This range represents between 1.24 and 2.91 billion packs of cigarettes annually and between \$2.95 billion and \$6.92 billion in lost gross state and local tax revenues. These are cigarettes on which the proper state and local taxes have not been fully paid; whereas almost all the federal tax has been paid.

The illicit tobacco market is distributed unevenly across states. It may be as high as 45 percent in high-tax states such as New York, while in other parts of the country participation in the illicit market appears to be low. The committee classified 22 states and the District of Columbia as net exporters of illicit cigarettes, and the remaining 28 states as net importers.

Internationally, while the price of cigarettes is important in determining the size of a country’s illicit tobacco market, other factors—such as weak governance, political corruption, and the ease and cost of operating in a country—are at least as important.

## POLICY AND ENFORCEMENT INTERVENTIONS

Opportunities exist for the government to control the tobacco supply chain by imposing licensing and regulatory requirements on tobacco growers, manufacturers, distributors, wholesalers, and retailers. Digital tax stamps with encrypted information and related tracking and tracing technologies are an approach to combating the illicit tobacco trade by monitoring and controlling the supply chain. Tracking and tracing aids law enforcement efforts to investigate tobacco smuggling and identify the points at which tobacco products are diverted into illicit markets.

Interventions can also try to undermine the conditions that make illegal trade possible. For example,

## OTHER NATIONS' EFFORTS TO CONTROL ILLICIT TOBACCO MARKETS

Broad-ranging interventions adopted by several countries show that it is possible to reduce the size of the illicit market by dedicating tobacco-specific resources for enforcement, collaborating across jurisdictions, and adopting comprehensive intervention strategies that use a variety of regulatory, enforcement, and policy approaches.

- The United Kingdom used stamping and marking requirements on cigarettes, agreements with tobacco manufacturers, enhanced enforcement efforts, and public education campaigns to reduce the size of its illicit market from 21 percent of the total tobacco market in 2000 to 9 percent in 2013.
- Canada reduced the illicit share of its market from nearly 30 percent in the early 1990s to between 7.6 percent and 14.7 percent in 2010 through sweeping intervention efforts, including licensing, tax stamps, enforcement, tax harmonization, tribal tax revenue agreements, legal agreements with tobacco manufacturers, and public education campaigns.
- Spain was able to reduce the share of its illicit market from 15 percent in 1995 to 2 percent in 2001 through licensing and control measures, enforcement efforts, and legal agreements.

enacting a tax harmonization program, although politically challenging, would address one key cause of the U.S. illicit trade: very different tax rates across states. Public education campaigns aimed directly at those who participate in the illicit trade show some promise as well.

However, regulations and technologies to monitor and control the supply of tobacco products will have limited impact without enforcement efforts. These efforts face three challenges: the changing nature of illicit tobacco markets, the need to coordinate across various agencies and levels of government, and the fact that the illicit tobacco trade has been a low priority. Illicit tobacco is generally treated as an economic rather than a criminal problem, especially since the trade has been nonviolent. Law enforcement efforts to investigate the illicit trade tend to be weak and uneven, and criminal prosecution of those involved is an extremely low priority for prosecutors. Although the scarcity of data makes it difficult to estimate the risks faced by tobacco smugglers, the available evidence strongly suggests the risks of detection and prosecution are small.

### POTENTIAL EFFECTS OF PRODUCT CHANGES ON ILLICIT MARKETS

In the future, illicit markets that may arise as a result of regulations on how cigarettes are designed, formulated, packaged, or marketed could be very different from current markets in terms of what is driving demand and supply. One key question in trying to assess the possible effects

of regulations is how modifying cigarettes might affect the appeal they have for consumers. Some studies in several countries have examined this question.

- Experimental studies have found that **reducing ignition capacity** (requiring that cigarettes extinguish when not actively puffed) **and decreasing filter ventilation** have only modest impact on product appeal among U.S. smokers.
- **Reducing nicotine levels and mentholation** has been shown in experimental studies to have a stronger effect on reducing product appeal. Existing studies have shown mixed results on smokers' use and preferences: Some studies have found that most smokers intend to quit rather than seek alternative products. Other studies have found that smokers are able to tolerate substantial reductions in nicotine with little to no change in individual cigarette consumption. Several new research initiatives are under way on this issue, and more definitive findings are anticipated. Studies are also needed to examine the relationship between e-cigarette use and the use of conventional tobacco products and on the role of e-cigarette use as an alternative to participation in the illicit tobacco market.
- **Cigarette packs with large graphic warning labels or in plain packaging** have also been shown to reduce product appeal. In countries that have required these, it has promoted quitting behaviors. Some who continue to smoke



have used stickers or branded containers to conceal graphic health warnings—strategies that subvert the intent of the law, but which are an alternative to purchasing illicit products.

Because aggressive policies to modify tobacco products are new in the countries that have issued them, there have been few studies of their effects on the illicit market. Research on the emerging effects of regulatory actions in other countries, such as Brazil's pending ban on tobacco additives (including menthol), could provide guidance for the United States.

Overall, the limited evidence that exists suggests that if current cigarettes are modified through regulations, the demand for illicit versions of them is likely to be modest. Nevertheless, there is insufficient evidence to draw strong conclusions about how the illicit market would adapt in response to permanent modifications to tobacco products as the result of any new regulations.

## RESEARCH AND DATA NEEDS

In order to better understand the nature of existing illicit tobacco markets and the ways they may evolve in the future, additional research and data are needed across a broad range of areas. For example, research that provides a deeper understanding of the individual and criminal networks that traffic in illicit tobacco in the United States would offer valuable knowledge about how illicit supply chains may evolve in the future. Research is also needed to examine how smokers respond to the permanent loss of specific product features they have previously found desirable. And studies should examine the relationship between e-cigarette use and the use of conventional tobacco products and on the role of e-cigarette use as an alternative to participation in the illicit tobacco market.

## COMMITTEE ON THE ILLICIT TOBACCO MARKET: COLLECTION AND ANALYSIS OF THE INTERNATIONAL EXPERIENCE

**PETER REUTER (Chair)**, School of Public Policy and Department of Criminology, University of Maryland; **MARTIN BOUCHARD**, School of Criminology, Simon Fraser University, Canada; **FRANK J. CHALOUKKA**, Health Policy Center, University of Illinois at Chicago; **PHILIP J. COOK**, Sanford School of Public Policy, Duke University; **MATTHEW C. FARRELLY**, Public Health Policy Research Program, RTI International, Research Triangle Park, NC; **GEOFFREY T. FONG**, Department of Psychology and School of Public Health and Health Systems, University of Waterloo, and Ontario Institute for Cancer Research, Canada; **RACHEL A. HARMON**, University of Virginia Law School; **EDWARD R. KLEEMANS**, Faculty of Law, VU University Amsterdam; **CONRAD PHILLIP KOTTAK**, Department of Anthropology, University of Michigan (emeritus); **MICHAEL LEVI**, School of Social Sciences, Cardiff University, Wales; **EMILY OWENS**, Department of Criminology, University of Pennsylvania; **VAUGHAN W. REES**, Center for Global Tobacco Control, Department of Social and Behavioral Sciences, Harvard School of Public Health; **ANTHONY D. SO**, Sanford School of Public Policy, Duke University; **KLAUS VON LAMPE**, John Jay College of Criminal Justice, City University of New York; **HEATHER WIPFLI**, Institute for Global Health, University of Southern California; **MALAY MAJMUNDAR**, *Study Director*; **JULIE ANNE SCHUCK**, *Senior Program Associate*; **EMILY BACKES**, *Research Associate*; **LETICIA GARCILAZO GREEN**, *Program Assistant (as of July 2014)*

**For More Information . . .** This brief was prepared by the Committee on Law and Justice based on the report *Understanding the Illicit Tobacco Market: Characteristics, Policy Context, and Lessons from International Experiences*. The study was sponsored by the U.S. Food and Drug Administration. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the sponsor. Copies of the report are available from the National Academies Press, (800) 624-6242 or <http://www.nap.edu>, or by visiting the CLAJ website at <http://sites.nationalacademies.org/DBASSE/CLAJ/index.htm>

## THE NATIONAL ACADEMIES *Advisers to the Nation on Science, Engineering, and Medicine*

The nation turns to the National Academies—National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council—for independent, objective advice on issues that affect people's lives worldwide.

[www.national-academies.org](http://www.national-academies.org)

Copyright © 2015 by the National Academy of Sciences.

Permission is granted to reproduce this document in its entirety, with no additions or alteration.