

What have economists contributed to our understanding of criminal behaviour and crime control? In the introduction to a new book he has co-edited, **Olivier Marie** explains the economic approach to crime and its importance in the analysis, design and evaluation of crime-fighting policies.



# Lessons from the economics of crime

**A**s we approach the fiftieth anniversary of Nobel laureate Gary Becker's seminal contribution (Becker, 1968), it is fair to say that the economics of crime is part of the standard portfolio that makes up the discipline. On both sides of the Atlantic, a critical mass of academic economists has specialised in the study of crime and its control. For example, a series of CEP studies has contributed to making sense of the UK's 'riddle of peacefulness' (Draca, 2013) and analysing which policies can be most effective in reducing crime (Marie, 2010).

Of course, social scientific study of crime was well established by the time of Gary Becker's contribution. Prior to that, from the 1920s, the dominant disciplines were sociology and psychology, and that continued as criminology departments and schools were established in the post-war period. Becker chose to bypass rather than engage with that tradition, stating that 'a useful theory of criminal behaviour can dispense with special theories of anomie, psychological inadequacies, or inheritance of special traits and simply extend the economist's analysis of choice.'

With this bit of disciplinary imperialism

as a guide, subsequent contributions from economics tended to adopt the view that crime research was virgin territory. Economists were initially not so welcome in criminology and, for the most part, were unconcerned, feeling that they had little to learn from the 'natives'. More recently, that separation between economics and criminology has begun to break down, an encouraging trend that can be traced in part to the growth of multi-disciplinary public-policy programmes and think-tanks.

In a new book, we examine what economists have contributed to the study of criminal behaviour and crime control and identify four key strands:

- A normative framework for evaluating criminal law and crime prevention.
- The application of sophisticated quantitative methods to analyse the causes of crime and the effects of crime-control measures in this framework.
- The conception of criminal behaviour as individual choice, influenced by perceived consequences.
- The aggregation of individual choices into a systems framework for understanding crime rates and patterns.

## Policy choice

During the tumultuous years of the 1960s, with riots in US cities and escalating rates of crime and drug abuse, Congress created several high-profile commissions to assess the underlying problems and recommend effective reforms. When these commissions turned to the prominent criminologists of the day, they offered their opinions but had little in the way of relevant evidence. The political scientist James Q Wilson was a critical observer of criminology at the time and observed that its sociological orientation did not lend itself to evidence-based policy recommendations.

Crime was understood to be caused by culture and social structure. An analysis of these 'root causes' of crime provided little guidance for policy-makers, whose ability to change structural aspects of society was very limited. Moreover, the sociologists were highly sceptical of deterrence, denying a role for the criminal justice system in controlling crime. In Britain, the lack of connection between criminology and policy was perhaps even greater, since the dominant ethos was against policy engagement, in part because of its heavier focus on the social context of crime.

Among the social sciences, economics

## Crime can be analysed using the same apparatus routinely applied to education and health



tends to be best suited for addressing issues relevant to policy design. The economic model presumes that observed behaviour is not the inevitable result of underlying social conditions, but rather results from individual choices influenced by perceived consequences. If government policy can change those consequences, then behaviour change will follow. Furthermore, uniquely among the social and behavioural sciences, economics incorporates a well-developed normative framework that defines the public interest and lends itself to policy prescription.

Indeed, Becker's contribution was primarily in the normative realm. He pointed out that the social costs associated with crime are the sum of the direct costs of victimisation (and the threat of victimisation) and the indirect costs of efforts to control and prevent crime. If the goal is to minimise total social costs, then the optimal amount of crime is unlikely to be zero, since at some point the marginal costs of additional prevention will exceed

the marginal benefit of an additional reduction in crime. And just because crime rates are declining does not mean that the 'crime problem' is less overall – crime-control costs, such as large increases in the prison population in most countries, especially the United States, must be considered.

The normative framework also provides guidance for evaluating specific interventions. The economic question is not limited to 'what works?' in crime control, but 'what is worthwhile?' Cost-benefit analysis provides a set of rules for answering that question, and more generally encourages a comprehensive approach to evaluation.

### Quantitative methods

The other important feature of the application of the normative framework has been the contribution by economists of using advanced and innovative statistical methods. As economists have increasingly embraced the use of natural and field

experiments, they have developed a much more robust understanding of what causes crime and are now able to generate good estimates of the efficiency of different policy tools.

One economist who has been particularly creative in finding ways to identify the causes of crime is the University of Chicago's Steven Levitt, whose research (and subsequent emergence as a celebrity, thanks to his 2005 *Freakonomics* book) has done much to inspire subsequent cohorts of graduate students in economics. Massive improvements in data quality and availability have also made possible great progress in statistical investigations into the causes of crime and what works to reduce offending.

### Crime as a rational choice

A simplistic but common understanding of crime is that the population can be divided neatly into two groups: good guys and bad guys. In this view, the bad guys commit crime unless they are incapacitated, and the

good guys are reliably law abiding. The economic model of crime shifts the focus from character to the choices available to individuals. While certain aspects of character (or what economists are inclined to call 'preferences') are surely not irrelevant, criminal activity represents a choice or set of choices that is available to everyone.

The choice of whether to commit crime is driven by the consequences, which differ among individuals depending on the opportunities available to them. For example, a school dropout will have relatively poor opportunities to earn a legitimate living, but lack of schooling is no barrier to larceny or robbery. For that reason alone, we expect dropouts to be over-represented among active criminals.

This perspective leads naturally to a presumption that deterrence works – that crime rates will be inversely related to the likelihood and severity of punishment. But the economic model also incorporates the idea that programmes to improve legitimate life opportunities may have a deterrent effect through increasing the opportunity cost of time spent in criminal activity or prison.

People with something to lose are less likely to view criminal participation as attractive, and crime reduction can therefore be achieved by influencing the life opportunities of potential offenders. For example, some recent studies have shown that education has a large crime-reducing effect on cohorts of individuals that were forced to stay longer at school because of changes in minimum school leaving age legislation.

The economic focus on choices and consequences does not preclude the possibility that character is also important in influencing criminal involvement. Efforts to rehabilitate criminals may focus on either increasing the quality of legitimate opportunities (typically by improving human capital or clearing away barriers to earning a legitimate living) or changing cognitive

## Criminal behaviour results from individual choices influenced by perceived consequences

processes and capacities, such as self-control, empathy and rationalisation.

While there have been myriad evaluations of specific programmes intended to reduce rates of recidivism, there still remains considerable uncertainty about the overall effect of a spell of imprisonment on subsequent behaviour.

### Feedbacks and interactions

Economics is a social science. The theory of individual behaviour serves as a building block for a theory of aggregate outcomes. The interacting systems that connect crime-related choices by individuals to aggregate outcomes have not been fully worked out by economists, but the research literature provides a start on this project.

Criminal activity may be viewed as produced by individuals (active criminals) at a rate that is limited by the activities of the criminal justice system and private security measures. The electorate chooses through the political process how much public resource to devote to the criminal justice system, and households and businesses make myriad individual choices about how much private effort to devote to crime prevention and avoidance. A further complication is that the effectiveness of the criminal justice system is very much dependent on private (often voluntary) inputs, such as reporting crimes and providing information and testimony during investigations.

There are at least three noteworthy feedback loops in this system:

- First, the capacity of the criminal justice system to control crime may be diluted by an increase in crime rates, which then causes a reduction in the likelihood or severity of punishment – resulting in further increases in crime.
- Second, an increase in the crime rate may raise the political salience of crime, leading to increased criminal-justice budgets and stricter sentencing, which may then rein in the crime rate.
- Third, an increase in crime may induce greater private efforts at prevention and avoidance of criminal victimisation, including actions ranging from locking up valuables and carrying a weapon, to hiring guards or relocating commercial activity to safer neighbourhoods.

Observed crime rates are thus the outcome of a complex interactive system,

which may frustrate the goal of making unambiguous predictions or even keeping track of all the relevant mechanisms.

### Crime economics

Economists are here to stay in the study of crime, the criminal justice system and crime prevention. They have brought with them a strong presumption that criminal behaviour can be modelled using the same conceptual apparatus that has been developed for risky decision-making, labour supply, consumer and firm behaviour, and even market structure and performance.

What's more, criminal law and crime-prevention programmes can be evaluated using the same normative apparatus that is routinely applied to education, health and environmental regulation. This 'technology transfer' to the criminal domain, initiated by Gary Becker in 1968, has proven productive for both scholars and policy-makers.

This article introduces *Lessons from the Economics of Crime* edited by Philip J Cook, Stephen Machin, Olivier Marie and Giovanni Mastrobuoni, published by MIT Press (<http://mitpress.mit.edu/books/lessons-economics-crime>).

**Philip J Cook** is at the Sanford School of Public Policy at Duke University. **Stephen Machin** is professor of economics at University College London and CEP's research director. **Olivier Marie** is at Maastricht University. **Giovanni Mastrobuoni** is at the University of Essex.

### Further reading

Gary Becker (1968) 'Crime and Punishment: An Economic Approach', *Journal of Political Economy* 76: 169-217.

Mirko Draca (2013) 'The UK's Riddle of Peacefulness: What Explains Falling Crime?', *CentrePiece* 18(1) (<http://cep.lse.ac.uk/pubs/download/cp392.pdf>).

Steven Levitt (2005) *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything*, William Morrow.

Olivier Marie (2010) 'Reducing Crime: More Police, More Prisons or More Pay?', CEP Policy Analysis No. 12 (<http://cep.lse.ac.uk/pubs/download/pa012.pdf>).