Journal of Public Economics 135 (2016) 1–14

Contents lists available at ScienceDirect

Journal of Public Economics

journal homepage: www.elsevier.com/locate/jpube

Crime and conspicuous consumption☆

Daniel Mejía [a], Pascual Restrepo [b,*]

[a] Universidad de los Andes, Colombia
[b] Massachusetts Institute of Technology, United States

ARTICLE INFO

Article history:
Received 27 September 2013
Received in revised form 25 April 2015
Accepted 25 June 2015
Available online 18 July 2015

JEL classification:
K42
D11
D12

Keywords:
Crime
Conspicuous consumption
Concerns for status

ABSTRACT

We study how property crime distorts consumption decisions. Using an incomplete information model, we argue that consuming conspicuous goods reveals information to criminals seeking bountiful victims and increases the likelihood of being victimized. Thus, property crime reduces the consumption of visible goods, even when these cannot be directly stolen but simply carry information about a potential victim's wealth. We exploit the large decline in property crime in the U.S. during the 90s to test this mechanism. Using data from the U.S. Consumer Expenditure Survey from 1986 to 2003, we find that households located in states experiencing sharper reductions in property crime increased significantly their consumption of visible goods, even when these goods are not generally stolen, both in absolute terms and relative to other consumption goods. Our findings hold when we instrument the decline in property crime during the 90s using a variety of strategies.

> "*[whether or not I decide to rob a particular person] depends on what they got; like if they are wearing nice clothes, jewelry, and you know, that's basically it. You can look at a person and just tell if they've got money….*" [quoted by Wright and Decker (1997)].

> "*Where a large number of residents are not only rich but are also ostentatious or highly publicized, their homes are obvious targets [for the alert burglar]*" [excerpt from the book "Crime in the Suburbs," Loth (1967)].

1. Introduction

As the quotes above suggest, armed robbers and burglars rely on outward signs of wealth, such as clothing and demeanor, in order to judge how much cash and valuables people are likely to have in their pockets or inside their house. Thus, when deciding their conspicuous consumption (visible goods that signal wealth), individuals face a trade-off between status and security. While conspicuous consumption leads to higher social status by signaling wealth to peers, it also makes an individual a more attractive target for criminals seeking bountiful victims. As a consequence, individuals would behave less ostentatiously by reducing their consumption of visible goods during periods of high property crime, since concealing information about their wealth reduces their chances of being targeted and victimized. The possibility to stay safe by not luring criminals does not seem to have escaped people's minds and remains a common advice. For instance Di Tella et al. (2010) document that, during a large crime wave in Argentina, people responded by trying to "appear" poor (for instance, by using less jewelry or flashy clothes when going out). In 1983, a Kansas newspaper reported that people were not buying Rolls-Royces because "they fear being followed home and robbed" (Lawrence Journal-World, 1983). Other newspapers during the 80s also contained advice for travelers, urging them to avoid ostentatious symbols of wealth and dress casually in order to reduce the chances of victimization (The Milwaukee Journal, 1983). In this paper we move beyond the anecdotal and survey evidence and investigate whether U.S. consumers indeed respond to property crime by reducing their conspicuous consumption.

We first explain the economic mechanism outlined above using a canonical model of conspicuous consumption augmented to include property crime. In the model, individuals have concerns for status—defined as others' beliefs about their wealth—and signal their privately observed wealth by consuming more of a visible (conspicuous) good (Ireland, 1994; Glazer and Konrad, 1996; Bagwell and Bernheim, 1996; Charles et al., 2009; Heffetz, 2011). However, signals are not only

☆ We are grateful to Erzo Luttmer and four anonymous referees for very detailed and helpful comments and suggestions. We also thank Sophie Bade, Adriana Camacho, Glenn Loury, Fabiana Machado, Joao De Mello, Rajiv Sethi, Andres Zambrano and seminar participants at Brown, the Inter-American Development Bank, LACEA, PUC-Rio, Universidad de los Andes, Universidad del Rosario and the II Bonn-Paris workshop on the Economics of Crime for their suggestions. Santiago Franco and Karen Del Mar Ortiz provided excellent research assistance.

* Corresponding author.
E-mail addresses: dmejia@uniandes.edu.co (D. Mejía), pascual@mit.edu (P. Restrepo).

http://dx.doi.org/10.1016/j.jpubeco.2015.06.004
0047-2727/

observed by peers, but also by criminals with some probability. Since committing a crime is costly and criminals do not perfectly observe their victims' cash and valuables, criminals prefer to target individuals signaling more wealth, who "offer" a higher expected bounty.[1] Thus, when deciding the optimal consumption of observable goods, individuals trade off status with the expected cost of becoming the target of a robbery or burglary. Our model predicts that an increase in property crime reduces the consumption of visible goods. Importantly, this is the case even if these goods do not include valuables that can be stolen by criminals (like jewelry), but simply signal wealth (like most clothes, or attending exclusive events). To the best of our knowledge, the channel we propose—through which property crime affects consumption decisions—has not previously been explored in the economics literature.[2]

We test our mechanism empirically in the context of the large crime decline observed in the U.S. from 1990 to 2000, when both violent and property crime declined dramatically (Levitt, 2004; Zimring, 2006). Homicides fell by 39%, car theft by 37%, robberies by 44% and burglaries by 41%. The decline was sharp, persistent, unanticipated and exhibited considerable variation between states in its timing and extent. For example, in New York, all crime categories fell roughly two times more than the national average, while in states like North Carolina, property crime and homicides barely changed during the 90s. The extent and variation of the decline can be grasped from Fig. 1, which plots the observed decrease in property crime (defined as an average between robberies and burglaries) against its component not explained by changes in demographic and economic factors in each state from 1986 to 2003.

The changes in crime depicted in Fig. 1 provide a unique setting to study the effects of property crime on consumption decisions. The magnitude and persistence of these changes probably gave households a chance to understand the new circumstances and adjust their consumption. Indeed, the great crime decline of the 90s may be one of the most significant changes in urban life in the U.S.: New Yorkers went from living in "the world's homicide capital"—as newspapers use to call it in the 80s—to live in a relatively safe city within a decade. As the New York magazine put it, the 90s brought to the city "the end of crime as we know it" (New York magazine, August 1995).

We exploit the large heterogeneity in the property crime decline to estimate the relation between crime and consumption patterns. We use the CEX consumer expenditure survey from 1986 to 2003 to measure households' consumption of visible goods, and compare it across households located in states experiencing different declines in crime during the 90s. Our estimates control for a wide range of household and state characteristics, and state and year fixed effects. Consistent with our model, we find that crime is associated with a lower consumption of visible (conspicuous) goods—those that can be easily observed despite little interaction between a criminal and a victim and that are associated with a higher wealth, including jewelry and clothing, or attending upscale events and restaurants. This is the case when we use a dichotomous classification of goods into visible and not visible, or when we focus on the average visibility of households' consumption bundles using the indices proposed by Heffetz (2011) or Charles et al. (2009) as measures of visibility.

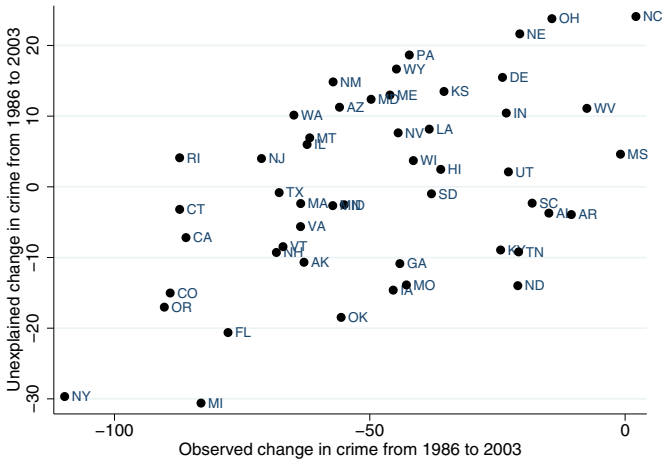

Fig. 1. The figure plots the observed and the unexplained change (conditional on demographics and economic changes) in property crime, measured as the average between the robbery and burglary rate (from the FBI uniform crime reports), for each U.S. state from 1986 to 2003.

We provide evidence suggesting that other reasonable channels are not driving the association between crime and conspicuous consumption. First, we show that crime is associated with a lower consumption of visible goods, even if these goods do not include valuables that can be directly stolen (like jewelry or some electronics). Thus, our findings suggest that households cut their consumption of visible goods not only because some of these may be stolen, but also because they reveal information about their wealth. Second, we show that the documented relationship holds after controlling for the potential income effects that crime can generate and after taking into account that visible goods have larger income elasticities (Heffetz, 2011). Third, we show that the relationship is specific to property crime; murders and other violent crimes are not associated with less consumption of visible goods. Thus, we do not think our results are driven by people being afraid of going out in general, but rather by people being afraid of looking wealthy and attracting criminals when doing so. Furthermore, we discuss some additional evidence indicating that there is no relationship between property crime and time spent socializing or outside home or the workplace. These features underscore the role of visibility—as in our proposed mechanism—in mediating the role of crime on visible consumption, and suggest that one important reason why households cut conspicuous consumption when facing more property crime is to conceal information about their wealth from criminals.

The relationship between crime and consumption patterns is identified from the heterogeneous reduction in crime across states observed between 1987 and 2003, after controlling for several household characteristics, state demographics and economic conditions (e.g., racial and age composition, average income and wages, inequality, and unemployment), and state and year fixed effects. This essentially corresponds to the variation plotted in Fig. 1. A causal interpretation of our estimates requires this variation to be orthogonal to consumption patterns. Though, to us, this seems a plausible assumption, we cannot rule out the existence of non-observables correlated with both crime and conspicuous consumption. To explore these endogeneity concerns, we provide a series of instrumental variables estimates. In particular, we show that our main results hold when we instrument the crime decline in each state using abortions in the 70s, the increase in the police force during this period and the cumulative prison population, following Levitt (2004). We also explore results instrumenting the reduction in property crime with the reduction in murders to exploit common shocks driving all types of crime down, and not simply property crime, during this period. Finally, we also instrument crime using the fact that its decline was faster in states with a higher crime level in the 80s, either because of mean reversion or because new policing

[1] The extensive ethnographic evidence cited in Wright and Decker (1996) and Wright and Decker (1997) suggests that criminals are sophisticated when making the decision of who to target. Related to this, Draca et al. (2014) show that criminals target valuables with higher prices.

[2] Our mechanism is related to the public economics literature on taxation under incomplete information. In these models, a progressive tax on wealth reduces the consumption of visible goods and reduces the distortions introduced by concerns for status, without having to tax these goods directly. This may occur because income taxes reduce the previously distorted labor supply, as in (Ireland, 1998, 2001), or because the government does not observe income or types, and visible goods carry information used for taxation—which is closer to our mechanism. Our innovation is to interpret property crime as a progressive tax and to study its effect on consumption empirically. In our model, property crime may act as a Pigovian tax on conspicuous consumption and limit status-seeking, with the difference that criminals' efforts are also deadweight losses.