

# Property rights in illicit markets: an application to drug markets in São Paulo.\*

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## Abstract

In this paper we study a situation in which an agreement among criminals, resembling property rights' enforceability on its effect to the economic allocation, can emerge in illicit markets. We then argue that such situation is empirically plausible by presenting the motivating case for our theory: the fall on violent-crime rates last decade in São Paulo, the richest state in Brazil.

In our main result, we use the *mechanism design approach* to show that a change inside the prison system, from a competitive environment to the hegemony of a group of criminals, implies the subgame-perfect Nash equilibrium in profitable (but risky) illicit markets outside prison to shift from warfare to peace among market dealers. Specifically, the hegemonic group of criminals is shown to *desire* and to *be able to promote* a collusive agreement among dealers under which no violence is performed. This contrasts with the subgame-perfect Nash equilibrium under no hegemony inside prison system, in which the possibility to expel others from the market is shown to drive violence up to a positive level.

Our result is relevant for public policy since it shows that legalizing profitable illicit activities would not have the expected effect (reduction on the activity-related violence) if property rights has already been enforced by market participants.

JEL-Classification: C73, D23, D74

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