



Economics of organized crime

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Abstract

The core function of organized crime is the selling of protection. Protection can be real, against third-party crime, or manufactured by the organized crime groups themselves. Mafias and gangs emerge in areas of weak state control, because of prohibition and geographic, ethnic, or social isolation. Although competition is considered good in economics, in the case of organized crime the predatory competition that is more likely to take place is harmful. The costs of organized crime include the resources expended on the activity, more ordinary productive and investment distortions, as well as other dynamic effects on occupational choice.

Keywords: law, economics, property rights, governance, mafias, drug cartels

1. Introduction

From highly sophisticated mafias to youth street gangs, organized crime is present in almost every country in the world. In addition to the better publicized Italian and American mafias^[1], examples include the Yakuza in Japan, the Triads in Hong Kong, Shanghai's Green Gang, Colombian and Mexican drug cartels, numerous groupings in post-Soviet states, youth gangs in Los Angeles, New York, Soweto, or Sao Paulo, as well as many other less well-known – even some, given the nature of the business, unknowable – groups. Organized crime engages in much regular economic activity, the production and distribution of a wide variety of goods and services that are typically both legal and illegal – from construction and restaurant services to drugs, gambling, and prostitution. For that reason we might be tempted to think that mafias and gangs are just like any typical business firm and are therefore subject to the same economic analysis that ordinary firms are. However, the defining activity of an organized crime group -- in the absence of which its other activities could not take place at all or their nature would drastically change -- is the provision of *protection*. Protection is not an ordinary economic activity. It is supposed to protect the ownership of other goods and services and make their contractual exchange enforceable. And, that enforceability does not come from the laws and courts -- to which an ordinary security firm and its clients have access -- but ultimately from the barrel of a mafioso's gun. The problem, of course, is that that gun can be turned not just against potential transgressors but also against those it is supposed to protect. That is the peculiarity of protection and it makes organized crime groups less akin to ordinary business firms and more similar to the traditional provider of protection and security, the state. However, the type of states that organized crime groups have similarities with are the early, proprietary,

tribute-extracting, autocratic chiefdoms and states that are far removed from today's modern states. That is, it would be better to think of mafiosi as feudal lords than anything close to bureaucrats.

We will first trace the origins of organized crime to conditions of anarchy, to power vacuums that are created by geography, political, social and ethnic distance, as well as legal vacuums that might be created by the prohibition of certain goods and services within modern states. We will then discuss the hierarchical organization of organized crime and its market structure. In particular, we will distinguish between two types of competition that may exist between organized groups that have very different implications for economic efficiency. One type is ordinary economic competition in terms of the price and quality of the service that is provided which in this case, as just mentioned, is protection. The other type of competition is predatory competition for turf among competing groups which has deleterious economics effects. After discussing some consequence of organized crime, we conclude.

2. Origins of organized crime

In a fundamental way, organized crime emerges in conditions that are antithetical to a main assumption of much of economic modeling: the perfect and costless enforcement of property rights. If that assumption were to strictly hold, there would be no possibility for a mafioso to ask for protection money, for the potential victim could costlessly take the extortionist to court and win. The mafioso can exist only when property rights are costly to enforce or imperfect. The more costly and imperfect property rights enforcement is, the lower can be expected to be the efficacy of the State as manifested in its laws, courts, police, other government agencies. Organized crime is more likely to emerge then in conditions under which either the State is weak or when the State effectively cedes control by, for example, prohibiting certain activities that are then picked up by organized crime. That is, organized crime is more likely to emerge in conditions that are close to anarchy (absence of rule) and there is a power vacuum. Simple *geographic distance and inaccessibility* from the centers of

¹ For the Italian mafias see Hess (1973), Arlacchi (1986), and Gambetta (1993), whereas for the American mafias see Reuter (1995) and Jacobs (1999). For the Russian mafia and Japanese Yakuza see Varese (2001) and Hill (2006), respectively.

power is a main factor that reduces state authority. No states have, or have had in the past, an absolute monopoly of the use of force within their territories. In addition to ordinary crime, there are and have been areas within which it is too costly for state to extend direct control. Jungles, mountains, or deserts have thus been breeding grounds of brigandage and rebellions. Geography then can play a role in creating a vacuum of power that can be filled by organizations that play the role of quasi-states. The Amazon jungle, for example, has been a place in which Brazil, Peru, Ecuador, or Colombia has had difficulty extending their state power over their respective areas. Private armies, financed by landlords or drug traffickers, guerillas, and paramilitaries have been continually fighting among themselves and, sometimes, against governments for control over territories. Another type of distance from the center of power that matters is that of *ethnic and social distance*. American youth gangs have traditionally flourished in low-income areas often populated by a homogeneous ethnic group – Irish, African-American, Hispanic. Many residents of such areas typically have viewed themselves as being apart and discriminated by the larger society (See Jankowski, 1991). The police and the justice system have also been often viewed at best as indifferent to their welfare and at worst as agents of repression. Therefore, ordinary crime becomes difficult to control in such areas, and gangs step in to fill the gap that is created, but also further contribute to violence in a more organized fashion. The townships of apartheid South Africa were perhaps extreme examples of alienation of a population from state authorities and, unsurprisingly, the levels of insecurity and violence there had been extremely high (see, e.g., Carver, 1992). The same broad process may be occurring in European cities, where the conditions are ripe in areas with high unemployment or concentrated poor immigrant groups that may feel alienated from the larger society. However, that type of alienation can carry over to ordinary, adult organized crime, where a whole ethnic group like the Chechens in Russia is both stigmatized and identifies by the larger society with organized crime (see Lieven, 1998) A power vacuum can also be created by *revolutions, wars, and major political change*. With the previous political authority and institutions gone and new effective ones typically taking time to develop, there can be long periods of time during which people can face basic physical insecurity in addition to more complex problems of uncertainty and insecurity of contract enforcement. It is perhaps then no accident that the Sicilian Mafia grew significantly during the years immediately following the unification of Italy in an area that was previously under authoritarian rule for many centuries and in which republican institutions were unfamiliar compared to other parts of Italy. For the former Soviet Union, it has been argued (Solnick, 1998) that the power vacuum preceded its break-up and was actually the precipitating cause of the break-up itself. Bureaucratic control weakened considerably over the years, with individual bureaucrats or coalitions of them seizing control of the organizational assets they were supposed to be managing. Actually, the word 'mafia' was used to describe the networks of corruption lurking inside regional and central ministries (Handelman, 1994). There appears to be some continuity in membership in these old Soviet-era mafias and the mafias and gangs of the post-Soviet world. Thus far we have considered potential sources of State weakness that can contribute to the development of

organized crime. However, the State itself can create such conditions by effectively ceding control of contract enforcement through the *prohibition of production and distribution of certain goods and services*. Drugs, prostitution, alcohol, arms, gambling have been important areas of action for mafias and gangs. Exclusive government monopolies in the sale of salt, matches, or tobacco in the past have also invited smuggling and protection by organized crime groups. More recently, human trafficking across international borders has become a lucrative business for many organized groups. The distribution of nuclear material or even of nuclear weapons by such groups could not be ruled in the present or future. When the production and sale of a good or a service is prohibited, and there is reasonable demand at high prices as there is for drugs, some demand is bound to be filled at high prices. Along the supply chain from primary producer to final consumer, however, there are a host of contractual enforcement and financing problems that have to be solved without recourse to the police, the legal system, or to mainstream financial institutions. That is, with prohibition private parties cannot write and enforce contracts through the normal legal channels, and thus an effective power vacuum is created around the production, distribution, and financing of the prohibited commodity and its inputs. Cocaine is an example of a prohibited commodity for which there is a multiplicity and variety of contractual enforcement problems that exist along its supply chain (see Clawson and Lee, 1998). These problems cannot be solved realistically through each individual agent along this chain just taking their own defensive and private enforcement measures. The conditions cry for an ultimate enforcer, a "hegemon," at least over substantial parts of the supply chain. The reasons for such an arrangement are similar to those that make states have the notional, if not always the de facto, monopoly of enforcement within their territories. For now, we could compactly characterize the rationale for a single enforcer within a certain area as being due to "increasing returns" in enforcement. We would like to stress at this point that drugs or any other economic activity of organized crime cannot exist without providing protection and enforcement, whereas organized crime groups can exist solely by providing protection and not engaging in other activities. This is similar to the customary Weberian definition of the state as the monopolist in the use of force, despite the fact that states do a lot more than providing internal and external security.

3. Internal organization

Organized crime groups are typically hierarchically organizations. Whereas some youth gangs, like Chicano gangs in East Los Angeles have a flat organizational structure with leadership that is only informally recognized, others, like many New York gangs, have a formal hierarchical structure with considerable differentiation of duties among its members (Jankowski, 1991, Ch.3). The Sicilian Mafia is hierarchically organized and that is recognized to be so through formal procedures (Gambetta, 1993, Ch.5). Although precise knowledge of the internal functions of most organized groups is hard to come by, Levitt and Venkatesh (2000) were able to obtain detailed information on the organization and finances of a Chicago drug-selling gang. According to Levitt and Venkatesh, there was a core group at the top of the organization concerned

with long-term strategy and for maintaining a relationship with drug suppliers and other affiliates. At the next level of the hierarchy are local leaders who hire an enforcer, a treasurer and a runner whose job is to run risky tasks. The enforcers recruit foot soldiers (between twenty five and seventy five who serve as street-level drug sellers. The functioning of the organization is similar to that of a franchised company. The local leaders receives drug supplies through the central leadership, and pay a fee and receive protection against law enforcement and rival gangster the central leaders obtain drug supplies from the central leadership. Since, as argued in the previous section, mafias and gangs emerge out of a power vacuum to provide protection, why don't those who need the protection band together as equals in a "social contract" and provide the needed protection themselves? Why do they have to pay up a mafioso who may actually artificially create his own demand and extort more than it would cost each one in the group of equals if they were to band together? In principle, for example, the shopkeepers and residents within a few city blocks could agree to form community policing groups against common crime. They could create patrols of residents and shopkeepers. Whereas this practice could occur in certain cases, too often the mafias prevail. Forming such self-governing protection groups involves substantial coordination costs and as group size increases the free-rider problem becomes more serious. These problems can be overcome with a small enough group of residents and shopkeepers who know one another. However, the main problem in such groups forming and surviving appears to be the presence of powerful mafias around that are looking to expand their protection rents as well as their other business. It is one thing to have community policing against common theft. It is an entirely different matter to have the same residents and shopkeepers to go into battle against the heavily armed deputies of Al Capone. Thus, residents and shopkeepers succumb. They pay up, and smile, wave, and chat to their local protector. They are the only one they have and they'd better keep them happy. For someone to become a member of such an organization, it will be necessary to have at least once applied force decisively against opponents or, as it can happen with youth gangs, against members of the organization itself. That is, mafiosi and gang members need to demonstrate the ability to use force and have sufficient ruthlessness in using it. Naturally, then, members of organized crime groups tend to be recruited from those who have a certain comparative advantage in violence. (Levitt and Venkatesh, 2000, report an annual death rate in their data sample of 7%, a number which is shockingly high.) Once someone is within the organization, however, it is unclear whether greater capacity and predisposition for violence can help much more for advancement within the hierarchy. Other skills become important at the higher echelons: the ability to plan and execute tasks, sophisticated political and administrative skills, or how well you can motivate those who work for you. These are skills that are necessary in any other organization. As with ordinary organizations, motivating the employees is a critical determinant of an organization's success. Inculcating loyalty and pride in work is a concern of virtually all organizations. Abiding by norms and informal constraints reduces infighting and other transaction costs within the organization. (Part of the discussion that follows also draws from Skaperdas and Syropoulos, 1995).

It is likewise with gangs and mafias, as they appear to develop and articulate cultures and ideologies, systems of beliefs about the world that have a certain internal logic that, at least outwardly, all its members appear to subscribe. A core element of the ideology of many American youth gangs (Jankowski, 1991, Ch.3) is that American society systematically discriminates against their kind. Nearly all gangs believe that their ethnic group has been denied access to conventional opportunities that would allow them to live better lives. Their members subscribe to a social Darwinist perspective according to which predatory behavior is how one gets ahead everywhere in society. The gang, then, contributes to the advancement of its members and their ethnic group, just as the more powerful networks contribute to the welfare of their own members in the larger society. With such a worldview, the activities of the gang that are considered reprehensible in the mainstream are thus rationalized by gang members. The poverty of their surroundings and the hostility of media and authorities help reinforce such beliefs. The main job of the mafioso is not much different from that of the feudal knight: he provides protection or, to put it more respectfully, security. In rural Sicily the mafioso used to perform straightforward intermediary and judicial functions that were conferring legitimacy from the community. It is therefore not surprising that the traditional Sicilian mafioso's self image even in cases of acts of extreme brutality was that of a "sacrifice which he makes for the benefit of the public weal" (Hess, 1973, p. 68) – like killing in times of war, it's a dirty job but it has to be done for the overall benefit. Similarly, whether out of genuine conviction, guilt, or narrow self-interest, many major organized crime figures have also been involved in charity and public service. The leader of the Shanghai Green Gang, Du Yuesheng, became a major community leader and philanthropist (Martin, 1996). Pablo Escobar (of the Colombian Medellin cartel) and his associates donated several hundred new homes to poor slum dwellers of Medellin and constructed some eighty illuminated sports arenas in the area. Articles in the local newspaper – directed by Escobar's uncle – contrasted Escobar's public spirit with the indifference of other businessmen and of the Colombian political establishment at large (Clawson and Lee, 1998, p. 48). Genuine propaganda or not, the outward projection of the provider-of-public-good image is often an important component of organizations that have matured enough to compete with the state itself. In the case of Escobar the gambit did not succeed as he was killed in a highly-publicized government raid – perhaps he should have been as conciliatory with the Colombian state as he was with the Medellin area. For the Sicilian Mafia, however, the adaptation of seeing itself as a public servant worked reasonably well for more than a century.

4. Market structure: two types of competition

Since organized crime yields profits both from protection activities and from the production and distribution of goods and services, we could expect potential new entrants who would attempt to gain a slice of the business from existing groups. New entrants could be deterred by existing groups in two broad ways. One is the regular way, available to legitimate business firms, of lowering price, enhancing quality and other measures that could keep existing and new customers happy. Organized crime groups, however, have

another way of competing with one another that is not typically available to ordinary business firms: They can “knee-cap” – or mete out worse punishments than that to -- customers and competitors alike, so as they can compel them to do what they want them to do, without having to change price or quality. We discuss these two types of competition next. For the first type of competition, the organized crime group can be thought of as providing protection to customers – say shopkeepers in their area -- against crime in exchange for a fee. (For models of this type of competition, see Grossman, 1995, and Dixit, 2004.) The protection service provided can vary in terms of quantity and quality: how often the group checks on the shop, how much knowledge (“intelligence”) they have of the local potential thieves, what other measures they undertake to prevent theft, what they do in terms of restitution to the victim if theft were to take place, and so on. The higher the level of the protection service, the higher the cost to the organized groups can be expected to be. Then, a group that tries to maximize profits would like to receive the highest possible fee from a shopkeeper for delivering service while incurring minimum cost. An organized crime group – according to this approach -- could be considered as offering packages of protection services that come with different prices or fees, one of which could be accepted by the shopkeeper. When the organized group has a monopoly in the area, it offers a protection service-price package that maximizes its own profit subject to the condition that is just (barely) acceptable to the shopkeeper. That is, a monopolistic group would receive almost all the surplus from providing the protection service to the shopkeeper. If we were to include more than one shopkeeper, the monopolistic organized crime group could either offer one level of service at a given price to all shopkeepers with some of them accepting the package and others not, or it could price-discriminate and offer dedicated packages to each shopkeeper that is just accepted by every shopkeeper. In either case, according to standard economic theory either outcome would be economically inefficient, because in the first case the price is too high and the level of protection too low whereas in the second case different customers face different prices. If, however, a competitor were to enter the “market” for protection services, the original monopolist would be forced to reduce price and increase the level of protection services offered (see Grossman, 1995, for the particular mechanics) and thus increase economic efficiency. As with other similar economic models of competition, the greater the number of competitors, the higher is the level of efficiency. The shopkeepers would need to pay less and the protection services they would receive would be higher, the higher is the number of organized crime groups competing for providing the service. The type of model just outlined fits well the private security services industry, an industry that has expanded significantly in the US and elsewhere over the past two decades. Applying the same model, though, to organized crime involves the adoption of at least two assumptions that are empirically difficult to fulfill. The first assumption is that organized crime groups cannot take extra-legal measures like creating their own demand for protection services. Ordinary security firms do not typically go threatening their potential customers with burning down their shop if they do not buy protection services from them. Mafiosi can, and are known

to make, such threats and sometimes carry them through. A shopkeeper can take a legitimate security firm to court for making such threats and the firm will have to pay lawyer’s bills and possibly face sanctions as a result. A shopkeeper could theoretically take a mafioso to court but the mafioso has additional extra-legal means to respond: ransacking the shop, burning it down, physically threatening the shopkeeper and his family. The second assumption of the model outlined above is that competitors cannot take extra-legal measures against one another so as to prevent competition. Organized groups, however, typically try to keep one another out of their respective turfs. Some famous movie films have been made out of mafia wars, but such turf battles are real and central to the survival and profitability of organized crime groups. With organized crime groups having a typically geographically non-overlapping potential clientele, the price and service competition we have outlined above effectively could not take place. That leads us to the second type of competition that is possible among organized crime groups, and it is precisely the one that involves competition for turf, an area within which a group has a near-monopoly in the use of force. This type of resembles more the competition among the lords, kings, and emperors that had been taking place for most of human history since the agricultural revolution. It takes the form of an arms race with your neighbors. If you have a large enough army you can deter your neighbors or take some of their turf; if not, you lose turf or you can be taken over completely. The market structure that could best describe organized crime, then, is a curious sort of monopolistic competition, whereby each gang has the local monopoly of protection within a certain area and this local monopoly is maintained by the gang’s capability of mobilizing and using force against other gangs. The absence of alternative providers of protection locally implies that the gang can use its enforcement powers internally to extract a price for its protection that is not just at its monopoly level but is extortionist – the gang can name its price and its quantity especially if the gang’s time horizon is short or the area’s population does not have the resources to move in areas without gangs. With profit maximization and free entry, in the long run we should expect the profits of gangs and mafias to be reduced to those available elsewhere in the economy. Does the greater competition that comes with free entry and the absence of excess profits imply a better economic outcome though, as it does in the case of the first type of competition? The answer is different here. Remember that competition takes place through resources devoted to fighting that then become unavailable for production. Therefore, greater competition implies that more resources are used on fighting and fewer are used in production. Hence greater competition in the protection business reduces total production and efficiency^[2]. If cooperation or consolidation among gangs could occur, economic efficiency would in principle be enhanced as fewer resources could be devoted to predation. However, it is doubtful how much of the saving in costs would be passed down to the community in the areas controlled by the cooperating gangs. And, as the institutional safeguards for cooperation are weak – often based on personalized leadership that breaks down when a leader disappears from the scene – there is an inherent unpredictability and instability in the world of organized crime.

5. Some economic consequences

We have just discussed some of the effects of competition among organized crime groups. Whereas for the first type of competition, more competition induces lower economic costs (or, higher efficiency), the second type of competition induces greater economic costs when there is more of it. It is important to be clear analytically about the type of inefficiency that is identified in that second type of competition, and as we have argued more empirically relevant one for organized crime. It is not the allocative

² For models of this type of competition, see Konrad and Skaperdas (2006) and Skaperdas (2001).

Inefficiency that exists because of the suboptimal, but productive, employment of factors of production, although that can occur too. What has been discussed is the unproductive employment of economic resources that could be used elsewhere for directly productive purposes, in what has been variously labeled “appropriative,” “redistributive,” “conflictual,” or “predatory” activities. Gang and mafia members spend their time making their presence felt in the neighborhood, defending against one another, and preparing to fight one another. Guns, locks, and steel bars also fall into this category of activities. They can be considered to contribute to security in an indirect way, but the same amount of security is compatible with many different levels of expenditures on such appropriative activities. Intense competition of many gangs can involve the expenditure of a lot more resources than complete hegemonic domination by one large mafia, and which in turn can involve the expenditure of a lot more resources than those of a modern state with an effective police and judicial system. Although the loss of efficiency due to appropriation in areas with organized crime can be substantial, the spillover effects organized crime has on regular economic activity can be even higher. Legal businesses that have to pay for protection face higher costs of operation, invest less and bias the investments they make against anything that can be easily destroyed (Konrad and Skaperdas, 1998). For the same businesses, regular contracting through the mainstream legal system can become difficult even if it concerns perfectly legal matters, since the mafia can intentionally and actively discourage recourse to the legal system as it represents a challenge to its authority and a reduction to the rationale for its existence. There can be substitute contracting and other informal constraints, of course, as the mafia provides protection after all and has substantial enforcement powers within its area. In fact, the mafia could enforce contracts more effectively than the state can because it can impose penalties that are much more severe; for example, physical punishment and even death. However, the arbitrariness that typically accompanies such penalties and the multitude of uncertainties that surround contract fulfillment in a mafia’s territory are unlikely to be outweighed by the severity of penalties the mafia can impose. As a result of the multiple uncertainties and incomplete information that exists, violence, destruction of property, and death are more likely to occur in organized crime territory ^[3]. The long-term effects of organized crime could be even more devastating than its immediate, static effects. The area’s most able, entrepreneurial, and responsible youth can choose to become mafiosi and gangbangers, as Jankowski (1991, Ch.4) argues to be the case in American inner cities. Those are precisely the individuals who under different

circumstances would provide very different types of community support and leadership. Once human beings develop human capital expertise in one area, it is very costly for them to change later in life. Former guerillas, demobilized soldiers after wars, and gang members have difficulties adapting to conventional lives and occupations later in life. Many find brigandage, robbery, or reversion to organized crime a familiar and more profitable lifestyle than its alternatives. Even after the destruction of organized crime in an area, it can take more than a generation before normalcy prevails. In summary, the costs of organized crime include the resources expended on appropriation and predation, instead of production; various more conventional productive and investment distortions; the contractual problems that develop outside the realm of modern governance; and the incentives for the development of human skills that are biased towards appropriation instead of towards production. Potential criminals, like any individuals, can be considered as rational as in any other economics setting. They compare the benefits with the expected costs of committing a crime. Then, a society can deter crime by making illegitimate activities costlier. To achieve this, a society typically increases the probability of crime detection and the severity of associated punishment which results in an increase in the cost associated with crime. An organized crime group is able to coordinate all its members’ activities and, as a consequence, crimes committed by them become difficult to detect ^[4]. They are also able to protect their members against potential punishment by bribing government officials,

³ Bester and Warneryd (2006) show how open conflict can be an equilibrium phenomenon in a model with appropriation, whereas Garoupa (2000) and Konrad and Skaperdas (1997) show how violence is possible as a result of credibility problems in the business of organized crime.

⁴ See Garoupa (2007) for intra-organizational view of organized cri

Threatening potential witnesses, and, in some cases, employing violence against judges and magistrates. The top echelon members of organized crime groups are further removed from direct crime and thus enjoy virtual immunity from the negative consequences of crimes they perpetrate. Not surprisingly, there have been only a few successful campaigns in the past against organized crime groups. In the US, the Racketeer Influenced and Corrupt Organization act or RICO as is commonly know has been the most effective tool against crimes committed by organized crime groups. The act lists various activities (such as extortion, bribery, loan sharking, illegal drug sales, prostitution, or murder), relaxes the definition of conspiracy, and provides penalties for criminal acts performed as a part of an ongoing criminal organization. The act focuses on the patterns of criminal acts as opposed to individual crimes. Thus, under RICO, the head of a crime organization can be prosecuted even if he has never been personally engaged in any criminal activity. The punishments under RICO can be exceptionally harsh. Apart from a long prison sentence, a convicted person forfeits all interests and claims over the criminal enterprise, as well as over the property that constitutes the racketeering activity or what was obtained from the racketeering activity. Further, RICO allows the victims of organized crime to recover from the convicted person in civil court. The RICO is designed, first to make detection of criminal enterprises easier and ultimately to cripple and eradicate organized

crime enterprises.

6. Concluding remarks

Despite all the technological improvements, economic growth, and expansion of the scope of governments over the past two centuries, organized crime is present even in the richest of countries. Evidently there are still cracks in the power of modern states that are created not just by the prohibition of commodities like drugs but also by cleavages of ethnicity, race, and class that modern societies still have. As long as these cracks exist that create local power vacuums, organized crime will continue to emerge to fill them. Well-publicized attempts to dislodge or eliminate organized crime are not likely to be successful unless they address the forces that create those vacuums of power.

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