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Free riders: the economics and organization of outlaw motorcycle gangs

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Abstract This paper investigates the organizational structure of the Hells Angels Motorcycle Club, one of the largest and best known North American motorcycle gangs. Within the first few decades since their establishment, the Angels developed a hierarchical organizational form, which allowed them to overcome internal conflict and exploit the gains from their involvement in criminal activities. This organizational form, I argue, played a central role in the rapid success of the Angels in the North American (and international) criminal landscape.

Keywords Outlaw motorcycle gangs · Hells Angels · Organized crime

1 Introduction

On August 9, 1995, the 11-year-old Daniel Desrochers was playing in the street with a friend in Montreal's outskirts, when he was severely injured by the explosion of a bomb. Daniel would die a few days later as consequence of his injuries (Cherry 2005, p. 82), making him one of the two civilians to lose their lives[1] out of more than 60 victims of the Canadian biker war of the 1990s. The war started when a local street gang, the Rock Machine, responded with violence to the attempt of the Hells Angels Motorcycle Club (HAMC)[2] to penetrate its territory.

[1] The first victim, Marc Dub, was killed immediately by the explosion.

[2] Below, I refer to the Hells Angels as "Angels", "HAMC", or simply "the club".

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By the end of the 1990s, the Angels had become one of the major criminal organizations operating in Quebec. From Vancouver, their center of operations in Canada, the Angels deal in narcotics (in particular, the distribution of crack cocaine from Latin America, which they then smuggle into the United States with the advantage of not having to deal with the stricter American controls at the Mexican border), smuggling, and prostitution (The Economist 1998).

Canada is far from the only country in which the Angels have emerged as a major presence in the underworld economy. The Angels are today an international criminal organization with a presence in dozens of countries and play a major role in the market for narcotics in Australia, Canada, The Netherlands, Sweden and the United States (Barker 2010, 2011; Lauchs et al. 2015), with a revenue stream valued at billions of dollars (The Economist 1998).

Since their establishment in the middle of the last century, outlaw motorcycle gangs (OMGs) have evolved from small clubs for social outcasts and petty criminals with a passion for US made bikes —"American iron"— to hierarchically organized international organized criminal groups involved in a variety of illicit activities, most prominently the production and distribution of narcotics.[3]

American law enforcement agencies characterize the Angels and other major OMGs[4] as among the most dangerous criminal organizations in the United States. Richardson (1991, p. 2) describes OMGs as "sophisticated criminal organizations who utilize their affiliation with a motorcycle club as a conduit for criminal activity." According to the National Gang Intelligence Center (NGIC), American OMGs are involved in a wide variety of criminal activities and are characterized by "[their] propensity to use violence […] and ability to counter law enforcement efforts", thus constituting a "serious national domestic threat" (NGIC 2009, p. 8).

NGIC (2013) compares OMGs to other major gang-types in the United States: street and prison gangs. Street gangs comprise the single largest subset of the total American gang population, the memberships of which are estimated as being between 1.5 and 2 million. Eighty-eight percent of all gang members in the United States belong to some local or national street gang. Prison gangs constitute the second largest group, with 9.5%. Finally, OMGs comprise only 2.5% of the total gang population. Not surprisingly, street gangs are also indicated as the most significant threat to public order in the largest number of US jurisdictions (80%). What is surprising is OMGs' effectiveness: notwithstanding their relatively small sizes, motorcycle gangs are indicated as the most violent gang organization and most significant threat in 11% of all jurisdictions (NGIC 2013, p. 19). Compare this to prison gangs, which are identified as the major threat in "just" 9% of all jurisdictions.

Despite their prominence in the North American and international criminal world, so far economists have ignored completely the motorcycle gang phenomenon. This paper contributes to the growing literature on the economics of organized crime. The economic approach defines organized crime as "[the] long term arrangement between multiple criminals that requires coordination and involves agreements that […] cannot be enforced by the state" (Leeson 2007, p. 1052).[5] This work was pioneered by Schelling (1971) and

[3] In its report on organized crime to the California legislature, the California Bureau of Investigation and Intelligence, writes that "once perceived as groups of troublemakers and social rebels, [OMGs] evolved through the years into sophisticated criminal organizations" (CDOJ 2008, p. 14).

[4] In the academic literature on outlaw bikers, these organizations are alternatively referred to as OMGs, Outlaw Motorcycle Clubs (the preferred phrasing by OMGs themselves), and "One-Percenters".

[5] Varese (2010) defines Organized Crime Groups (OCGs) as the result of "attempts to regulate and control the production and distribution of a given commodity or service unlawfully" (Varese 2010, 14). Varese also introduces a distinction between organized crime groups and what he refers to as Mafia groups, that is, "a type of OCG that attempts to control the supply of protection" (Varese 2010, 17).

Buchanan (1973), who provide an analysis of the industrial organization and welfare implications of organized crime. More recently, the literature has assumed a more empirical character. Gambetta (1996) studies the origins and economic organization of the Sicilian mafia and Varese (2001) uses a similar framework to account for the rise of the Russian Mafia in the aftermath of Soviet Communism. Levitt and Venkatesh (2000) study the internal functioning of an American street gang involved in the distribution of drugs. Leeson (2007, 2009, 2010a, b, 2014) provides a theory of the organization and practices of 18th-century pirates. Sobel and Osoba (2009) argue that street gangs function as protection agencies for the youth in such violent environments as the inner-city of Los Angeles. Skarbek (2010, 2011, 2012) applies a similar framework to the study of two American prison gangs: the Mexican Mafia and La Nuestra Familia.

In many respects, the HAMC faces the same obstacles in organizing its criminal activities effectively as other criminal enterprises. First, they cannot rely on formal institutions for the enforcement of their contractual relationship with other firms (criminal or not) and their own members. Second, they face the risk of infiltration by law enforcement agencies' officers. Therefore, their organizational structures can be seen as a response to these obstacles, as well as to the underlying market conditions and institutional environments in which they operate.[6]

The purpose of this paper is to apply economic theory to explain the institutional arrangements governing American OMGs. These arrangements are explained as the efficient response of the groups to changing economic circumstances in the 1960s and 1970s. Their response allowed the OMGs to capture economic profits while at the same time reducing the risk of opportunistic behavior by their own members. To do so, I focus on the Hells Angels Motorcycle Club. This focus is justified by two considerations. First, historically the Angels occupied a central position in the public perception of OMGs in general. That has produced an array of information about its inner functioning and illicit activities not available for any other OMGs. Second, most major OMGs have adopted the HAMC's organizational structure and by-laws (Barger et al. 2001; Richardson 1991), making the arguments of this paper applicable to the study of them as well.

As is often the case in the study of organized crime, the evidence is scant, hard to interpret, and potentially biased. For obvious reasons, neither OMGs nor law enforcement agencies are willing unilaterally to share their information. Furthermore, the little information provided must be discounted as OMGs' internal sources might try to under-emphasize their involvement in criminal activities and mislead the reader about their hierarchical structures. Similarly, law enforcers have an incentive to over-emphasize the pervasiveness of illicit behavior in the attempt to convince public officials to increase their budgets (Sobel and Osoba 2009, p. 999). With these considerations in mind, I use evidence from a variety of sources, including former members of the HAMCs (Barger et al. 2001), state and federal enforcement agencies (NGIC 2009, 2011, 2013, 2015; CDOJ 2008, 2009; Richardson 1991; McGuire 1987; Davis 1982a, b), undercover agents' memoirs (Dobyns and Johnson-Shelton 2010) and criminology scholars (Barker 2010, 2012; Veno and Gannon 2009; Quinn 2001) to argue that the success of the Angels and other OMGs[7] must

[6] OMGs are also very peculiar criminal organizations in that, unlike prison gangs, they do not operate within a small, well-defined space like a correctional facility, and, unlike the mafia, they are not based on a kinship group.

[7] The academic literature identifies alternatively four, five, and even six major North American OMGs (Barker 2005, 2007, 2010; Veno and Gannon 2009; Quinn 2001). Other than the Angels, lists usually include the Outlaws Motorcycle Club (MC), the Pagans MC, the Bandidos MC, the Sons of Silence MC, and the Mongols MC.

be attributed to the set of institutions they adopted in the decades following their establishment.

My argument is organized as follows. In Sect. 2, I present a brief sketch of the history and evolution of the HAMC in the 20th century. In Sect. 3, I elaborate a model of the "free riders' problem". In this model, under a set of specified circumstances, a group of independent OMGs coordinates to establish a hierarchical structure to enforce a collusive agreement that generates an increase in their revenues from illicit activities. Section 4 derives the predictions of the model and provides empirical evidence in their support. Section 5 briefly concludes.

2 The evolution of the HAMC

The HAMC was founded in the city of San Bernardino, California, in 1948 by a group of World War II veterans. Formerly, the founding members had been part of another motorcycle club, the Pissed Off Bastards of Bloomington (POBOBs), which had been dismantled in the aftermath of the first national meeting of the American Motorcyclist Association (AMA)[8] in Hollister, California, a year before. During the AMA meeting, some POBOBs attracted the attention of the local police and, most importantly, of the national press by drinking in public, damaging private property, and getting into fights with other motorcyclists (Barker 2010, pp. 28, 34). In the next few decades, more and more clubs like the HAMCs were established throughout California and across the nation (Barger et al. 2001, p. 35). These clubs differed radically from mainstream motorcycle clubs. The latter were mere recreational groups for middle-class white men and women, which often were chapters of the AMA. The former, on the other hand, were known as "outlaw" or "One-Percent" motorcycle clubs (Richardson 1991). Originally, the labels of "Outlaw" and "One-Percenters" referred merely to these clubs' outrageous behavior and disrespect for the law, in contrast to the other 99% of mainstream bikers (Lauchs et al. 2015, p. 13).

Most of the first generation of OMC members were World War II veterans. According to one OMGs scholar, these veterans were attracted by "a saloon lifestyle centered around motorcycles. Positive views of military experiences and the intense camaraderie they bred, also made such a lifestyle attractive" (Quinn 2001, p. 388). Back from the battlefields in Europe and the Pacific, these lower middle class white men found the values and opportunities offered by mainstream society unappealing (Veno and Gannon 2009) and were "alienated enough to exalt in their outlaw status and fearless enough to defend that status against all challenges" (Quinn and Forsyth 2011, p. 216). "Conventional activities offered no acceptable alternatives and these men were threatened with loss of identity, companionship, and security as military involvement ceased" (Quinn 2001, p. 388). These individuals had little human capital and few skills, a heterodox lifestyle (Quinn and Shane Koch 2003), and an impulsive temperament, a legacy of their experiences overseas. For those reasons, these individuals "had little hope of succeeding in society in terms of living up to societal expectations" (Davis 1982b, p. 19). Thus, they opted to operate within a parallel "saloon society" or subculture.[9]

[8] The AMA is the largest association of the kind in the United States.

[9] The saloon society "traditionally consisted of places where patrons and employees tended to be armed, and no one wanted to involve the police, regardless of what occurred…. Most topless and nude bars are part of this milieu, or at least on its fringes. So are many white, blue-collar taverns and fancy nightclubs. Crimes ranging from drug sales and prostitution to murder and extortion are endemic here, although their expression may be subtle or blatant" (Quinn and Forsyth 2009, pp. 12–13).

In the two decades following the Second World War, OMGs emerged to provide socially marginalized individuals with a variety of club goods, including a sense of psychological fulfillment, mutual economic and social support, and, most importantly, protection against aggression and other threats within the context of the saloon society (Veno and Gannon 2009; Quinn 2001). Belonging to an OMG also meant having access to the underground economy of the criminal world: "[the] saloon society was the launching pad from which many outlaw bikers entered the more sophisticated underworld of organized crime. Drug distribution, extortion, prostitution, and theft rings" (Quinn and Forsyth 2009, p. 4). During those "formative years", OMGs appeared as a multitude of small, locally focused and independent groups.

The 1960s were a decade of sudden growth of the underground economy. Drug consumption (especially that of marijuana, but also hallucinogens like LSD and methamphetamine) grew manifold (SAMHSA 2003, pp. 44–47). It is in those years that the Angels became more and more involved in illicit activities (Barker 2005; Lauchs et al. 2015). Originally, like other OMGs, the Angels were perceived as a "headache for local enforcement agencies" (McGuire 1987, p. 11). By the 1970s, this involvement had changed dramatically. First came the "deepening of the gang involvement in narcotics" (Davis 1982a, p. 13) and with organized crime in general (Quinn 2001). Multiple members of the Oakland, California, chapter were involved in the market for narcotics by the 1960s. Barger himself was involved in the distribution of heroin (Barger et al. 2001, p. 81), while two other members were among the major suppliers of LSD in Northern California (CDOJ 2008; Barker 2007; Barger et al. 2001).

In the same years, the Angels had reached unprecedented and still unparalleled popularity with the American public. Articles and books about the club became bestsellers and the Angels served as the inspiration for movies and other works of nonfiction (Barker 2010, pp. 32–33).[10] Soon, the "Colors" of the Hells Angels became a recognizable symbol for a heterodox lifestyle, deviancy, and motorcycles. The HAMC colors consist of three parts: the top rocker, the symbol, and the bottom rocker. The top rocker consists of the inscription "Hells Angels", and identifies the biker as a "patched" (that is, full) member of the club, while the bottom rocker identifies the local chapter to which the biker belongs. In between the top and bottom rocker is the "Deaths Head" [sic]—the symbol of the HAMC, a winged helmet on a white skull. The biker wears the colors on his leather or denim jacket, as well as on his skin in the form of a tattoo (Lauchs et al. 2015, p. 55).

Today, the HAMC is at the center of a global criminal network that includes its own national and international chapters, American street gangs, the American Mafia, the Russian Mafia, and Latin American drug cartels (Barker 2007, p. 122).[11] By the 1990s, the HAMC had taken control of the prostitution markets in the areas under the control of its local chapters on the East coast, and that for the production and distribution of methamphetamine on the West coast (Richardson 1991, p. 16). According to the Department of Justice, the 215 Californian members of the HAMC had faced charges for over 2000 criminal activities, including the production and distribution of narcotics (Richardson

[10] See also Barger et al. (2001).

[11] According to the NGIC, "Motorcycle Gangs have evolved over the past 67 years from bar room brawlers to sophisticated criminals. OMGs, which were formed in the United States, over the last 50 years have spread internationally and today… are a global phenomenon. The Hells Angels in particular stands out for its international connectivity" (NGIC 2015, p. 22).

1991, p. 14).[12] With growing involvement in the underground economy, the size of the club adjusted accordingly. The number of US local chapters passed from five in 1958 to 33 plus 12 international ones in 1986, to 64 nationally and 183 internationally in 2011 (McGuire 1987; NGIC 2011).[13] Similarly, membership grew from the few dozens of 1958 (entirely concentrated in California) to 500–600 members in 1986, to more than 800 members (spread across 22 states and 27 countries (Quinn and Forsyth 2009).

In order to take advantage of the expanding profit opportunities in these illicit markets, the HAMC organized hierarchically at the national and international levels (Fig. 1), with the Oakland "mother" chapter at the top of this hierarchy, the local chapters at the bottom, and elective bodies—the regional executive boards—in between (Barker 2010; McGuire 1987). Although hierarchically organized, the HAMC is not an economic firm *strictu* sensu.[14] The head of the organization does not direct production in any sense, nor is each member's action aimed at the achievement of a centrally set goal. Nonetheless, the Angels constitute an organization in which different members have different and well specified rights and responsibilities, and a clear boundary between members and non-members is in place.

As the head of the organization, the Oakland chapter is the club's public face. Its main functions are the leadership of the club and the preservation of the Angels' status through the enforcement of its bylaws and regulations (NGIC 2009; Quinn and Shane Koch 2003, p. 290). For the implementation of its decisions, when necessary, the Oakland chapter relies on an "elite subgroup", which is sometimes referred to as the "filthy few" (Lauchs et al. 2015, p. 3). According to the law-enforcement forces cited in Quinn and Shane Koch (2003, p. 291), "[the subgroup's] main responsibilities are lethal".[15]

Under the umbrella of the Oakland chapter, and within the limits specified by the rules of the organization, local chapters have a large degree of independence. Local chapters specialize in the illicit activities that better fit the landscape within which they operate.[16] Local chapters also are responsible for the policing of their territories from the penetration of other criminal organizations and rival OMGs in particular. The only other bikers allowed to operate within the Angels' territory are the so-called "puppet clubs" (Lauchs et al. 2015, p. 30). Puppet clubs formally are independent groups that serve the interests of major OMGs by undertaking illicit activities (thus insulating the latter from the attention of law enforcement agencies).[17]

The transformation experienced by the Angels in the decades after WWII was a response to the new challenges of a quickly expanding presence in the underground economy. First, expansions in the sizes and activities of the HAMC required a new

[12] In their analysis of more than 600 newspaper articles mentioning one or more of the four largest North American OMGs between the years 1980 and 2005, Barker and Human (2009, p. 177) find strong evidence of the HAMC's involvement in criminal activities. During this period, the Angels had been involved in at least ten criminal incidents pertaining to the market for narcotics in the United States (including the production and distribution of methamphetamine and the distribution of cocaine), three episodes in Canada, and three episodes in Australia.

[13] The first international chapter of the HAMC was established in 1961 in Auckland, Australia. The Australian HAMC is today one of the largest organized criminal groups in the country (Barker 2007, 2011; Lauchs et al. 2015).

[14] See Holmstrom and Roberts (1998) and Barzel (1997) on the problem of identifying the nature and.

[15] See also Barker (2010, p. 112).

[16] "Individual chapters' presidents usually run the day-to-day operations of their chapters, [with] important decisions made at regional, national, and international levels" (Barker 2010, p. 91).

[17] See NGIC (2009, p. 8) and Barker (2005, p. 111).

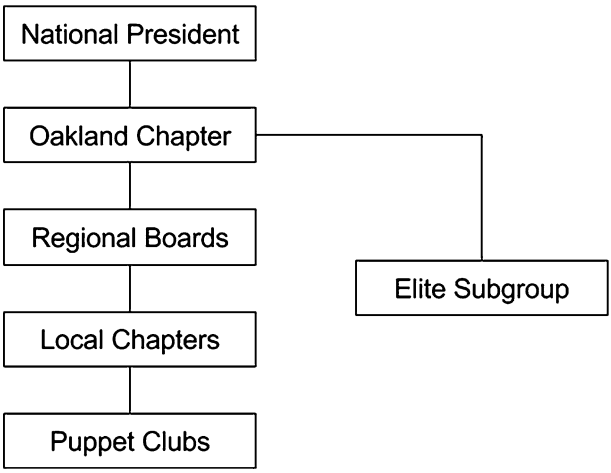

Fig. 1 HAMC's national structure

governance structure. Second, HAMC had to face competition from other OMGs and organized crime groups for the control of criminal markets. Finally, the Angels had to prevent the growing attention of national and state-level law enforcement agencies from jeopardizing the very survival of their organization.

3 The free riders' problem

3.1 Why criminals organize

Economics treats criminals as rational actors (Becker 1968). Thus, criminals organize for the same reasons non-criminals do. Since the pioneering work of Coase (1937), economists have discussed the fundamental determinants of the formation, boundaries, and structures of economic organizations. Although a complete survey of the economics of organization is beyond the scope of this paper,[18] for the purpose of my argument it suffices to say that all the different approaches to this puzzle share a common starting point: positive transaction costs. If it were not for transaction costs, defined as the costs of creating and enforcing property rights (Allen 1999), there would be no need for the central organization of economic activities. All goods and services simply would be exchanged in spot markets. Because transaction costs are positive, contracts never can be fully complete, opening the door to the possibility of opportunistic behavior (Williamson 1985). In some circumstances, opportunism can be reduced by adopting a hierarchical organizational structure. If that is the case, an entrepreneur will find it in his or her interest to hire the services of the necessary inputs and appropriate the resulting profits (Alchian and Demsetz 1972).

When facing problems of opportunistic behavior (agency problems, asset specificity, shirking, and so forth) in the production of illicit goods and services, criminals similarly will rely on organizations. This framework explains, for example, the organization of 18th-century pirates. Effective piracy requires team production, and team production requires

[18] For surveys, see Hart (1989), Barzel (1997) and Williamson (2002).

the monitoring of individual effort and the enforcement of a set of standards. The captain of a pirate ship was delegated those functions and was compensated accordingly (Leeson 2007). Unlike agents operating in legitimate markets, criminals have one more reason to organize their activities: the access to violent means of generating monopoly rents in industries characterized by relatively high levels of contestability (Leeson and Rogers 2012). Contestability is lesser in those industries where entry costs are higher, for example, because a large investment in human or physical capital is necessary to operate in them (e.g., murder for hire). Other industries have relatively lower entry costs. In such industries, competitive forces will drive economic profits to zero unless some artificial obstacle is introduced. Criminals can do so by organizing themselves in a cartel-like fashion. Unlike in legitimate markets, the cartel can use violent means to deter entry, thus generating abnormal economic profits for its members. This simple intuition explains, for example, why criminals dealing in activities that do not require team production methods, such as the provision of protection (Gambetta 1996) and drug-dealing (Kostelnik and Skarbek 2013) are often organized hierarchically.

3.2 The free riders' problem

A more general version of the argument above would be that, in illicit markets, the possibility of generating rents by reducing overall competitiveness can explain the hierarchical structure of a criminal organization beyond that which is justified by team-production considerations alone.

To illustrate the logic of this argument, imagine the case of an imaginary motorcycle gang: The Free Riders MC. Initially, the Free Riders are little more than an informal association of groups (chapters) operating within the same territory. Each group is entirely independent of every other in the selection of the bundle of illicit activities to pursue, internal organizational structure, membership criteria and so forth. The Free Riders must also deal with the competition from other similar groups. Establishing a motorcycle gang is a relatively low-cost activity: all that is needed is a small collection of people, their bikes, and a headquarters. Under those circumstances, the value of each chapter's revenues is α at the end of every period.[19] The Free Riders could increase their revenues by reducing level competitiveness among themselves by negotiating a collusive agreement. Unfortunately, such a collusive agreement would be feasible only if mutual monitoring and punishment are both relatively cheap. More realistically, a large number of agents and imperfect information would drive monitoring costs up, opening the door to opportunistic behavior on the part of each chapter, thus making a collusive agreement infeasible. Even abstracting from these complications, collusion would not produce an increase in revenues if the industry is characterized by free entry.

Both problems could be solved if the Free Riders were able to organize themselves into a hierarchical structure and entitle the head of the organization, the mother chapter, with the powers to enforce the collusive agreement and exclude competitors from the market, perhaps using violent force. Under this new organizational structure, each chapter's revenues increase to the monopolistic value $\beta > \alpha$. This increase comes entirely from the reduction of competitiveness and not from economies of scale, as production continues to be left to the local chapters independently of the activities of mother chapter. While the adoption of a hierarchical form brings benefits, it does not come without cost. Each chapter must now contribute some share of its revenues, c, to finance the operations of the

[19] To simplify the discussion, I assume that size is constant across chapters.

overall organization. It follows that the new organizational structure will be adopted as long as the benefits of hierarchy exceed its costs: $\beta + \alpha > c$. Thus, the net benefits of adopting a hierarchical form will depend on the level of contestability faced by each local chapter as well as the expected revenues from their involvement in illicit activities. Of course, the organizational benefits of integration might go beyond the larger revenues expected from the reduction in market contestability. Organizations can adopt rules for the circulation of valuable information among its members and can rely on their brands to raise the expected gains from trade with third parties (Klein and Leffler 1981).

3.3 Ownership and control in the criminal firm

To maximize the benefits from integration, the Free Riders MC must minimize the possibility of opportunistic behavior on the part of its constituents. Each local chapter must both abide by the collusive agreement as well as to contribute to the organization's necessary expenses. Left to their own devices, each local chapter faces a strong incentive to increase its revenues and reduce its costs by free riding on the others' collusive behavior and contributions to organizational expenses. Therefore, the mother chapter is entrusted with its functions. But the mother chapter likewise can act opportunistically. Since enforcing the collusive agreement is costly, the mother chapter's profit-maximizing level of effort might be less than the one that maximizes the overall profits of the organization.

The Free Riders find themselves facing the classic paradox of joint effort: cooperation within the organization can be profitable for everyone, while at the same time making the action of more than one agent affect the profitability of the enterprise. A simple solution to this problem is to reallocate property rights within the organization in such a way that each agent internalizes the pecuniary externalities of his or her actions. That consideration explains why modern corporations are so often characterized by the separation of management from control (ownership) rights (Fama and Jensen 1983). In order to take advantage of specialization in the use of local knowledge, expertise, and risk-bearing, an open corporation must extend residual claimancy to a wide variety of individuals. This, in turn, increases the decision-making costs of undertaking new projects. Separating control rights from management mitigates the possibility of opportunism while also allowing for specialization in the use of information and risk-bearing. Under such a scheme, managers are entrusted with the authority to initiate investment projects. Projects are then ratified by the owners who exercise control rights. Once the project has been green-lighted, management implements, while the owners monitor the entire process ex post (Fama and Jensen 1983, pp. 307–308).

Like the open corporation, the Free Riders MC also is a complex organization in which each agent's actions and knowledge have the potential of influencing the entire organization's welfare. Thus, residual claimancy is distributed equally. Local chapters will retain residual claimancy over the assets they employ in carrying out their illicit businesses, as only they possess the relevant contextual knowledge to identify the profit-maximizing use of the resources they command, which are restricted to the physical assets of the organization. After organizational integration, though, the Free Riders have one more asset at their disposal: their brand. The value of the brand depends critically on the willingness and ability of the mother chapter to enforce the collusive agreement and to exclude nonmembers from operating within its territory. Assigning residual claimancy over the brand to the mother chapter thus provides it with the incentive to take those actions that maximize its value. The mother chapter will, therefore, be able to monetize the value of the brand by requiring the payment of a franchise fee, enforcing rules that prevent members

from affecting its value negatively, and excluding non-members from its use. Under this allocation of property rights, the incentives of all relevant parties are aligned: local chapters maximize their profits within the limits delineated by the rules of the organization and the mother chapter enforces those rules to maximize the value of the brand.

4 The economics and organization of the Hells Angels

4.1 From petty criminals to Hells Angels, Inc

The evolutionary history of the Angels offers strong evidence for the validity of my analysis. Ten years into their existence, the Angels were far from the highly hierarchical organization of today. As I describe in Sect. 2, the first Angels consisted of a handful of independent outlaw motorcycle clubs. They merely happened to share the same name and to operate within the same territory (Barger et al. 2001, p. 31).[20]

This started to change by the end of the 1950s and early 1960s, when the California Angels motorcycle clubs began operating in a more coordinated fashion (Barker 2010; Barger et al. 2001, pp. 32–33). During those decades, the club adopted the "Special Californian Rules", a set of common standards pertaining to membership, brand and governance, as well as how to interact with third parties.[21] Over the next 30 years, the Angels experienced unprecedented expansion. Membership numbers started rising, new chapters were being established in California, and other motorcycle clubs were asking to join the Angels family. That success was not confined to the Californian landscape (Lauchs et al. 2015, p. 16). New chapters were being set up in Nebraska and Massachusetts (Barger et al. 2001, p. 35), and, in 1961, the Angels had their first international chapter in Auckland, Australia (Veno and Gannon 2009; Barker and Human 2009).

The growing national presence of the Angles is confirmed by the closer interest of federal law enforcement agencies in the club. Starting in 1965, the Federal Bureau of Investigation (FBI) began following the activities of the Angels across the nation (FBI 2007). According to the Bureau, by the beginning of the 1970s, the Angels were operating in at least eight states outside of California. In some of those cases, the Angels were merely attending national or regional "runs", while in other cases, they were attempting to establish new chapters or evaluating accepting local OMGs under the umbrella of the Angels.

By the end of the decade, the Angels had emerged as the largest OMG in the nation, with quasi-monopolistic control over the Southwest and the West Coast. This expansion is explained by the creation of new chapters as well as by the submission of existing local clubs, which were forced to choose between being "patched-over"[22] by the Angels and being eradicated altogether (Lauchs et al. 2015, p. 16).

Paralleling this expansion in terms of territorial control and membership, the Angels were experiencing a second major development. While members of the club had always been involved in less than lawful activities during, the first two decades of their existence, they seldom were majorly involved in organized crime proper (Quinn and Shane Koch

[20] According to Barger's recollection of the first years of the club, "Hells Angels in SoCal, San Francisco, and—before they became defunct—North Sacramento were only loosely affiliated" (Barger et al. 2001, p. 31). See also McGuire (1987, p. 2).

[21] Barger et al. (2001, pp. 42–47) provide an insider's discussion of these rules.

[22] That is, joining the HAMC and therefore sew the Angels' patch instead of the old patch of the club.

2003; Barker and Human 2009; Lauchs et al. 2015, p. 54).[23] By the 1970s, Californian members of the Angels, including the president of the Oakland chapter, assumed a major role in the distribution of narcotics in northern California, including heroin, LSD, and other hallucinogens (Quinn 2001; Barker and Human 2009; Barger et al. 2001, pp. 81, 90).

4.2 Angels' governance

4.2.1 Organizational structure

The foregoing mentioned processes were accompanied by a transformation in the organizational structure of the club. The growth in membership in the 1960s and 1970s corresponds, in the model developed in Sect. 3, to an increase in n. More members mean (*ceteris paribus*) a higher cost of both monitoring behavior and enforcing cooperation. At the same time, growing involvement in criminal activities corresponded to an increase in the value of $\beta-\alpha$, which represents the benefits of collusion to each local chapter. As the model predicts, during this period the organization of the Angels became significantly more vertically oriented, and has remained such until this day (Lauchs et al. 2015; NGIC 2011, 2009; Barker 2010).

At the top of the organization is the Oakland chapter, the HAMC's mother chapter. In the 1960s, that group emerged slowly as a *primus inter pares* (Lauchs et al. 2015; Marsden and Sher 2006).[24] Eventually, under the leadership of Ralph"Sonny" Barger, the chapter's long-time president, Oakland took the role it occupies today as the head of the organization (Barker 2005, p. 103). The Oakland chapter provides a variety of services to the Angels. Most important among them is the enforcement of the organization's bylaws. The latter are aimed at the coordination of the activities of individual members and local chapters around the cooperative equilibrium described in Sect. 3, which role is exemplified by the enforcement of a territorial exclusivity clause: according to that clause, each Angels' chapter[25] is assigned a geographic region, usually identified by the bottom rocker of the patch, and its members have the right to exclude others (including other patched members) from operating within it (Marsden and Sher 2006, p. 38). By reducing the extent of competitiveness, territorial exclusivity has the economic effect of generating market power and, therefore, economic profits for the local chapters.

4.2.2 The road to the patch

The Angels' bylaws regulate two other major aspects of the club's life: membership standards and members' interactions with third parties.[26] The Angels limit membership in the club quite stringently. Wannabe members must incur a lengthy, difficult process before

[23] According to Marsden and Sher (2006, p. 40), "[petty crime] turned into professional profit-making in the late 1960s—and it transformed the organization forever. Over the next decades, drugs and crime came to define the Hells Angels around the globe".

[24] The Oakland chapter assumed its prominent position in the club after an internal struggle against the San Francisco chapter in 1961 (Barger et al. 2001, pp. 147–149).

[25] So-called "Nomad Chapters being the only exception. Nomad chapters are employed to sound out the possibility of expansion into a new territory. These chapters are also exceptional in that they are not bound by the club's rule requiring a minimum of eight members per chapter" (Marsden and Sher 2006).

[26] The bylaws also regulate the internal organization of local chapters (Wolf 1991; Veno and Gannon 2009, pp. 73–87).

they can wear the club's patch.[27] This process (usually referred to as the "road to the patch") consists of three main phases.[28] First, the wannabe member must make himself known to the local chapter he wishes to join. Usually, this happens by attending the chapter's favorite bars, the chapter's public events, or by being introduced by a common friend to a full-patched member. The second phase starts when he can convince a full-patched member to sponsor him as an official candidate ("prospect" or "hang around") to his chapter.

During the prospecting period, the candidate must prove his abilities and attachment to the "colors" of the club by serving as a factotum and obeying any order, no matter how humiliating, coming from a full-patched member. Furthermore, the prospect must provide the club with detailed information about his past, the reliability of which is then checked through the club's information network and even private detectives, as well as to introduce himself to all the other Angels chapters in the region (Veno and Gannon 2009, p. 46). At the end of the prospecting period, the candidate must find a full-patched member to support his candidacy[29] at the chapter's weekly meeting, and acceptance requires the unanimous vote of all current members. Although not binding, the opinion of the other chapters in the region is also taken into consideration (Veno and Gannon 2009, pp. 44–46).

4.2.3 The brand

The regulation of interactions with third parties goes back to the early days of the Angels. The original by-laws of the club, the "Special Californian Rules", contain a "no dug burns" provision. In the words of a past president of the club: "if you make a deal, go through with it, just do what you say" (Barger et al. 2001, p. 47).[30] Failure to abide by this provision can cost a member's life, as in the case of Paul De Vries, the president of the Angels' Dutch Nomad chapter. By the end of the 1990s, the Angels were the only OMG operating in The Netherlands, where they had become "a powerful force within the Dutch underworld" (Marsden and Sher 2006, p. 222). Through its connections to the Revolutionary Armed Forces of Colombia (FARC) and the Colombian drug cartel, the Dutch Angels played a major role in the market for narcotics throughout The Netherlands and in the European continent. In 2003, thanks to the guarantee of the members of the Curacao, Colombia, chapter of the club, the Dutch Nomads reached a deal with the Colombian cartel for the shipment of a large quantity of cocaine. In exchange for taking care of the shipment, De Vries and his fellow Angels would get half of the cocaine, with the other half to be delivered to the cartel's European representative. Instead, De Vries, who had in the past been suspected of "burning" drug dealers, had sold the entire shipment as soon as it had arrived in The Netherlands. For his violation of the club's rules, De Vires was killed at the

[27] Different sources identify the length of this process from a minimum of 6 months to 4 years (Barker 2010; Droban 2009; Veno and Gannon 2009).

[28] This process is described in Barker (2010) and Wolf (1991), while Droban (2009) and Dobyns and Johnson-Shelton (2010) recount the experience of a group of informants and undercover agents' attempt to infiltrate the Mesa, Arizona, HAMC chapter.

[29] According to Barger et al. (2001) in the case of one contrary vote, the dissenter is asked to motivate his decision and share the relevant information behind it. If he can convince at least one other member to change his mind, the candidacy is rejected automatically. Two contrary votes always suffice for immediate rejection. See also Veno and Gannon (2009).

[30] Barger himself has claimed that the rule does not imply that the club "[either]sanctioned or disapproved of drug dealing by club members" and that "it's no longer a rule" (Barger et al. 2001, pp. 46–47).

beginning of the following year by his own men, afraid of being subject to the repercussions of his actions.[31]

From an economic perspective, the enforcement of the club's rules pertaining to territorial exclusivity, membership standards, and interactions with third parties serve a common end: the reduction of intra-organizational externalities. Because of the prestige and recognizability of its brand in the underworld, operating under the umbrella of the Hells Angels can open one's doors to large profit opportunities. The downside of this is that each member of the organization also is partially liable for the actions of all others. Without proper enforcement, members would not bear the full cost of their actions. Thus, when the interests of the organization and those of the individual member do not coincide, the enforcement of rules to contain opportunistic behavior becomes necessary.

Territorial exclusivity reduces the degree of competition, thus preventing the depletion of profits from unauthorized illegal activities. The membership standards reduce the probability of infiltration by either informants or undercover agents. Similarly, interactions with third parties by an Angel affects other members as well. A local chapter's decision to rip off an exchange partner from outside the organization (as in the case of the Dutch Angels I described above) could make other parties less likely to do business with any Angel. All three provisions, then, are aimed at preventing reductions in the overall volume of profit opportunities for the members of the organization. No public court would enforce any of the club's provisions. Therefore, like all other organizations operating in the underworld, the Angels must rely on private ordering instead (Williamson 1983). The specific way in which the Oakland chapter enforces the bylaws of the club is by controlling the right to use the Hells Angels' brand (Quinn and Shane Koch 2003). More specifically, on the one hand, the Oakland chapter increases the benefits associated with membership by providing enforcement of the club's bylaws as well as well supplying a variety of other services, as I discuss below. On the other hand, it credibly commits to exclude everyone who does not abide by the club's rules and punish those who disobey its directions (Quinn and Shane Koch 2003, p. 290).

Only fully patched members of the club can wear its insignia, on their jackets as well as on their skins. Indeed, members are required to wear the Angels' colors and tattoos (Wolf 1991, p. 120). Any unauthorized attempt to use the club's brand is punished with violence. For example, in the early 1970s, a group of bikers located in San Rafael, California, had started a Hells Angels chapter without the authorization of the mother club. The Oakland chapter's president sent a group of prospects to San Rafael, where they kidnapped and beat the fake Angels, burned their patches, and effectively dismantled their unauthorized club (Barger et al. 2001, p. 85). In this way, nonmembers are excluded from the benefits of membership. Members and even entire chapters that commit major violations of the club's rules likewise are prohibited using the brand and denied access to the benefits that come with it. As the club's involvement in organized crime increased in the 1970s and 1980s, it adopted a "blood-in, blood-out"[32] provision. According to this provision, once a member, one's loyalty to the club expires only at the time of death. Thus, being expelled from the club often corresponds to a death sentence (McGuire 1987; Davis 1982b, p. 15). Only members in good standing at the time of their retirements are allowed to keep their Angels' tattoos and paraphernalia.[33]

[31] See Marsden and Sher (2006, p. 230) and Barker (2010, pp. 139–140).

[32] "Blood in, blood out" provisions are a common feature among criminal organizations. See Gambetta (1996) and Skarbek (2011, p. 704).

[33] "In the major [outlaw motorcycle] clubs with large scale criminal enterprises there is virtually no way out of the organization other than death by natural causes and death because you know too much to be allowed to leave the organization. In only a handful of cases are members allowed to walk away from the club….

The Oakland chapter's control of the Angels' brand applies beyond the criminal underworld. The Hells Angels brand, including the "Dead Head" emblem, is a registered trademark of the Hells Angels Motorcycle Corporation (Barker 2005, p. 103). The Angels have repeatedly sued private individuals and corporations over the unauthorized use of their trademark (Kovaleski 1998). In recent years, public authorities in Canada and Germany have attempted to take away the Angels' legal control over its name and emblems (Lauchs et al. 2015, p. 82). To the extent that these attempts are successful, they might reduce the Oakland chapter's ability to prevent unauthorized uses of the Angels brand, thus weakening its ability to enforce the club's bylaws.[34]

4.2.4 Club goods

Other than the enforcement of the club's bylaws, the Oakland chapter provides three main services to member chapters: access to an extensive criminal network, in which the most valuable commodities are illicit goods and information; access to conflict-resolution institutions; and leadership during times of war.

Thanks to the Hells Angels brand, individual bikers and local chapters have access to an extensive criminal network that allows them to operate in a variety of illicit activities. The Angels have developed connections with organized criminal organizations around the globe. For example, Latin American drug cartels supply narcotics to Angels' local chapters in the United States, Canada, and European countries, such as Denmark, Finland, The Netherlands, Norway and Sweden (Lauchs et al. 2015; Barker 2010). The network extends to American white supremacist groups, street gangs, and a variety of other traditional criminal organizations (NGIC 2015; Barker 2007; The Economist 1998),[35] but also to other local chapters worldwide as well as to puppet clubs associated with the Angels. The most important commodities exchanged in this network are drugs, weapons and sensitive information about national and international law enforcement agencies. This information is collected through the extensive and effective counterintelligence apparatus of the club (Barker 2007; Veno and Gannon 2009; Quinn and Forsyth 2011; NGIC 2011, p. 33).

The organizational structure of the Hells Angels presents a variety of features aimed at reducing internal conflict and mediating disputes between members when such conflict emerges (Quinn and Forsyth 2011; Lauchs et al. 2015, p. 25). For example, the regional boards of the club are composed of the elected representatives of the club. During the boards' meetings, the representatives discuss and vote over the adoption of regional strategies and policies. Because of the democratic nature of this body, the interests of each chapter are taken into consideration during this decision-making process (Richardson 1991; Barker 2010, p. 91).

When incompatibilities between the interests of two or more local chapters emerge, they are settled at the yearly national and international club "runs", with the Oakland chapter serving as an enforcer of the settlement agreement. These runs require the attendance of

Footnote 33 continued
Those who are permitted to leave are watched carefully for the slightest sign of weakening allegiance to the club" (McGuire 1987, p. 11).

[34] I thank the anonymous referee for pointing out this potential implication of my discussion.

[35] "Outlaw motorcycle gangs have had close criminal associations with members of the traditional organized crime families. The La Cosa Nostra (LCN) is afforded security and transportation in narcotics deals in exchange for narcotics and contract killings. For example, the Hells Angels in New York have been criminally linked to the Gambino organized crime family; and in New York, the Buffalino family" (Richardson 1991, p. 15).

members from all Angels affiliates from around the nation and internationally to discuss challenges and future organizational strategies (Barger et al. 2001, p. 140). Finally, the Oakland chapter leads the club during so-called "biker wars". Biker wars are fought for territorial control (Lauchs et al. 2015; Richardson 1991). Since the 1970s, with the rise of other OMGs[36] the Angels continuously have been involved in such conflicts. In 1974, the HAMC declared the first national "biker war" against the Outlaws for the control of criminal activities in the Midwest and Mid-Atlantic regions of the United States (Quinn and Forsyth 2011). Also in the 1970s, the HAMC declared war on the Mongols over the control of California. The conflict had started for the right of the Mongols to wear colors like those of the Angels'. Eventually, the Mongols defeated the Angels and in the 1980s "seized control of Southern California from the HAMC" (Barker 2010; CDOJ 2008, p. 15).[37]

4.3 Incentive alignment

As I discuss in Sect. 3, the collusive equilibrium will be sustainable only if all parties cannot improve their positions by changing their strategies, including the head of the hierarchy. The Oakland chapter must find in its interest to maximize the net revenues for its members by enforcing collusion, discouraging opportunistic behavior, and providing other services to its members. The organizational structure of the Angels ensures that this is the case, primarily by making the Oakland chapter (or, more accurately, its members and officers) residual claimants to the organization's revenues. As I mention above, the Oakland chapter exercises exclusive control over the Hells Angels brand. While acceptance into the club and abidance to the club's bylaws are necessary conditions for an individual member's right to wear the Angels' colors, they are not sufficient: members are required to pay a share of their revenues from criminal activities to the Oakland chapter. According to (Barker 2011, p. 208), this payment consists of shares as large as 10% of a chapter's "criminal proceeds". Refusing to pay leads to the expulsion from the club (NGIC 2015, p. 23).

At the margin, this vertical revenue-sharing scheme provides the incentive for the mother chapter to enforce the cooperative equilibrium, as well as to supply the services described above. This effect is reinforced by the ability of the Oakland chapter to extract an upfront payment for the use of the club's colors. The payment of the franchise fee can take different forms.[38] This upfront entry fee allows the Oakland chapter to monetize any increase in the value of the brand, thus providing it further incentives to monitor the behavior of the component members of the organization. A similar logic applies to the provision of conflict resolution institutions and leadership in times of war. With respect to the former, as a partial residual claimant to local chapters' revenues, it is in the interest of the Oakland chapter to make sure that the resources of the club are used to produce revenues by providing illegal goods and services to members (per, by producing and distributing narcotics), and extracting wealth from the public (e.g., by stealing motorcycles

[36] Such as the Outlaws in the Midwest, the Pagans in the Mid-Atlantic, the Bandidos in the South and North-West, and the Mongols in California.

[37] The conflict between Mongols and Angels in Southern California is still lively today, as the Mongols have been identified as the likely responsible for the murder of the president of the HAMC San Francisco chapter (CDOJ 2008, 15).

[38] Some examples are cash (Droban 2009, pp. 38, 154), connections with other criminal organizations (Barker 2011, pp. 207–208), as well as carrying out a murder for the club (Droban 2009, p. 65).

and auto parts). From the point of view of the organization, all resources employed in intra-organizational conflict are pure waste. The Oakland chapter also has an incentive to take a lead in times of conflict against other criminal organizations. Local chapters that are not involved directly in the conflict—for example, because they are located on the coastal regions of the North American continent—have a much weaker incentive to support their brothers in "fly-over country". To the extent that the revenues of the organization depend on territorial control, the Oakland chapter will want to prevent other organizations from taking over existing Angels' territory.

5 Conclusion

Organized motorcycle gangs (OMGs) have become among the severest threats to civil society in North America and around the world. Although they were not created for this purpose originally, they have evolved into organized crime groups with more than 20,000 members in the United States alone (NGIC 2009, p. 8). The focus of these groups has, during their history, shifted more and more from motorcycling and heterodox lifestyles to criminal activities, such as the production and distribution of narcotics and prostitution (Lauchs et al. 2015, p. 2).

Underlying forces on the demand and supply sides of the underworld economy of the United States are the root causes of the rise of the rise of OMGs in the second half of the 20th century. *Mutatis mutandis*, the dynamic is similar to the one that led to the rise of American prison gangs over the same period (Skarbek 2010, 2011, 2012). Expanding illicit markets that cannot rely on formal enforcement mechanisms provide the incentive for groups to organize to provide protection against external threats and to enforce contracts. Any attempt to make sense of the evolution of OMGs, and to address the security concerns that they generate, without considering the economic forces that led to their rise are bound to fail to deliver on their promise.

In the paper, I argue that among the main determinants of the Angels' success lies in its organizational structure. During the years of expansion of the underground economy, the Angels had to achieve effective cooperation to capture the resulting profit opportunities. The adopted institutional arrangements are those of a hierarchical organizational form headed by the Oakland "mother chapter". This success notwithstanding, since their heyday in the 1970s and 1980s, the Angels have lost their place as the largest and most powerful OMG, while they keep their status as the most recognizable motorcycle group by the public and they remain one of the largest and more powerful OMGs in the United States, as well as being the single most powerful one in Australia, Canada, Western Europe and the Scandinavian countries (NGIC 2013). A potential explanation for the relative decline of the Angels in the United States is the greater attention to it by federal law enforcement agencies since the 1970s,[39] the most recent example being the successful infiltration by the US Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) of a local chapter of the Angels in Arizona in 2003.[40] As a result of that infiltration, other OMGs, such as the Outlaws Motorcycle Club (MC) and the Mongols MC, nowadays have more chapters and members than the Angels, at least in the United States (Quinn and Forsyth 2009; Barker 2011).

[39] Since 1979, the Angels have been tried repeatedly, sometimes unsuccessfully, under the Racketeer Influenced and Corrupt Organizations Act, popularly known as RICO (Marsden and Sher 2006).

[40] These events are recounted in Droban (2009) and Dobyns and Johnson-Shelton (2010).

The relative decline of the Angels in the last few decades is not inconsistent with the framework I develop in this paper. The Angels remain among the most effective criminal enterprises in the United States (NGIC 2013, 2015; Marsden and Sher 2006). Furthermore, the OMGs that recently have outgrown the Angels are similarly organized. Indeed, all major American OMGs promptly adopted the organizational structure and bylaws developed by the Hells Angels. Like the Angels, they are characterized as hierarchical, comprising a mother chapter towering the organization, and use violence to enforce the control their territories.[41] For example, the Outlaws Motorcycle Club, now the largest OMG in the United States, has a strong hierarchical structure, with the Chicago mother chapter heading more than 80 chapters throughout the United States. Since the 1960s, the Outlaws have emerged as the dominant OMG in the Midwest, but also have a significant international presence, especially in central Europe (Barker 2005, p. 105). Like the Angels, the Outlaws are involved heavily in criminal activities, including "racketeering, mail fraud, money laundering extortion, drug charges, wire fraud, witness tampering and illegal gambling", thus attracting the attention of law enforcers at the local and federal levels (Lauchs et al. 2015, p. 30).

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[41] See Lauchs et al. (2015, p. 2) and Barger et al. (2001, p. 36). Wolf (1991) discusses the similarity between the different OMGs' bylaws. That book also reproduces the texts of many such bylaws, including those of major OMGs, such as the Hells Angels and the Pagans.

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