Plunder & Protection Inc.*

HALVOR MEHLUM

Frisch Centre, University of Oslo

KARL OVE MOENE

Department of Economics, University of Oslo

RAGNAR TORVIK

Department of Economics, Norwegian University of Science and Technology

When the state fails to supply basic security and protection of property, violent entrepreneurs not only seize the opportunity of plundering, but some also enter the protection business and provide protection against plunderers. This uncoordinated division of labor is advantageous for the entire group of violent entrepreneurs. Hence, in weak states a situation may arise where a large number of violent entrepreneurs can operate side by side as plunderers and protectors squeezing the producers from both sides. The problem reached new levels at the end of the Cold War. As military forces were demobilized without civilian jobs to go to, many countries got an oversupply of qualified violent people for crime, warfare, and private protection. In this 'market for extortion' the entry of new violent entrepreneurs enhances the profitability of them all. The supply of violence creates its own demand – an externality of violence that is detrimental to the development in poor countries.

Introduction

Plunder and protection are incorporated. In weak states, violent enterprises are involved in a wide range of activities, from small-scale racketeering to wholesale pillage. They include not only bandit gangs, gangsters, warlords, guerrilla groups, and mercenaries, but also enterprises such as private security forces, military advisory groups, and parts of the private protection business.

Since the Cold War, this kind of privatization of violence and security has been boosted by a substantial demobilization of military personnel. In Russia, the private protection business has exploded. In Africa, private security is also on a sharp rise. Security firms take on the role as a protector of property from theft, and the production of burglar bars has become an African growth industry – in some countries, the only one. Military security is no exception to the trend towards privatization. International firms like Sandline International, Defense Systems Limited, Military Professional Resources Inc., Gurkha Security Guards, and Executive

Outcomes have been offering a wide range of military training, armed protection, and military strategic consulting in conflict-ridden countries.

Are we witnessing a transition towards efficient property rights, guarded by private security firms, or the emergence of a 'protection screw' where violent entrepreneurs exploit producers in an extortionist manner? One might think that the demobilization of military personnel should imply a declining price of private protection, which again might explain why it has increased so much. However, demobilized troops who fail to become reintegrated in society might also be recruited by bandit gangs and paramilitary squads, which again increases the demand for protection.

Our basic claim is this: In weak states, violent entrepreneurs engage themselves in a rent-enhancing division of labor where the entrepreneurs go into both plundering and protection, squeezing the targets from two sides. This is the *protection screw* and is meant to capture several organizational forms ranging from warlord competition, competing patron–client relationships, and clan conflicts to the interaction between commercial protection firms and roving bandits. In all these cases, plunder and protection interact in a 'market for extortion' where also the distribution of the rents from drug and arms trafficking plays an essential role.

To support our claim, we first provide a brief overview of some recent trends of plunder and protection in Africa, Russia, and Latin America. Next, we explore the logic of our mechanism within a simple model from which we derive four basic propositions about the properties of the market for extortion.

Privatization of Violence

Wealth-seeking men specialized in violence and warfare appear early in history. Organized plunder and protection, or what Lane calls violence-using and violence-controlling enterprises, were common in Europe during the millennium 700–1700:

> Which princes were rendering the service of police? Which were racketeers or even plunderers? A plunderer could become in effect the chief of police as soon as he regularized his 'take,' adapted it to the capacity to pay, defended his preserve against other plunderers . . . [A] government was engaged in pure policing and defensive war, or was in contrast a kind of 'racket', imposing payments by its use of violence against those who refused to pay. (Lane, 1958: 403)

This description has a present-day resemblance to the relationship between patrons and clients in weak states in Africa. In these states, strong men dominate: 'Devoid of police protection, people will thus either turn to patron for succour or, inevitably and reluctantly they will seek help from the bosses of other criminal gangs' (Chabal & Daloz, 1999: 81). When the state fails to supply basic security and protection of property, violent entrepreneurs not only seize the opportunity of plundering, but some also enter the protection business and provide some protection against plunderers. This uncoordinated division of labor is advantageous for the entire group of violent entrepreneurs. Hence, in weak states a situation may arise where a large number of violent entrepreneurs can operate side by side as plunderers and protectors squeezing the producers from both sides.

The problem reached new levels after the end of the Cold War. As military budgets began shrinking in the mid-1980s – in some cases as civil wars were brought to an end – many countries undertook considerable demobilizations. For instance, in the early 1990s, Ethiopia reduced the army by 500,000 soldiers and Eritrea by 50,000. Also in the 1990s, Uganda reduced the army by 36,000 soldiers, Mozambique by 90,000, Namibia by 50,000, and Liberia by 20,000 (Kingma, 2000). Demobilized personnel and

low-paid officers found new sources of income as violent entrepreneurs. As Lock describes: 'Moonlighting in the private security industry is among the more benign alternative activities; rackets and other predatory activities turned the military institution in a number of countries into a scourge permanently haunting the civilian population' (Lock, 1998: 1393). In Liberia, people talked about 'sobels', soldiers who turned rebels at night, and 'pobbers', police who turned robbers at night. In an analysis of Uganda, Collier (1994) finds that returning landless demobilized forces tend to increase crime rates. When the returning soldiers have access to land, however, crime rates tend to fall. He attributes the latter effect to the deterrent effect that former soldiers in the community has on crime in general.

In South Africa, unemployed men are recruited by vigilante groups that fight crime in their own way. The report 'Guardian or Gangsters?', by the South African Centre for the Study of Violence and Reconciliation, describes the group Mapogo a Mathamaga. The group has 40,000 members, each of whom pays a fixed yearly fee, depending on the size of the business. In return, Mapogo steps in when a member is the target of crime. Mapogo hires unemployed men to track down the criminals, to recover the stolen goods, and finally to give the criminal 'African medicine', an assortment of corporal punishment (von Schnitzler, 2001).

The nature of military security, fighting, and peacekeeping has also changed. Some observers talk about a new warrior class in a world of low-intensity conflicts. Reno (1998) describes warlord capitalism in Africa, with special reference to the privatization of political power. Private groups and military corporations have stepped in to fill the vacuum after the withdrawal of superpower support. According to O'Brien (1999: 54), private organizations 'are increasingly taking over the role of either (sometimes both) exploiter or peacemaker'.

The most prominent of the private security companies is Executive Outcomes, also called the world's first corporate army. This South African-based company could at its height field a powerful force, including two Boeing 727s, a medium artillery, combat aircrafts, and gun ships. It offered military training, VIP protection, and protection of gold and diamond mines as well as oil fields. It employed former members of the South African Defence Force and fought both against UNITA in Angola and against rebels in Sierra Leone.[1]

The Russian economy in the 1990s is also rich in examples of violent extortionists, protection rackets, and criminal gangs (*Mafyia*) that victimize and rob their targets.[2] As in Africa, the presence of such criminal groups in an environment of weak law enforcement has led to a high demand for protection among producers. This protection has in part been provided by the criminal groups themselves for a hefty price. As Volkov (2000: 46) observed in Russia: 'The first Racketeer groups were mainly engaged in physical protection from other such groups.'

Also in Russia, there has been a drastic downsizing of the military forces and the security agencies, releasing a large number of former soldiers and agents with violence as part of their trade. A substantial fraction of these men found new engagement in the booming shadow economy. Some went into banditry, predating on the vulnerable private sector. This predation raised the demand for protection (simply called 'roof') that the state could not provide. Hence, violent entrepreneurs entered both sides of the protection market; the bandits generated a demand for protection that the private security firms provided. In many cases, the

[1] See Cilliers & Mason (1999) for a comprehensive account of the privatization of military services in Africa.
[2] See Volkov (1999) and Ledeneva & Kurkchiyan (2000).

security firms were just a subdivision of criminal enterprises.

In other cases, officers of the police, the Interior Ministry, and the KGB provided illegal protection services. As Volkov (2000: 57) observed in St. Petersburg: 'one of the oldest and most prominent protection companies "Scorpion" was set up and headed by A. Efimov (nickname "Fime"), one of the *avtoritety* of *tambovskaia* criminal group, and actively used to draw police officers to perform the "roof" functions'.

Last but not least, plunder and protection absorb large amounts of resources also in Latin America. As stated by *The Economist* (1996: 19): 'The spiral of violence has produced a spiral of spending on private security, which often contributes to more crime, as private armies turn into paramilitary squads.' One of the worst cases is Colombia, where guerrillas are engaged in the lucrative businesses of kidnapping and extortion, collecting more than a hundred million US dollars per year only from the oil industry (Hunter, 1996). The threat of kidnapping has of course raised the demand for protection, which in turn is supplied by other paramilitary groups. In Mexico, the police have a reputation for bringing crime from within as the officers participate in drug trafficking and extortion.

Extortion by the Threat of Others

To explore the logic of violent entrepreneurship, we must incorporate three main sources of income:

(1) *Plundering* of unprotected areas or property.
(2) *Trafficking* in drugs, weapons, precious stones, etc.
(3) *Protection* of areas and property from plundering.

Plundering and trafficking require mobility and represent apparent law violations. Those enterprises that are engaged in these activities are like roving bandits, to use Olson's term. When engaged in the protection business, violent enterprises protect targets against plunder by the roving bandits. It is difficult to be involved in all three activities at the same time. With a limited capacity, each violent enterprise has to specialize. An enterprise in the protection business has a varnish of respectability – after all, it fights criminals. The enterprise can therefore do less plundering and trafficking. Using again one of Olson's metaphors, a protector is a stationary bandit (Olson, 2000).

The targets can be anything from households, shops, and industries to communities, cities, and regions – all vulnerable to plundering and with a need for protection. With protection, a target is safe from plundering, but has to pay protection money. To sharpen our discussion of the entrepreneurial choice between plunder and protection, we simply assume that the protection business consists of opportunistic enterprises that are willing to enter banditry if the price is right. Furthermore, an enterprise that moves into roving banditry must exit from the protection business to get incomes from plundering and trafficking. Vice versa, a violent enterprise must exit plundering and trafficking before entering the protection business.

These assumptions do not rule out that a large enterprise may be active in both plundering and protection via two specialized subdivisions. This generalization is relevant for paramilitary groups that protect targets and at the same time are involved in the narcotics business, as they are in Colombia. We return to alternative assumptions about the distribution of the rents from trafficking below.

In the model, there are a number of targets, x, of which p are protected and $x - p$ unprotected. We assume that each violent enterprise has a given capacity that is used for either plunder or protection. The total capacity of all violent enterprises is denoted

z, measuring the number of targets that can be either protected, p, or plundered, $z - p$. Targets choose whether or not to buy protection. When a violent enterprise plunders a target, it seizes S and destroys D.

We are particularly interested in situations where the capacity of violent entrepreneurs, z, is given and lower than the number of targets, x.[3] This case fits the prevalent conditions in many countries without legitimate protection provided by the state. There are many targets to plunder relative to the capacity of the violent entrepreneurs. This is true even for crime-intensive Sierra Leone. The manager of Sandline International, Lt. Col. Spicer (1999: 190), describes the operations of commercial security guards in Sierra Leone as follows: '[They] were prepared to put up a fight if their installations were attacked, and the RUF therefore tended to leave them alone; there were plenty of easier targets for the RUF to exploit in Sierra Leone, plants where there were no guards whatsoever.'

When z is lower than x, the probability of being plundered, μ, is equal to the capacity of roving bandits ($z - p$) relative to the number of unprotected targets ($x - p$):

$$\mu = \frac{z-p}{x-p} \leq 1 \quad \text{when} \quad z \leq x \qquad (1)$$

The expected loss for a target without protection is

$$q_d = \mu\left(S + D\right) \qquad (2)$$

In Figure 1, we illustrate how the expected or average loss, q_d, of an unprotected target, depends on the extent of protection, p. We have drawn the q_d-curve for two different

levels of violent capacity, z: for $z = z_1 < x$, that is, violent capacity well below the number of targets, and for $z = x$, that is, for violent capacity equal to the number of targets. When $z = z_1$, the average loss is declining in p. More protection among other targets implies a lower probability of being plundered as a larger number of violent enterprises are busy in protection.[4] When all violent entrepreneurs are in the protection business, $p = z_1$, unprotected targets are sure not to be visited and are free riders on the other firm's protection. When the violent capacity is exactly equal to the number of targets, $z = x$, it follows from (1) that all unprotected targets are approached with certainty. Hence, the loss of unprotected targets is constant and equal to $S + D$, irrespective of the extent of protection among other targets.

Let us then move to how the returns to roving bandits are determined. Roving bandits get their revenue from two sources: plundering of unprotected targets and trafficking. The total value of the trafficking business is exogenously given equal to V. Each roving bandit obtains on average a share $V/(z - p)$.[5]

When the plunderers have full information about the extent of protection and as long as $z \leq x$, all plunderers will always find an unprotected target where they can steal S.[6] The return to a roving bandit is therefore

$$\pi_r = S + \frac{V}{z - p} \qquad (3)$$

Figure 2 illustrates how the return to a roving bandit depends on the extent of

---

[3] By having the number of violent entrepreneurs and the number of targets exogenous, we sharpen our focus on how the violent entrepreneurs endogenously are allocated between plunder and protection. In Mehlum, Moene & Torvik (2002), we discuss a dynamic model of endogenous growth of entrepreneurs and their allocation between parasitic and productive activities.

[4] Formally, from (1) it follows that $\partial\mu/\partial p = -(x - z)/(x - p)^2 < 0$ when $x > z$, while $\partial\mu/\partial p = 0$ when $x = z$.
[5] More generally, we could just have assumed that each roving bandit obtains a rent from trafficking that is a declining function of ($z - p$). This assumption would not change the main propositions of the article.
[6] Implicitly, we assume that the period length is such that the capacity of each plunderer is sufficient to rob only one target.

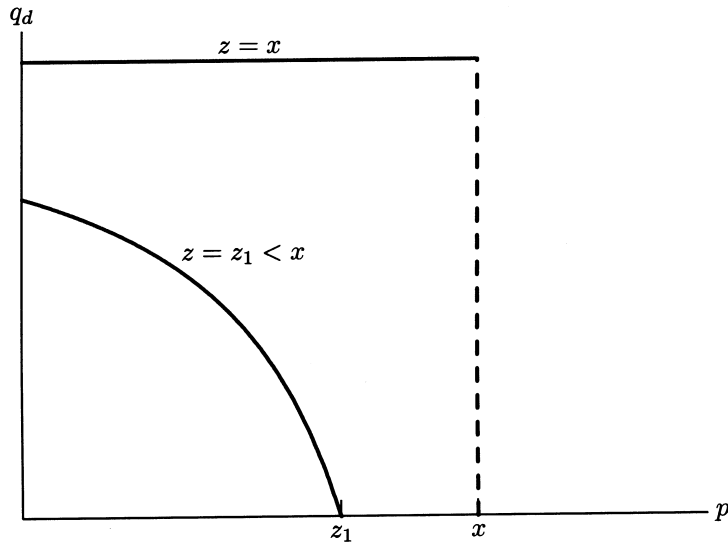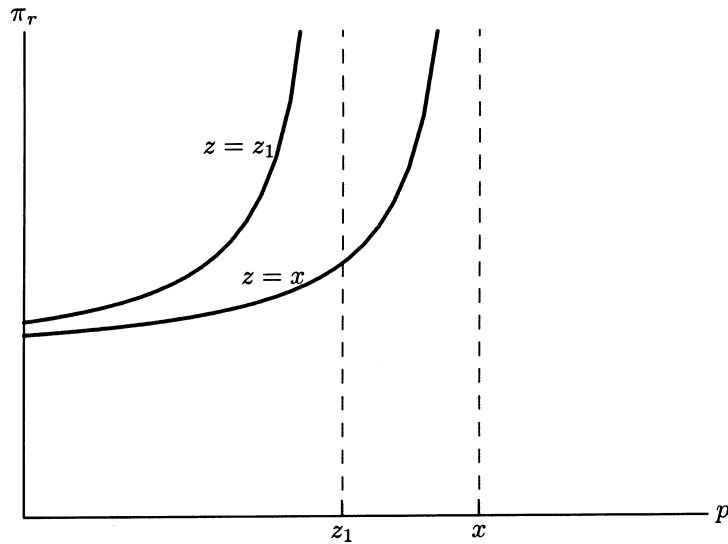Figure 1.   Expected Loss for a Target

Figure 2.   Return to Roving Bandits

protection. Again we have drawn the relationship for two values of violent capacity, for $z = z_1 < x$ and for $z_1 = x$. The return to a roving bandit, π_r, is increasing in the extent of protection. A higher p implies a higher return from trafficking since the number of roving bandits, who share the value of trafficking, goes down. Hence, as shown in Figure 2, the return to roving bandits are upward-sloping both when $z = z_1$ and when $z = x$.

So far, we have discussed how returns to roving bandits and the average loss to targets depend on the extent of protection. The

equilibrium extent of protection, p, and its price, q, are determined by an interplay of the willingness to pay and the supply. The supply price is equal to π_r which represents income foregone by a violent entrepreneur when switching from roving banditry to the protection business. The willingness to pay for protection is determined by the average loss of an unprotected target and is therefore equal to q_d.

An interior equilibrium requires that the supply price equals the demand price:

$$\pi_r = S + \frac{V}{z-p} = \frac{z-p}{x-p}(S+D) = q_d \quad (4)$$

This equilibrium allocation, illustrated in Figure 3 by the intersection of the two curves, always contains some roving bandits since (i) the income to a roving bandit goes to infinity[7] as their number approaches zero

Figure 3.   Protection in Thin Market
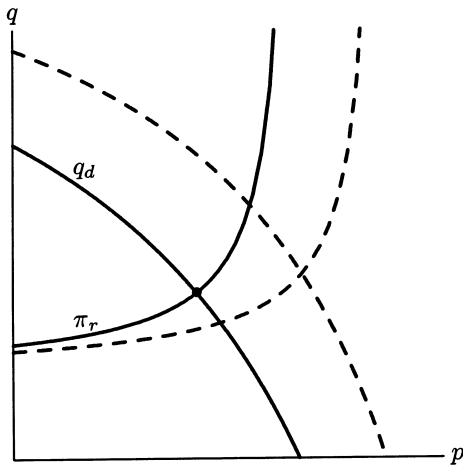
and since (ii) the demand for protection goes to zero when the number of roving bandits declines. Accordingly, the extent of protection, p, is always less than the total violent

[7] Strictly speaking, the maximum π_r is equal to $S + V/\Delta$, where Δ is the smallest measurable unit of bandit activity. We assume that V/Δ is sufficiently high for an interior equilibrium.

capacity, z. When z is sufficiently low (that is, less than z^*), no roving bandit is willing to enter the protection business for a price that targets are willing to pay. We find the threshold level, z^*, by inserting $p = 0$ in (4) and solve for z to obtain

$$z^* \equiv \frac{Sx + \sqrt{\left(S^2 x^2 + 4\left(S+D\right)Vx\right)}}{2\left(S+D\right)} \quad (5)$$

When $z < z^*$, there is no protection, $p = 0$, and the return to a roving bandit is larger than the willingness to pay for protection, $\pi_r > q_d$. Hence, an interior equilibrium as illustrated in Figure 3 is conditioned on the violent capacity, z, being larger than the threshold, z^*.

In the market for protection in Figure 3, an increase in the violent capacity, z, for instance due to demobilization of military forces, increases both the supply and the demand for protection. This feature makes the market for extortion different from the textbook case of demand equal to supply. One important result is pointed out in the following proposition:

> *Proposition 1:*   The extortion market: As the number of violent enterprises goes up, (i) the extent of protection goes up, (ii) the number of roving bandits declines, and (iii) the price of protection increases.

Here, implication (i) is the least surprising. It simply says that as the number of potential thieves, z, goes up the equilibrium amount of protection, p, increases as well. It follows since a higher violent capacity, z, raises both supply and demand (both curves in Figure 3 are shifted to the right). Part (ii) of the proposition states that the increase in protection exceeds the rise in the number of potential thieves, implying a reduction in the number of roving bandits $(z - p)$.

To see why the number of roving bandits has to decline as the violent capacity rises, consider the opposite alternative that the

number of roving bandits increased. Starting out in an equilibrium where $\pi_r = q_d$, a higher number of roving bandits would obviously increase the demand for protection, implying a *higher* demand price, q_d. However, a higher number of roving bandits would *lower* the supply price, π_p, as the opportunity cost of switching from plundering to protection goes down when z is higher. This cannot be an equilibrium, and the number of roving bandits cannot increase (or remain constant). Hence, as the violent capacity increases, the number of roving bandits declines and, as stated in part (iii) of the proposition, the price of protection, q, increases.[8] The increase in q follows as the number of unprotected targets declines relatively more than the number of roving bandits, raising the probability, μ, that an unprotected target is approached.

Knowing that the price for protection goes up, it is immediate that the income of each violent enterprise increases. Hence, the positive externality between plunderers and protectors generates an increasing return to violent entrepreneurs:

> *Proposition 2:* Increasing returns to scale: As the capacity of violent enterprises, z, increases, from a level above z^*, the income of each violent entrepreneur increases.

When the violent capacity, z, is smaller than z^* defined by (5), protection is not profitable, and the return to a violent enterprise is decreasing in z as each roving bandit obtains a lower share of the trafficking return, V.[9]

---

[8] Formally, by differentiation of (4) and utilizing the fact that $p < z < x$, we have

$$\frac{\partial p}{\partial z} = \frac{a + \frac{x-p}{x-z}}{a+1} > 1, \text{ where } a = \frac{V}{(x-z)(S+D)\mu^2}$$

[9] Strictly increasing returns to scale, as emphasized in Proposition 3, require a strictly positive V. If the trafficking rent, V, were zero, a higher violent capacity, z, would leave the income of each violent entrepreneur unchanged. As stated in the discussion leading up to Proposition 4 below, this would also be true if V were shared equally between plunderers and protectors.

Hence, when the violent capacity is small, the demand for protection is too low, and the violent entrepreneurs congest each other in sharing V. When z exceeds z^*, the demand for protection is sufficient for protection to be profitable, and further increases in z raise the income to all violent entrepreneurs. In this situation, there is a complementarity among violent enterprises in the sense that (i) roving bandits generate a high need for protection and therefore a high profitability in the protection business and (ii) as a substantial part of the pool of violent entrepreneurs is occupied within the protection business, the returns to roving bandits are high as well. This complementarity, the protection screw, is active as long as roving bandits with certainty can find unprotected targets to plunder. This is the case as long as $z \leq x$.

The positive relationship between the violent capacity, z, and the returns to violent enterprises is due to the protection screw, which becomes stronger the higher the violent capacity. The protection screw works in the way that the violent entrepreneurs collect an increasing fraction of the rents associated with higher protection. When protection, p, increases, there is a gain for society due to the decline in the number of roving bandits and thus a decline in the damage associated with stealing. Each plunderer steals S and destroys D. Hence, when the extent of protection is equal to p, the gain for society is pD. How is this net gain distributed between the targets and the violent entrepreneurs?

Consider first the group of targets. Their net gain from protection is

$$G_T = p\big((S+D) - q\big) = p(1-\mu)(S+D)$$

For each violent entrepreneur that moves from plundering to protection, the targets save $(S + D)$, but they have to pay q. Inserting from the equilibrium condition $q = \mu(S + D)$ from (2), the last equality follows.

For the violent entrepreneurs as a group, the net gain from protection is

$$G_z = p(q - S) = p(\mu D - (1 - \mu) S)$$

For each violent entrepreneur that moves from plundering to protection, the violent entrepreneurs earn q while S is lost in stealing foregone.

It follows that

$$G_z + G_T = pD \tag{6}$$

The violent entrepreneurs' share of the total gain, pD, can therefore be expressed as

$$g_z \equiv \frac{G_z}{G_z + G_T} = \frac{\mu D - (1 - \mu) S}{D} \tag{7}$$

g_z is increasing in the probability of a visit, μ. Knowing that μ increases with z when z is larger than z^*, the result below follows.

Proposition 3: The protection screw: When the violent capacity, z, increases from a level above z^*, the violent entrepreneurs obtain an increasing share of the gain from protection. When z reaches x, the violent entrepreneurs obtain the entire gain.

Proof: When z goes from z^* to x, the probability that a target is approached, μ, goes from z^*/x to 1, implying that g_z increases to unity.

Consider the case where the targets are productive enterprises. As the income of the violent predators goes up, these producers must bear higher costs. For both reasons, the relative profitability turns in favor of predation and away from production. Thus, if we enrich our analysis by allowing entrepreneurs to move also between production and predation (between x and z) in response to the relative profitability, the protection screw could be even more harmful. When the number of producers and predators are endogeneous, the protection screw could imply

that z/x increases. This process would continue until z exceeds x. At this point, congestion among predators sets in, lowering π_r and eventually stabilizing the situation.[10]

What is the significance of the roving bandits' exclusive rights to the trafficking rents? Let R denote the total extortion rents collected in plundering and protection. Excluding trafficking rents, each of the $(z - p)$ plunderers obtains S, and each of the p protectors obtains q_d, implying a total of

$$R(p) = (z - p) S + p \overbrace{\frac{z - p}{x - p}(S + D)}^{q_d} \tag{8}$$

The value of R, as shown in Figure 4, is a hump-shaped function of the extent of protection, p. When p is zero, the total rent is zS. When all violent entrepreneurs are in protection, $p = z$, the value of R is zero. R is above zS for all p between 0 and $\hat{p}$. The value of $\hat{p}$ follows from (8) by setting R equal to zS, implying that

$$\hat{p} = z - (x - z) \frac{S}{D} \tag{9}$$

When the roving bandits obtain the trafficking rents, the equilibrium allocation of protection is always lower than $\hat{p}$. To show this, we consider the case where the trafficking rents are shared among all violent entrepreneurs. In that case, the opportunity cost of protection is S (and not $S + V/(z - p)$), and the equilibrium condition for the allocation of violent entrepreneurs between plundering and protection is now

$$S = \frac{z - p}{x - p}(S + D) \tag{10}$$

Solving (10), it becomes clear that the equilibrium level of protection is equal to $\hat{p}$. In the case where roving bandits get the exclusive rights to trafficking rents, the opportunity cost of protection becomes

[10] See Mehlum, Moene & Torvik (2002) for a discussion of poverty traps and the allocation of entrepreneurs.

Figure 4.   Average Extortion Gain to Violent Entrepreneurs
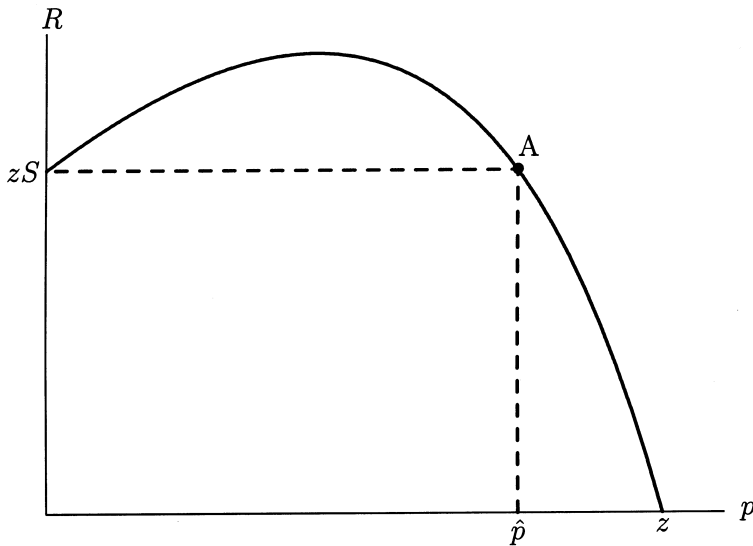
higher than *S*, implying that the equilibrium level of protection is lower than $\hat{p}$. Hence, without exclusive rights to the trafficking rents, the protection business does not add to the extraction of rents from the targets since $R(0) = R(\hat{p}) = zS$, as illustrated in Figure 4. This discussion can be summarized as follows:

>   *Proposition 4:* Rent enhancement: When plunderers have exclusive access to trafficking, the division of labor between plunderers and protectors enhances their total extortion rent and the incomes to both groups go up.

Conclusion

Why have not a larger number of the poor countries realized substantial peace rents after the Cold War? Part of the explanation is found in the problems of reintegrating demobilized soldiers into civil life. Worried about the costs of reintegrating ex-combatants, a recent African conference summarized its views as follows.

>   The long-term costs for society could become

even larger if they are not able to reintegrate to civilian life. Failure to support the reintegration process effectively may lead to increasing unemployment and social deprivation, which could result in increasing crime rates and political instability. If ex-soldiers are not properly disarmed and armories not well protected, banditry may increase or arms may end up in other, less stable parts of the region. On the positive side, the skills of former soldiers gained in the army might be very useful in the development communities and the country as a whole. Many ex-fighters prove to be very entrepreneurial. (BICC, 2001: 1)

Unfortunately, a substantial part of this entrepreneurial talent was used in extra-legal activities. As a large number of military personnel were demobilized without appropriate civilian jobs to go to, many countries got a rising supply of qualified people for violent crime, local warfare, and private protection.

>   No matter whether large-scale demobilization after conflict or the pervasive slow-motion demobilization are characterizing the scene, the emerging private security industry and the criminal sector of the economy alike . . . draw from a labor market oversupplied with a wide range of military experience and know-how to choose from. (Lock, 1998: 1400)

We have shown that this oversupply of violent entrepreneurs may lead to a protection screw where violent enterprises allocate themselves into two opposing camps of plunderers and protectors. The price of protection goes up with the violent capacity, and so does the gain to plunderers, squeezing the targets from two sides. Hence, one important lesson for policymakers is that a decline in plundering, as seen in Russia, does not necessarily imply that the social cost of insecurity is going down. Private security is at best a partial replacement of public security and may be part of a market-based extortion. Sufficient public protection from the outset could prevent the emergence of the protection screw altogether.

Tilly (1985: 171) makes the following distinction: 'Someone who produces both the danger and, at a price, the shield against it is a racketeer. Someone who provides a needed shield but has little control over the danger's appearance qualifies as a legitimate protector.' What we have described is a combination of both types. The violent entrepreneurs are producing both the danger and the protection. Each violent entrepreneur, however, goes into one of two groups: one that produces the danger, the plunderers, and one that produces the shield, the protectors. The interaction between the two groups generates a market for extortion that differs from both ordinary markets and conventional organized crime.

In ordinary markets, the entry of new enterprises hurts the profitability of the established ones. This is not the case in the market for extortion, where the entry of new violent entrepreneurs enhances the profitability of all. Of course, violent entrepreneurs provide beneficial services of protection that the state may fail to deliver. But the problems that such an entrepreneur solves are created by his competitors. Thus, a rise in violent capacity creates a higher demand and a higher price for protection.

Organized crime is conventionally perceived as monopolistic or exclusive; this is strongly emphasized by Schelling in his seminal articles from 1967 and 1971. Organized extortionists select victims with little or no protection from law, such as drug dealers, black-market firms, illegal gamblers, and other criminals in the underworld. The essence of organized crime, according to Schelling, is to achieve a dominant position where 'large criminal business firms provide a governmental structure to the underworld, helping to maintain peace, setting rules, arbitrating disputes, and enforcing discipline' (Schelling, 1967: 64).[11]

While organized crime has an encompassing interest in order and peace within the area under exclusive control, each violent enterprise in the market for extortion has an interest in disorder and violence. As Chabal & Daloz (1999: 91) observe with respect to patrons and warlords, 'the high level of violence in most countries in Africa [is used as a resource] by the "businessmen" of crime. These assorted patrons and warlords are the only ones both to provide some order and to facilitate domestication of prevailing disorder.'

Disorder and violence increase the willingness to pay for protection and leave higher shares of the rents from trafficking to each warlord and roving bandit. Thus, the market for extortion that we consider is not dominated by any enterprise stronger than the others. It is a competitive market driven by Say's law: the supply of violence creates its own demand. This is why the violent entrepreneurs are so harmful for development.

[11] Schelling's perspective has had a deserved influence in the economics of organized crime, as can be seen by the many contributions in the book edited by Fiorentini & Peltzman from 1995. See in particular the contribution by Grossman. Moreover, the papers by Grossman (2001), Konrad & Skaperdas (1997, 1998) and Skaperdas (2001) combine Schelling's perspective with rent-seeking contests.

References

BICC, 2001. *Demobilization & Reintegration: Opportunities for Human Development.* Summary from the Workshop on Demobilization and Reintegration in the Horn of Africa. Bonn: Bonn International Center for Conversion (http://www.bicc.de/demobil/brief4/summ.html).

Chabal, Patrick & Jean-Pascal Daloz, 1999. *Africa Works.* Oxford: James Currey.

Cilliers, Jakkie & Peggy Mason, eds, 1999. *Peace, Profit or Plunder? The Privatisation of Security in War-Torn African Societies.* Halfway House: Institute for Security Studies.

Collier, Paul, 1994. 'Demobilization and Insecurity: A Study in the Economics of the Transition from War to Peace', in Jean-Paul Azam, David Bevan, Paul Collier, Stefan Dercon, Jan Gunning & Sanjay Pradhan, eds, *Some Economic Consequences of the Transition From Civil War to Peace.* Policy Research Working Paper no. WPS 1392. Washington, DC: World Bank (39–45).

The Economist, 1996. 'The Backlash in Latin America: Gestures Against Reform', 11 November.

Fiorentini, Gianluca & Sam Peltzman, eds, 1995. *The Economics of Organised Crime.* Cambridge: Cambridge University Press.

Grossman, Herschel, 2001. 'The Creation of Effective Property Rights', *American Economic Review* 91(2): 347–352.

Hunter, Thomas, 1996. 'Colombia's Kidnapping Incorporated', *Jane's Intelligence Review* 8(12): 565.

Kingma, Kees, ed., 2000. *Demobilization in Sub-Saharan Africa: The Development and Security Impacts.* New York: St. Martin's.

Konrad, Kai A. & Stergios Skaperdas, 1997. 'Backing up Words with Deeds: Information and Punishment in Organized Crime', *Nordic Journal of Political Economy* 24(1): 51–64.

Konrad, Kai A. & Stergios Skaperdas, 1998. 'Extortion', *Economica* 65(260): 461–477.

Lane, Frederic C., 1958. 'Economic Consequences of Organized Violence', *Journal of Economic History* 18(4): 401–417.

Ledeneva, Alena V. & Marina Kurkchiyan, eds, 2000. *Economic Crime in Russia.* The Hague: Kluwer Law International.

Lock, Peter, 1998. 'Military Downsizing and Growth in the Security Industry in Sub-Saharan Africa', *Strategic Analysis* 22(9): 1393–1426.

Mehlum, Halvor; Kalle Moene & Ragnar Torvik, 2002. 'Predator or Prey? Parasitic Enterprises in Economic Development', *European Economic Review* (forthcoming).

O'Brien, Kevin A., 1999. 'Privatizing Security, Privatizing War? The New Warrior Class and Regional Security', in Paul B. Rich, ed., *Warlords in International Relations.* London: St. Martin's (52–80).

Olson, Mancur, 2000. *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships.* New York: Basic.

Reno, William, 1998. *Warlord Politics and African States.* Boulder, CO: Lynne Rienner.

Schelling, Thomas C., 1967. 'Economics and Criminal Enterprise', *Public Interest* 7(6): 61–78.

Schelling, Thomas C., 1971. 'What Is the Business of Organized Crime?', *Journal of Public Law* 20(1): 71–84.

Skaperdas, Stergios, 2001. *Warlord Competition.* Discussion Paper 54/2001. Helsinki: WIDER.

Spicer, Tim, 1999. *An Unorthodox Soldier.* Edinburgh: Mainstream.

Tilly, Charles, 1985. 'War Making and State Making as Organized Crime', in Peter B. Evans, Dietrich Rueschemeyer & Theda Skocpol, eds, *Bringing the State Back In.* Cambridge: Cambridge University Press (169–191).

Volkov, Vadim, 1999. 'Violent Entrepreneurship in Post-Communist Russia', *Europe–Asia Studies* 51(5): 741–754.

Volkov, Vadim, 2000. 'Organized Violence, Market Building, and State Formation in Post-Communist Russia', in Ledeneva & Kurkchiyan (43–62).

von Schnitzler, Anita; Goodwill Ditlhage, Lazarus Kgalema, Traggy Maepa, Thloki Mofokeng & Piers Pigou, 2001. 'Guardian or Gangster? Mapogo a Mathamaga: A Case Study', *Violence and Transition Series,* 3. Johannes-

burg: Centre for the Study of Violence and Reconciliation.

HALVOR MEHLUM, b. 1965, Dr. polit. in Economics (University of Oslo, 1999). Researcher at the Frisch Centre, University of Oslo (1999–); main interest: macroeconomics, development economics.

KARL OVE MOENE, b. 1949, Dr. philos. in Economics (University of Oslo, 1984). Professor, Economics Department University of Oslo (1984–); main interest: comparative institutions, development economics.

RAGNAR TORVIK, b. 1965, Dr. polit. in Economics (University of Oslo, 1996). Associate Professor, Department of Economics, Norwegian University of Science and Technology (1997–); main interest: macroeconomics, development economics.