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A Positive Theory of Predatory State

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Abstract

While the distinction between public and private goods is essential in developing a normative theory of non-predatory states, the focus of this paper is on a positive theory of predatory states. Since the predatory relationship between the state and its subjects depends on the power of the state to grab or to appropriate coercively and the subject's ability to escape or hide, the boundaries of the state are decided by the nature of the assets that can be taken more or less easily. Accordingly, I will introduce a new distinction between *captive* and *fugitive* assets that positively captures the frontiers of a state space. The US railroading in the nineteenth century provides an illustration regarding the explanatory power of an asset-appropriating perspective of the state compared to a public goods approach.

Keywords: Captive, Fugitive and Mixed assets, Coercive appropriation, Public goods, Predatory state, US railroading

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Introduction

In his insightful book on *Structure and change in economic history*, North (1981) suggested a simplified classification of two general types of theory about the state: 1) a 'contract theory' largely accepted by the mainstream economics in which "the state plays the role of wealth maximizer for society" ; 2) a 'predatory theory' of the state shared by a remarkably varied even contradictory schools according to which the state would specify "a set of property rights that maximized the revenue of the group in power, regardless of its impact on the wealth of the society as a whole." (Ibid, p. 22)

In the first type of theory, the boundaries of state intervention in economy are defined by the nature of goods and services. Public goods and services call for state intervention, and they are characterized by two properties namely *non-rivalrous* in consumption, i.e. the existence of a beneficial consumption externality; and *non-excludability* from consumption[1]. Accordingly, optimal boundary of the state action is decided by the scope of public goods and services. This is clearly a *normative* theory of the state's boundaries. But this theory does not explain how the boundaries of the state evolved in reality and how they were delineated throughout history. In fact, many so-called "public goods" (such as military security, highways, and lighthouses) have been provided privately (Coase, 1974), while some non-"public services" like postal service have been nationalized as for example in the US according to the Fifth Amendment of the Bill of Rights, and in England until 1969 during the General Post Office (GPO).

Moreover, four fifths of the contemporary states at a global level are authoritarian or 'hybrid' but still closer to a predatory state than a 'collective utility-maximizer' (Levitsky and Way, 2010). Although liberal democratic states in developed countries cannot be described as 'predatory', they all have a predatory core and background. Even a liberal democratic state is not entirely immune in reversing to its predatory core if certain conditions (checks and balances) are not respected. Indeed, the predatory nature of the state has been clearly acknowledged by the Fifth Amendment commanding: "nor shall private property be taken for public use, without just compensation."

The Amendment imposed two requirements for 'takings', namely 'public use' and 'just compensation' to tame the 'despotic power' of the state without excluding the need for an imperial domain. These two requirements assume that government behaves in a "socially benevolent way in making its taking decisions" (Miceli and Segerson, 2014, p. 6) or the government is democratically elected by the majority rule.

The 'public use' is not synonymous of 'public ownership' and the legislators are free to decide "whether private enterprise might be a better vehicle than governmental agencies to effectuate

[1]Samuelson (1954) pioneered the formalization of 'collective consumption goods' versus 'private consumption goods', but according to Desmarais-Tremblay (2014) the two-dimensions of public goods have already been adumbrated by Musgrave in 1939. Moreover, Musgrave (1969) formulated the 'free-riding' problem as an explanation of market failure in the case of public goods, and Musgrave and Musgrave (1973) originally conceived a two by two table as a pedagogical device for classifying different families of goods according to the possibility of satisfying both or only one of the two criteria, i.e. *non-rivalrous* and *non-excludability*.

the public interest." (Ely, 2003, p. 32). In fact, the history of railroading in the US is particularly instructive to show how 'public use' was interpreted as the accomplishment of public goals rather than public means to attain them. In this case, the 'public use' requirement implied the empowerment of private railroads to appropriate land in the name of *public interest*. The question is then to examine which theoretical framework can provide a better explanation of the US railroading: a 'public goods' or an 'asset-appropriating' perspective? This example is particularly relevant since it involves the formation of a massive army in the US as provider of another so-called 'public goods' namely military security.

While the distinction between public and private goods is essential in developing a normative theory of non-predatory states, the focus of this paper is on a positive theory of predatory states. My line of inquiry is about what the boundaries of a state *are* rather than what they *ought to be*. My assumption is that the distinction between public versus private goods does not have a strong explanatory power in defining the frontiers of a predatory state as they *are* or as they have evolved throughout history. In practice, the boundaries of the state are determined by the appropriability of assets. However, it is equally true that the appropriability of assets are determined by the boundaries of the state. Appropriability, in other words, is endogenous. While public choice economists have extensively explored the predatory origins of the state (see for example, Olson and McGuire, 1995 and Leeson and Williamson 2009), the impact of asset-appropriability in delineating state space is insufficiently studied. The present paper tries to clarify this latter issue.

In doing so, we first need to investigate the nature of coercive appropriation and show why they cannot be treated as if they were voluntary transactions. This will bring us to grasp the difference between the *economic* value of an asset and the *booty* value of an asset. Indeed, what matters for the state is the *booty* value of an asset (i.e. the amount of value that can be transferred or allocated through coercive capture of the asset) regardless of its economic value.

Since the predatory relationship between the state and individuals depends on the power of the state to grab or to appropriate coercively and the ability of the subject to resist or escape, the boundaries of the state are decided by the nature of the assets that can be confiscated more or less easily. Accordingly, I will introduce a new distinction between *captive* and *fugitive* assets that positively captures the frontiers of a state space.

The structure of this paper is as follows. The first section discusses coercive appropriation and disentangles the booty value of an asset from its economic value. Section two identifies captive and fugitive assets. Section three shows how state space is determined by captive rather than public assets. Section four provides an illustration of asset-appropriating perspective of the state by focusing on the railroading and military security in the first century of the US Republic. A short conclusion will follow.

1. Coercive appropriation and the booty value of an asset

By coercive 'appropriation', I mean 'capture by force' or *involuntary* redistribution that includes state's confiscation, expropriation, extortion and theft. Other modes of appropriation such as acquisition by market transaction, donation, inheritance, and option value of financial assets assume voluntary transactions[2] in which the state as the third party violence-using agent plays the role of 'definer' and 'enforcer' of property rights (McChesney, 2003). The state enforcement of property rights contributes to the formation of economic value of an asset. Indeed, according to the property rights approach, the value of an asset is not determined by its *physical* properties, but rather by the allowed *rights of action* over the asset. "(T)he value of what is being traded depends upon the allowed rights of action over the physical good and upon the degree to which these rights are enforced." (Demsetz, 1964, p. 18). The right of action depends on the degree of enforcing rights. For example, what is the degree to which auto theft is prohibited determines the value of the car. If the law is lenient towards auto theft, and private protection devices are not allowed (or restricted), the car price will fall below the social value of the automobile. "Enforcement thus becomes the specification of additional rights" (Demsetz, 1964, p. 19). But absent of law and state enforcement, could we speak of 'rights' and hence economic value of an asset?

Barzel's answer to this question is affirmative. Since his pioneering book (Barzel, 1997), he has distinguished 'legal property rights' from 'economic property rights'. The former "regards assets the state recognizes as belonging to particular individuals," while the latter "indicate what one can do with properties…Whoever actually drives the car over which I have legal rights has economic rights over it, be it myself, a person I authorized to use it, or a thief, though if it is a thief, the state will help me to recover it." (Barzel, 2015, p. 2).

Recently, Hodgson (2015) has objected to Barzel's distinction, since according to him Barzel conflates 'possession' with 'property'. "[B]y *possession* here we refer to use or control, without reference to, and imputation of, any kind of legal or moral rights…*property in its truest sense has another prerequisite- the political authority of the state*." (Hodgson, 2015, p. 6, emphasis is added). Accordingly, a car's thief has 'possession' over the car without having 'property rights' over it. The term 'possession' is limited to having *physical* control over a thing without having a 'legal' or a 'moral' right over it. By contrast, property designates a 'lawful' right (a formal state law) over a thing. Although such a distinction is uncontested as a scholarly convention, its justification in legal literature is questionable. In fact, in legal literature, property and possession cannot be differentiated with regard to law protection since possession is always assumed to be under legal protection. As Merrill (2015, p. 34) emphatically avers: "Because ownership and possession often coincide, and because the law protects both ownership and possession, the concepts of possession and ownership will often interact". The law often draws upon and integrates the concept of possession into the law of property. The interactions between 'possession' and 'property' in determining ownership are numerous and legal literature on 'delivery requirement', 'security interests', and 'adverse possession' would be meaningless if we adopt Hodgson's definition of possession (see the edited volume of Chang, 2015).

Although Hodgson's conventional distinction between 'possession' and 'property' violates the legal terminology that has been established since the publication of Pollack's and Wright's *Essay on Possession in the Common Law* (1888), he is right in arguing that Barzel's distinction between 'economic' and 'legal' rights contradicts legal definition of 'rights' (Cole and Grossman, 2002). Indeed, it is not clear what constitutes the 'right' in Barzel's 'economic

[2] In organization theory, 'appropriation' often refers to post-contractual opportunist behavior *within* voluntary transactions (Klein, Crawford, and Alchian, 1978). This type of 'appropriative' activity does not come within the scope *of involuntary (coercive) transactions*.

property rights'. In Hohfeld's (1913) theory of jural relations, if one person holds a 'right' to something, at least one other person must have a corresponding 'duty' not to interfere with her possession and use. What is the thief's 'right' over a stolen asset that implies an 'obligation' for others? Claiming property over an asset on the basis of using it is not synonymous of having a property 'right' since "A property *claim* becomes a property *right* only when it is socially or legally recognized as such, signifying the voluntary acceptance and enforcement of concomitant duties of noninterference." (Cole and Grossman, 2002, p. 325).

Demsetz (1967) has also emphasized the central role of *social consent* and concomitant duties of noninterference in defining rights. But rights do not exist only on the basis of *state recognition*; they can exist in contractual relationship between individuals outside the state. In other words, property is a *social* fact and not necessarily a formal state entitlement. "There is no divine right of kings which suspends the ordinary rules of right and obligation between individuals in the state of nature. The sovereign has no absolute power to generate rights." (Epstein, 1985, p. 12).

The problem with Hodgson's definition of 'property rights' is that it puts a unilateral emphasis on formal state entitlement and hence it mystifies the state and disregards the *predatory* laws and *predatory* states. A good illustration is the way Germany's Fascist state robbed Jews (1933-1945) (Dean, 2008). The Nazi authorities tried to seize not only all Jewish property but also to give these confiscations at least a veneer of legality. Hence, robbing the Jews proceeded in two acts: 1) Aryanization of the economy; 2) the confiscation of Jewish property by the state. Aryanization preceded and prepared the way for 'legal' confiscation, converting various forms of Jewish wealth into bank accounts or investments that could be accurately assessed by the German Ministry of Finance and then easily confiscated by the state. According to Hodgson's definition of property rights, the Jews properties had to be regarded as their 'possession' and the 'property' of the state looters as soon as the Fascist state adopted the Jewish confiscation law. This legalistic interpretation is misleading as Agamben (2005) correctly argued, since the Fascist state represented a 'state of exception' in which the direct use of force escapes from 'rules' and 'laws'. In dire contrast with a predatory state, acephalous (stateless) societies are not devoid of 'rights': their tribal relationships based on reciprocity delineated rights and obligations on the basis of social routines and customs (Scott, 1976, 2009).

Moreover, 'legitimacy' and 'state enforcement' are not the same. As Gore's (1993) critical review of Sen's work shows, the state-enforced legal rules are insufficient to capture what the advocates of moral economy have shown with regard to the eighteenth century food riots in England (Thompson, 1971), namely *legitimate but illegal informal rules*. Food rioters were not 'looters', but enforcers of a 'just price'. Their action was legitimate though illegal. In a moral sense, they had the 'right' and the state lacked 'right' although it had the physical force to control the food provision.

Contrarily to Hodgson, Barzel correctly does not limit 'rights' to the emergence of the state. 'Rights' particularly economic ones might exist in the pre-Hobbesian 'state of nature'. However, Barzel's distinction suffers from a major problem: it conflates *consensual* and *involuntary* transactions (Vahabi, 2011). Barzel's referential model for economic 'rights' excludes 'obligations' since it assumes away *social consent*. It begins with a Hobbesian state embracing conflictual and coercive relationships. "The model's onset is at a time that *precedes any voluntary social interactions*. Individuals lived then in a Hobbesian "state of nature." Those who survived obviously were able to keep at least some of what they gathered and hunted."

(Barzel, 2002, pp. 267–68, emphasis added). According to Barzel (2002), individuals initially have no legal rights over the assets they acquire, as no legal institutions exist. However, they have (at least partially, by might) "economic rights" akin to Hobbes's "natural rights" over these assets. "Indeed, you own today even the apples you intend to steal from your neighbor's tree tomorrow. Because the chance is positive that assets will be captured or stolen, assets that may appear fully owned are owned only in part. The probability that an asset will be stolen (or captured), as well as the level of its protection, will depend on its value" (Barzel, 2002, p. 15).

Violent appropriation however, cannot be treated as if there exists a voluntary transaction between the robber and the victim. As Olson (2000, p. 3) wrote: "For our focus on coercive power and our analysis of self-interested behavior, I use a criminal metaphor. Clearly, we cannot understand robbery as either a voluntary trade or a moral act, and thus it helps us to focus only on the self-interested use of coercive power". Contrarily to Barzel's definition of 'economic rights', these rights only include exchanges through voluntary transactions (or by *economic* means), and preclude involuntary reallocation of resources through supra-economic force. What is the difference between these two? Violent appropriation assumes a predatory relationship in which the reallocation of assets from the predator's viewpoint depends on two factors: 1) *Appropriability*: the predator's ability to appropriate assets that determines the benefits of appropriation; 2) *Resistance*: the prey's resistance to thwart appropriation or escape that decides the costs of appropriation. The difference between the benefits and costs of appropriation defines the *booty value of an asset*.

By contrast, in a voluntary transaction based on consensus and mutual advantage, the parties economize on the conflictual costs of appropriation. The *economic value of an asset* is defined by the value of an asset through a voluntary exchange. In this way an asset has two values: 1) an *economic value* through voluntary transaction; 2) a *booty value* through involuntary transaction.

From an anti-predatory perspective, the more an asset is *mobile or invisible* (i.e., having hidden ability), the more it is resistant to confiscatory (appropriative) policies. Although mobility and invisibility are two different properties, they share a common quality in the context of predation: inaccessibility to be tracked down. I will use the term mobility in a broad sense to include the invisibility or the hidden ability of an asset. Movable assets can exit more easily than immovable assets. Assets might be more or less classified into 'escape' and 'captive' according to their higher or lower booty value.

2. Escape and captive assets[3]

Many economists noted the importance of mobile assets in restraining and controlling the power of tyranny (e.g., Domar, 1970, pp. 21-26; Friedman, 1977, p. 63; Bates and Lien, 1981, pp. 53-64; De Long *et al.*, 1993, pp. 681, 688), but Hirschman's systematic work on 'exit' versus 'voice' became a cornerstone in inspiring recent economic literature on the relationship between democracy and mobile assets[4]. While this literature is my building block in developing a

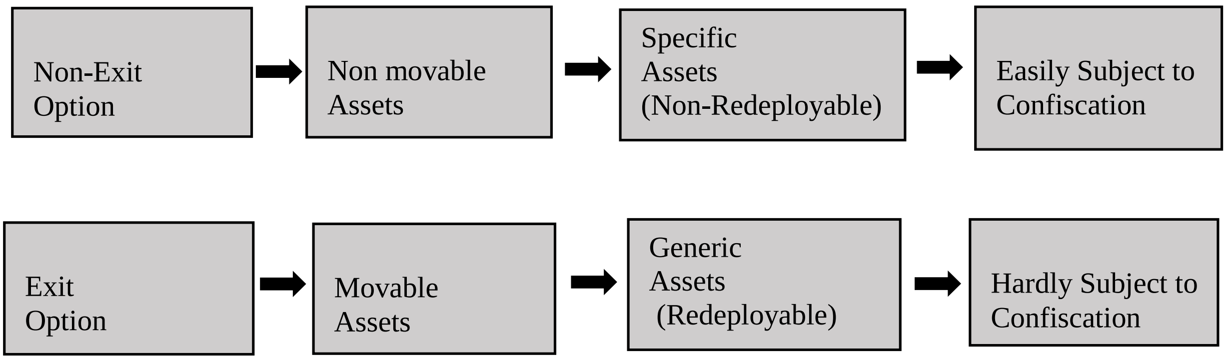
[3] Sections 2 and 3 of the present paper are based on chapter 6 of my forthcoming book (Vahabi, 2016). They have been extensively modified in this version.

[4] The list of thinkers and philosophers in the eighteenth and nineteenth centuries who underlined the role of asset's mobility is very long. Hirschman (1970, [1977] 2013) provided many excerpts from Montesquieu, Sir James Stuart Mill, and Adam Smith in which they defined money, notes, bills of exchange, stocks of companies, ships, all commodities and merchandises as 'movable assets' that could escape from tyranny and imposed restraint on it.

positive theory of predatory state, it suffers from a fundamental confusion between two distinct properties, namely ‘appropriability’ and ‘mobility’. The former pertains to the state’s ability to prey, the latter refers to the prey’s ability to escape. ‘Mobility’ of an asset provides a means to escape but it does not necessarily imply a lesser ability of the state to appropriate a mobile asset. Consider two movable assets, for example gold and expert knowledge. While the former is easily subject to the state’s confiscation, the latter is not. Factors that determine ‘appropriability’ are not the same as those that influence ‘mobility’. Hence, we need to scrutinize specific factors that affect ‘mobility’ and ‘appropriability’.

In the recent body of works, mobility is often related to the specificity of assets. I will argue that while the specificity of assets affects ‘appropriability’, it has no bearing on ‘mobility’. Borrowing upon transaction costs economics, this new literature describes ‘unmovable’ assets as *non-redeployable* or *specific assets* and ‘movable’ assets are qualified as *redeployable* or *non-specific assets*. This description suggests a synthesis between transaction costs economics and Hirschman’s exit and voice theoretical framework resulting in two main ideas that are captured by the following two schemes (see Figure 1).

Figure 1. Exit option and asset specificity



First, unmovable assets associated with the non-exit option are specific, non-redeployable and easily subject to confiscation.

Second, movable assets related to the exit-option are generic (non-specific), redeployable and hardly subject to confiscation.

It is noteworthy that while this synthesis has never been advocated neither by Williamson (1976) nor by Hirschman (1978)[5], it has been recently supported by other scholars in economics

Hirschman (1978, p. 98) also cited Turgot regarding the role of the emigration of persons in addition to capital in enhancing democracy. Bates and Lien (1985) added several other scholars, including Quesnay, Mirabeau (p. 60) and Marx (p. 53); the latter stating that capital was the most mobile factor of production. More recently, Boix (2003, p. 227) alluded to Hirschman’s reference to Montesquieu and Turgot hailing mobile capital as a way of curbing the sovereign’s power, and added to this list Barrington Moore (1966, p. 418) who reasoned in the same line and wrote: “No democracy is possible without a bourgeoisie.”

[5] Although Williamson (1976) emphasized complementarity between the two theories in comparing markets and firms (hierarchies), he underlined differences regarding the background and orientation of the two approaches and particularly noted: “The antecedent tradition on which EVL [*Exit, Voice and Loyalty*] relies is a mixture of politics and economics, the former of which is rather diffuse.” (Williamson, 1976, p. 371, brackets added). It is true that

and political science (Rogowski, 1998; Boix, 2003; Acemoglu and Robinson, 2006; Clark and McGirr, 2010; Connolly, 2012; Freeman and Quinn, 2012). Rogowski (1998, p. 53) wrote: "The cost of exit is affected, in politics as in economics, by at least two things: actual conversion costs (acquiring new equipment or skills) and write-off of non-redeployable assets (incompatible or highly specific equipment)." Rogowski's insightful analysis of 'conversion costs' notwithstanding, the use of asset specificity in discussing political exit is misleading. Boix (2003) does not explore 'conversion costs', but follows Rogowski in analyzing the causal relationship between exit (mobility) and political regimes in terms of asset-specificity (non-redeployability). In his opinion, the process of economic development is the story of a shift from a "complete asset specific" (non-redeployable) economy based on agriculture (landed property) to a "relatively non-specific asset" (redeployable) economy built on industry and commerce (Boix, 2003, pp. 38-43). He claims that the origins of democracy relies on the interaction of inequality and asset specificity. In Boix's historical account, as asset specificity declined, the constraining effect of inequality on democracy lessened and the extension of the franchise became a much less painful option to the owners of industrial capital.

In my opinion, this new synthesis is misleading, since it misinterprets the relationship between asset-specificity and vulnerability to confiscatory measures, and it elides the difference between economic asset-specificity and political mobility (exit). Clearly speaking, I claim that: 1) the higher the level of asset specificity, the lower the value of confiscated assets will be; 2) the economic asset specificity (i.e. non-redeployability) has no bearing on the political mobility of an asset. Before substantiating these points, I must clarify my definition of asset-specificity and political exit. In defining 'asset specificity' in terms of non-redeployability due to a particular investment, I follow Williamson (1985)[6] and by 'political exit', I assume an exit from a given state space[7] as Hirschman (1978) suggested.

My first point holds that specific or idiosyncratic assets are almost non-appropriable. The story of Ghazali[8] and the robbers elucidates this claim.

"[Nizam al-Mulk] told the story of how the Imam Abu Hamid al-Ghazali, the Sufi once traveled to Abu Nasr al-Ismaili in Gurgan and how he took notes from him…When he returned to Tus, he was robbed on the road and his notes were taken away from him. He said to the captain of the highway-robbers: "Return my notes to me!" He asked: "What are these notes?" Al-Ghazali answered: "A bag in which are the books of my studies." [Al-Ghazali said]: "And I told him my story. So he asked me: How can it be that you have learned things that you get rid of when this bag is taken away from you? And now you remain without knowledge?" Then he returned it to me. I said: "He was sent by God to alert me and guide me towards what is best for me. And when I entered Tus, I turned my attention to this for three years until I had memorized all my notes in a way, would I have been robbed I would not have been deprived of my knowledge." (Cited in Giffel, 2009, p. 28).

Williamson (1975) had not sufficiently explored the asset specificity dimension in delineating the frontiers between markets and hierarchies as he did in his later works (Williamson, 1985).

[6] For more details about asset specificity in Williamson, see Vahabi (2011).

[7] The state space may or may not be national. Following Scott (2009), the effective 'state space' should not be equated with its formal political frontiers.

[8] Abu Hamed Mohammad ibn Mohammad Ghazali (1058-1111), known as Al-Ghazali or Algazel to the Western medieval world, was an Islamic Persian theologian, jurist, philosopher and mystic born in Tus, a small village near Mashhad in the eastern part of Iran.

Ghazali's story about acquiring a non-stealable knowledge pertains to a particular type of asset specificity, namely *human asset specificity*. A bag full of books and notes can be robbed but your personal knowledge is not 'stealable' and cannot be confiscated. That explains why any authoritarian regime needs to be tolerant towards and compromise with experts if it wants their help and collaboration; otherwise, it has to slaughter them as Pol Pot's regime did in Cambodia. Moreover, experts can more easily emigrate. Brain drain is usually the result of tyranny or warfare.

Therefore, human specific assets are both movable (capable of political exit) and non-stealable or hardly subject to confiscation (Pagano, 2014). In this sense, human specific assets are *escape assets*. By escape assets, I mean assets that have two properties:

1) *Mobility*: they are movable, i.e. capable of escaping from a given state space, since they can be easily hidden or displaced geographically. Movability also refers to the possibility of altering political (authority) allegiance without any physical (geographical) displacement.

2) *Non-confiscable*: they are hardly subject to confiscation in the sense that i) any attempt to transfer property rights through coercion destroys the asset or reduces its value to almost nil[9]; ii) the costs of confiscation is higher than the benefits of confiscation.

Specific investment in physical capital is another source of asset specificity. But physical capital, i.e. plants, machines and equipment cannot easily emigrate[10]. In this sense, they are less movable. Adopting Boix's definition of asset specificity as the "cost of moving capital away from its country of origin" (2003, p. 3), physical capital is highly specific[11]. The major question is not whether they are *movable* but whether they are easily subject to *confiscation*? The answer is negative, since the continuation of particular investments requires specific entrepreneurial capabilities including marketing, financing, monitoring, coordinating and networking abilities. In the absence of these capabilities, the investment will shortly stop and specific assets break down into generic assets losing if not the whole, at least most of their value. As I showed in Vahabi (2011), highly specific assets are less vulnerable to strong opportunistic behavior (such as theft and predation) *outside* the contractual relationship, and are more prone to subtle forms of opportunistic behavior (such as moral hazard and adverse selection) *within* the contractual relationship. In other words, specific investments in physical capital are hardly subject to confiscation. This type of specific assets cannot be qualified as *escape assets*, but they are not *captive assets* either. By *captive assets,* I mean assets that have two properties: 1) they are

[9] Angell [1910] 2012 devoted a whole chapter on the "impossibility of confiscation" (chapter IV) and wrote: "If credit and commercial contract are tampered with in an attempt at confiscation, the credit-dependent wealth is undermined, and its collapse involves that of the conqueror; so that if conquest is not to be self-injurious it must respect the enemy's property, in which case it becomes economically futile." (p. 2). The same is true with specific human capital. It is extremely hard to force experts to collaborate with a government. Bolsheviks were extremely prudent in dealing with 'bourgeois experts', Pol Pot preferred to exterminate them.

[10] The frontier between 'movable' and 'unmovable' is not rigid. A previously unmovable asset can transform into a movable one depending on the level of technological and organizational progress. In our time, plants, machines and equipment can 'emigrate' overnight from one country to another to take advantage of cheaper labor costs if the government permits such a movement and does not proceed to the expropriation of assets. This is called 'delocalization' as part of the process of globalization. Physical capital investments like human capital assets are becoming increasingly movable. However, even in the era of globalization, physical capital is less movable than liquid capital.

[11] I do not accept Boix's definition of asset specificity and rather prefer that of Williamson (1985) for whom specificity does not only refer to asset's physical quality, but also to contractual relationships.

unmovable in the sense that they are not invisible or capable of escaping from a given state space; 2) they are easily subject to confiscation.

Landed property, oil fields and other minerals are salient illustrations of captive assets. Contrary to Boix's claim, these assets are not necessarily specific. In fact, they are often generic in the sense that they are not the product of a particular investment. Landed property devoted to agriculture is a case in order. This type of basic agricultural activity since the birth of civilization does not come within the scope of specific assets. It is a purely generic asset. It was much later that agriculture became industrialized and transformed into specific assets. In other words, in contrast to Boix's historical account, human civilization started by *generic* assets and evolved to *specific* assets through a long historical process. Similarly, once necessary investment was engaged in extracting oil and other minerals, they transformed into specific assets. However, the most important fact about these assets is not their specificity but rather their value as generic primary raw materials. This category of assets are *captive* since they are both appropriable and unmovable.

There is no general rule about the relationships between escape assets and asset specificity. I showed that human specific assets are part of escape assets, but physical capital assets are not. However, the latter are not captive assets either. Generic assets, like sweet potatoes are typical examples of escape assets: "A reliance on root crops, and in particular the potato, can insulate states as well as stateless peoples against the predations of war and appropriation…Enemy armies might seize or destroy grain fields, livestock, and above ground fodder crops, but they were powerless against the lowly potato, a cultivar which Frederick William and Frederick II after him had vigorously promoted. It was the potato that gave Prussia its unique invulnerability to foreign invasion." (Scott, 2009, p. 196). Other examples of escape crops are roots and tubers (having the hidden ability) such as yams, cassava, manioc, and yucca. Many *generic crops* that do not need any attention can be labelled as 'escape crop': "Cultivars that require little attention and/or that mature quickly are also state repelling inasmuch as they afford more mobility than labor-intensive, long-maturation crops." (Ibid, p. 196). Thus, escape assets might be generic or idiosyncratic.

Similarly, captive assets might be generic or specific. Landed property is unmovable (and part of 'fixed capital') but not a specific asset. It is rather a *generic asset* easily vulnerable to confiscation and hence a *captive asset* according to my definition. But *specific assets* related to particular investment in extracting raw materials and minerals are also *captive assets*. My contention is that while asset-specificity is germane in determining the level of appropriability, it is not relevant in distinguishing assets with regard to their mobility (*political exit)*. In the next section, I will argue that the frontiers of a predatory state is decided by assets' structure in terms of *captive/escape* assets rather than *public/private* assets.

3. State space and assets' structure

The asset-appropriating perspective of the state opens a new door in analyzing state space; instead of private versus public, it suggests an investigation about the property of assets to be less or more easily captured. Considering the two criteria, appropriability and mobility, all assets may be regrouped in four major categories: 1) *pure escape assets* that satisfy both mobility and non-appropriability criteria; 2) *mixed escape assets* that satisfy the mobility criterion and are appropriable; 3) *mixed captive assets* that satisfy the immobility criterion and are non-appropriable; 4) *pure captive assets* which satisfy both immovability and appropriability criteria. In reality, state space is not decided by goods and services that are non-excludable and non-rivalry but rather by appropriable and unmovable assets. Captive assets, and not necessarily public goods, determine the state space.

While pure escape assets (category 1) are out of the state space, and pure captive assets (category 4) belong to the state space, the 'mixed escape assets' as well as the 'mixed captive assets' (categories 2 and 3) are *intermediary assets* and have an ambivalent position with regard to the state space. They can become part of a state space or do political exit; all depends on the outcome of the bargain between the state and the owners of these assets.

In the case of 'mixed escape assets', the owners of assets can use their 'exit power' to take advantage from rival predatory states to lower down the amount of protection rents (tribute) that they should pay to protect their appropriable goods against potential threat of confiscation by local authorities or by pirates and armed bandits. This 'exit power' of merchants and financiers pertains to their ability to substitute a provider of protection for another in virtue of the mobility of their assets. In this sense, a price competition *à la* Tiebout (1956) ensues in the protection market among providers of protection (king, lord or religious authorities) to attract consumers of protection (merchants, financiers, industrialists) (Pietri *et al.*, 2015).

The owners of 'mixed captive assets' do not have such *exit* power, but the value of their assets and hence the amount of the state's revenue or taxes depends on their *entry* on the market. Their power is an 'entry power' that gives them the opportunity to bargain with the state to commit itself credibly *ex ante* to guarantee the security of physical capital investment by promulgating laws and regulations as well as by granting them different types of pledges and privileges. Table 1 summarizes these four categories of assets with regard to a given state space.

Table 1. Types of assets and state space

Type of assets	Mobility (including hidden ability)	Appropriability	State or non-state space	Examples
1. Pure Escape assets	Yes	No	Non-state space	Human specific assets, "famine" goods (e.g. sweet potatoes)
2. Mixed escape assets	Yes	Yes	Ambivalent	Notes, money, gold, commodities and merchandises
3. Mixed captive assets	No	No	Ambivalent	Physical capital investment
4. Pure captive assets	No	Yes	State-space	Landed property, oil

Following Scott, by "famine" foods, I mean oats, barley, fast-growing millets, and buckwheat that "were tolerant of poor soils, high altitudes, and short growing seasons, as were cabbage and turnips, and allowed people to settle at higher altitudes than hill rice would permit. Old World roots and tubers, taro and yams, as well as the sago palm, were also favored by nonstate peoples." (Scott, 2009, p. 199). These famine goods were both *movable (hidden)* and *non-*

appropriable and belonged to poor and stateless people. Contrary to them, the owners of *movable but appropriable* goods, were the rich. They could use their exit power to exact concessions from the state. In this sense, they were not 'out' of the state, but could threaten not to be 'in' the state.

Although table 1 provides a general nomenclature for all goods, I do not pretend that all goods can be put into one of the boxes. In fact, some goods cannot be clearly classified as only one of the above mentioned categories. 'Lootable' goods are among these products. The term 'lootable goods' is coined by Le Billon (2001, p. 569) to describe primary commodities that "are often highly amenable to taxing and looting. This *lootability* arises in part from the fact that resources, and in particular extracted ones, are often easily accessible to governments and rebels alike with minimal bureaucratic infrastructure. Furthermore, resource extraction activities are, to a greater degree than other economic activities, spatially fixed." Gemstones (diamonds), narcotics (opium, cannabis, coca), and timber are cited as illustrations of 'lootable' commodities (Ross, 2004).

These goods are distinguished from oil as a primary commodity[12]. Although lootable goods are spatially fixed, they are "lucrative and easy-to-transport resources" (Snyder, 2006, pp. 943-944). They can be considered both as 'pure captive assets' or 'mixed escape assets' according to the way they are classified with regard to mobility. Since the source of lootable products is *spatially fixed*, they may be regarded as 'pure captive assets'. However, because of the *high ratio of value to weight* (easy-to-transport) of the extracted resources, they might be viewed as movable and pigeonholed as 'mixed escape assets'. This duality is interesting since in countries dependent on narcotics or diamonds, drug smugglers behave as statesmen and statesmen behave as drug lords as if the frontiers between state and non-state spaces are conflated for the same and unique states/bandits.

What are the determinants of 'mobility' and 'appropriability'? I start by mobility (including invisibility) of persons and assets. There are costs and benefits attached to mobility. The benefit of 'mobility' or *flight* is a considerable reduction in protection costs and its costs are *conversion costs* including the costs of adaptation to the new environment and acquiring new skills[13]. As Scott (2009, p. 33) eloquently averred: "Physical flight, the bedrock of popular freedom, was the principal check on state power." Mobility of persons or their 'exit power' has always been a means to escape manhunting by changing location or allegiance. In discussing 'mobility' as a means of flight, one should not ignore its joint product, namely the power to hide. This power hinges upon three factors and their respective conversion costs: 1) physical or geographical change in location; 2) allegiance shift; 3) human asset specificity or skills.

Since the state has a power gradient depending on the remoteness from the state center (Boulding, 1960), there are geographical zones over which the state exercises less influence. These areas are inaccessible or hardly accessible for the state. Steep hills, marshes, tropical forests and deserts have always been natural refuge zones for escapees throughout history. People living on the borderlines of two or several states also detain an advantageous position in terms of mobility by crossing the frontiers (e.g., Kurds and Baluchis). They may profit from

[12] In his survey of empirical studies about the relationship between natural resources and civil war, Ross (2004) underlines that oil increases the likelihood of conflict and notably the initiation of separatist conflicts, whereas 'lootable' commodities as a source of revenue for contending parties contribute to a lengthier duration of conflict.
[13] A detailed study of different components of conversion costs is out of scope of the present article. For an analysis of different components of 'conversion costs' see Vahabi (2016, chapter 6).

their exit power to reduce the amount of taxes. A salient illustration is discussed by Douglass North (1981) regarding lower taxes imposed upon border areas in medieval Burgundy due to competition between feudal lords. The social organization may also contribute to geographical mobility or the power to hide. While peasants are sedentary, pastoral nomads are not. In pursuit of pasture for their herds and flocks, they constantly move over long distances and often raid sedentary people and states. Pastoral nomads aggregated into tribal confederations have always been a menace for sedentary civilizations and states or provided the military bone of vast empires like the Persian Empire. Conversely, the ability of tribal confederations to disaggregate into smaller and decentralized tribes (e.g., the Qashqa'i of Iran[14]) has been a way to hide against the menace of centralized states or imperial powers.

Exit is not systematically associated with a physical move. People can decide to disown a provider of protection in order to be protected by another one. Concretely this behavior is a betrayal that is not rare throughout history. Germany during the Thirty Years' War and throughout the nineteenth century is a good example of how several violence-using agents (lords and vassals) can compete in demanding payments for protection in almost the same territory (Lane, [1958] 1979, p. 51; Volckart, 2000, p. 2). Hence, even geographically attached people might be 'mobile' in the sense that they have an 'exit power' and can choose their provider of protection.

Finally, human asset specificity is a third determinant in measuring agents' exit power. Experts and professionals have a higher level of productivity due to their knowledge and skills. Their asset is non-appropriable, and often highly demanded by different states. They have, therefore, a higher level of exit power.

Asset mobility is defined by the *high ratio of value to weight and volume* (value/weight and volume). The greater this ratio is, the greater the distance over which an asset might be traded. The reason is that a higher ratio means a greater amount of traded value covering the costs of transportation incurred in longer distances. Historically, distant trade was generated on the basis of this type of products. Leeson (2007, p. 313) cites ivory, rubber and wax as "thievable" goods. "Lootable" goods are other examples of this category of goods in our times. Precious commodities such as silk, gold, gemstones, aromatic woods, pepper, rare medicines, and tea were non-bulky goods that were worth being transported for long distance. They linked centers to peripheries on the basis of exchange rather than political domination.

Capitalist production proliferated and increased the number of movable assets such as money, notes, bill of exchange, stocks of companies, ships, all commodities and merchandises in the world market. These goods are easily appropriable. It is not by chance that security concerns became overriding with the ascendancy of the urban dwellers of the third Estate particularly the commercial, manufacturing and professional middle classes. Unlike the old aristocracy, their interests were more immediately tied up with movable property. They were more in need of security and protection against urban crime. Starting from the last decade of the seventeenth century, the authorities of the city of London, even then a center of commercial and financial capital, run for establishing a more effective administration, new legislation and punishments against criminal activities of the menacing poor urban[15] and other "dangerous classes". The adoption of the Poor Law in England, and the creation of an organized police force for

[14] See Beck (1990).

[15] Regarding security in London during the early modernity, see Beattie (1985).

manhunting criminals, brigands, and other "dangerous classes" (Chamayou, 2010) were all the outcome of violent enforcement of property rights to secure movable assets.

Appropriability is the second underlying criteria for demarcating escape from captive assets. Four principal[16] determinants are germane in making assets more or less appropriable: 1) state accessibility of assets; 2) concentration or dispersal of assets; 3) asset specificity; 4) assets' measurability.

1) *Accessibility* is the first determinant of appropriability. From the predator's perspective, the economic rationale of the state space hinges upon its ability to appropriate and organize the administrative allocation of goods and services or what is known as *state-accessibility*. Two principal factors are relevant in determining state-accessibility: 1) geo-political location; 2) industrial and military technological progress in means of transportation, communication and strike zone.

The state-space is primarily conditioned by its *geo-political location*. Valleys were the birthplace of states. Indeed, before the *military* revolution in the sixteenth and seventeenth centuries, power was about the number of manpower that a ruler had under its command. Territorial power was thus based on arable land and density of population. Agrarian states like Sparta and Syracuse were built on two types of assets: grain and manpower (Scott, 2009). As mentioned earlier, hills, deserts, tropical forests, marshes and swamps were not easily accessible by an agrarian (valley) state and were often used as refuges for fugitives. In the pre-modern world, while high hills and mountains separated people, rivers and seas could join them. The maritime routes were faster, and cheaper in transporting bulky cargos. In addition to manpower, access to strategic chokepoints was another major source of power, allowing the control of land and naval routes. A maritime state like Athens immensely profited from its superiority in controlling the nodes of communication and transportation.

The second factor influencing the state-accessibility is *technological* and *organizational progress* particularly in the field of communication, transportation, and military strike zone. The power of a ruler depends on its omnipresence that requires total mobility and an ability to see and to hear everything without being visible to others. Mobility, invisibility, and omnipresence are the sources of predatory power. Accordingly, the state domineering capacity principally depends on its technological and organizational accessibility and pertaining to the level of development in both civil and military means of transportation and communication over land, sea, and air. As Onorato *et al.* (2014, pp. 451, 452) convincingly showed: "[C]hanges in communications and transport technology, and in particular the invention of the railroad, were the most important factors in ushering in an era of mass warfare…Though our results for cruise missiles are subject to more caveats, they are nonetheless consistent with the view that communications and technology advances in the second half of the twentieth century led countries to field substantially smaller forces." Contrarily to geo-political location, technological and organizational progress in the means of transportation and communication is *endogenous* and influences the extension of administrative allocation of goods and services.

[16] There are many other secondary factors such as 'storability' or 'perishability' of assets, their 'vulnerability to disease', and their character as 'labor-intensive' or 'capital intensive' that impact the appropriability of assets (regarding the impact of these factors on crops see Scott, 2009, pp. 202-204). However, I will only focus on primary factors influencing all types of assets (physical as well as pecuniary ones).

2) Concentration or dispersal is the second determinant of appropriability. The more concentrated assets are, the more accessible and appropriable they are. In fact, concentration contributes to economies of scale in the state provision of services and goods. Moreover, concentration facilitates central administration of resources. By contrast, the more disperse assets are, the costlier will their access and appropriation be. A few concentrated industries are much easier to be confiscated than several thousands of small shops (Kautsky, 1903, Vol. II). Dispersion is the enemy of appropriation for two reasons: i) it increases invisibility; ii) it augments the costs of accessibility and measurement.

3) The third determinant is *asset specificity*. An asset is more vulnerable to appropriation when it is more generic, since it can be more easily redeployed without the loss of value. The appropriation of an asset becomes more difficult when it is more specific, since its redeployment will incur the loss of quasi-rents deriving from specific investment. Generic assets are more liquid than idiosyncratic assets. It is much more difficult to steal the knowledge one possesses rather than the books one possesses. Another illustration is the preference of a pickpocket for cash money rather than a traveler's check, since the latter is a more idiosyncratic means of payment. The appropriation of generic assets incurs less deadweight losses than the appropriation of idiosyncratic assets. Generally speaking, generic (redeployable) assets are more elastic to appropriative activity than idiosyncratic (non-redeployable) assets. The *degree of the asset's specificity* plays an important role in deciding the protection costs.

Contractual relationships involving generic assets incur *low transaction costs* but *high protection costs* since they require state violence-using enforcement. This explains why the emergence of extensive impersonal markets for generic assets at the heyday of capitalism required a more comprehensive state apparatus both in terms of central administration and coercive means (North *et al.*, 2009). Conversely, the protection costs decrease with a higher level of asset specificity, since contractual relationships involving idiosyncratic assets cannot be enforced by third party enforcers (judges) who are often unable to verify the terms of incomplete contracts. In this case, renegotiation of contractual terms and bilateral internal enforcement will replace third party enforcement. Consequently, more complex contractual relationships incur *high transaction costs* but *low protection costs*.

The development of an *impersonal* market and *anonymous* exchange increases protection costs, while specific contractual relationships (*personal* or face to face market relationships) are less prone to appropriation and more vulnerable to contractual defection[17]. Anonymous exchange can take two forms. One is caveat-emptor. The other more diverse form includes explicit future-delivery transactions. Unlike future-delivery dispute, caveat-emptor disputes can occur only at the transaction time. In caveat-emptor transactions, the third-party enforcer simply ascertains that each side delivers what was agreed upon, thus preventing the stronger or the quicker from getting away with plain theft. In future-delivery agreements, however, disputes can arise usually if the recipient perceives a discrepancy between the merchandise and the specifications stipulated in the contract (Barzel, 2002, pp. 86-87). In fact, the impersonal market relationship requires more third party violence-using enforcement than a personal exchange relationship. In other words, *impersonal markets incur higher protection costs than personal markets*.

[17] Williamson (1985) calls them « bilateral monopoly » and deals with them as "holdup" cases.

The temporal horizon of social relationships is also a relevant factor in deciding the level of protection costs[18]. In general, protection costs are lower within permanent relationships with no final date of expiration than one-time relationships or relationships with a final date of termination. Repeated contacts make the defection more difficult. A longer relationship is the basis of reputation and trust. This temporal dimension can be regarded as a particular case of 'anonymity' versus 'personal' relationship. While tribal, clan, and neighborhood communities know little or no protection costs within themselves, capitalist economy with its individualistic, market relationships generates diverse forms of protection costs.

My principal result is that protection costs are different from transaction costs and *are inversely related to transaction costs*. Table 2 summarizes the results.

Table 2. Asset specificity, transaction and protection costs

Type of assets	Type of market	Short/long term relationship	Level of appropriability	Type of enforcement	Level of transaction costs	Level of protection costs
Generic	Impersonal competitive markets	Short term relationship	High	External (third party) violence-using enforcement	Low	High
Idiosyncratic	Personal bilateral monopoly	Long term relationship	Low	Self-enforcement or bilateral internal enforcement	High	Low

4) Measurability is the fourth determinant of appropriability. Accountability and controllability are essential in administering and appropriating assets. Hence, the appropriation of an asset requires the ability to assess and to measure the value of an asset so that it can be seized, controlled, and allocated properly (Lenin, [1921] 1965). Assets' concentration or dispersal is germane in measuring their values. The more concentrated an asset is, the easier it can be measured. The costs of measurement determines the degree of appropriability. These costs include transaction costs (informational and monitoring costs) that are reliant on the degree of homogeneity or heterogeneity of assets (Barzel, 1982, 1997). The more generic an asset is, the less costlier will its measurement be since generic assets are often more homogenous. By contrast, the more specific an asset is, the costlier will its measurement be because of its idiosyncratic, non-homogenous profile.

Asset specificity impacts measurement and protection costs in opposite directions. Generic assets incur *low* transaction and *high* protection costs whereas idiosyncratic assets involve *high* transaction and *low* protection costs. Table 3 summarizes the relationships between specificity, measurability and appropriability of assets.

[18] This is partly consistent with asset specificity in Williamson (1985) that favors durable contractual relationships. However, the stability of a social relationship is fundamentally related to the formation of social capital that goes beyond the transactional approach. Seabright (2010, chapter 4) explains the possibility of living among strangers in terms of combining strong reciprocity and self-interested behavior.

Table 3. Specificity, measurability and appropriability

Determinant	Appropriability	Non-appropriability
Asset specificity	Generic	Idiosyncratic
Measurement costs	Low	High
Protection costs	High	Low

Transaction costs are particularly germane in contractual relationships involving highly specific assets that are dependent on complex market relationships rather than external violence-using enforcement. Idiosyncratic assets generating quasi-rents contribute to enhancing a value-added productive economy. By contrast, generic assets are poor in producing added-value and susceptible to redistributive policies. An important result of Table 3 is that *appropriative acquisition of resources prevails in an economy with generic assets rather than specific assets*. The difference between these two types of economy, i.e. productive and redistributive, cannot be explained by the level of transaction costs. Their main difference lies in the prominence of confiscatory policies by the state.

4. Asset-appropriating versus Public-goods perspective: An illustration

Transportation and communication infrastructures and military security are classic examples of public goods. These textbook illustrations are often inspired by American economic history, notably the US railroading and the development of a massive national army (Adler and Polsky, 2010). In fact, the symbiotic relationship between the army and railroads characterize to a large extent the nature of the young American republic since 1850 till the end of the nineteenth century (Angevine, 2004). This new state might be termed "the cavalry-railroad complex, an informal public-private partnership" (Adler and Polsky, Ibid, p. 108). During the antebellum period and when the Civil War started in 1861, both the Confederate and the Union armies were not sufficiently prepared to deploy railroads for military purposes. The war altered both the nation's rail network and the army's organizational culture and structure. Grant, Sherman, and Sheridan serving as quartermasters at army posts on the Pacific coast pioneered this new military culture. The dramatic increase in the army's transportation costs after the Mexican War amounting to 1500 percent from 1844 to 1850 (Angevine, 2004, p. 141) incentivized the Union army to consider the military use of railroads. The three men actively mobilized the railroad for military purposes during the Civil War and became the leading proponents of close cooperation between the army and the railroads in the West.

Before and after the Civil War, three potential models of military-industrial relations were tried: "The first was the policy of minimal government intervention in railroad affairs implemented by the Confederacy. The second was the system of direct military control used by the Union to supervise and operate the Southern railroads during the war. The third was the cooperative approach employed by the Union to guide relations with Northern railroads during the war. When the war ended, the army modified and adopted the third model and began a new phase of military participation in railroad development." (Angevine, Ibid, p. 130). The symbiotic relationship between the army and private railroads, or the 'cavalry-railroad complex' was finally adopted.

According to Adler and Polsky (2010), this complex provided the public goods necessary to enhance the national economy and was the cause of strong American economic growth. However, Fogel's cliometric studies do not seem to confirm their assessment: "The railroad did not make an overwhelming contribution to the production potential of the economy." (Fogel, 1964, p. 235). Indeed, while the railroad was undoubtedly the most efficient form of transportation available to the farmers of the nation, the combination of wagon and water transportation could have provided a relatively good substitute for the fabled iron horse. Political considerations might be more important than economic efficiency in choosing railroads. My contention is that the interests of the state (army) rather than national economy decided the choice of this particular technology of communication and transportation.

The state's discretion in developing railroads is clear from its policy of granting lands to railway companies. In fact, one of the major distinctive characteristics of the American railroading compared to the English system was the cheap cost of land state (if not totally 'free'). The Fifth Amendment authorized the Federal Government and the State to grant immense tracts of land to railway companies to promote railroads in the name of *public interests*. This land had a double use: it could be mobilized as securities to obtain loans from banks; and it empowered these companies to attract settlers, and "thus to acquire traffic by disposing of its land on very easy terms." (*Saturday Review*, 1883, p. 276). In return, the railway companies had an obligation to transport persons and property for the military and naval establishment at 'reduced rates' that only ended on December 12, 1945 (Sutton, 1966, p. 66). Given the reduced rates for military purposes, the use of railroad economized on the state's costs of carrying troops by rail: "The average throughrate for freight by rail was 19 cents per hundred pounds per hundred miles, while the wagon rate would have been between $1.45 and $1.99. The government therefore saved approximately $6 million." (Angevine, 2004, pp. 186-187). But this cost-reduction effect was not the major benefit for the army. More importantly, before the Civil War, the US army was tiny or quasi-inexistent; the transformation of this army into an imperial *mass army* after the war depended mainly on two factors: 1) the military use of the transcontinental railway; 2) the westward extension of land appropriation. I will demonstrate that while both factors are in line with an asset-appropriating perspective of the state, they contradict a public-goods approach.

Considering the first factor, this new transport and communication means stretched what in the preceding section was named the 'state accessibility' by creating a mass army. As Onorato *et al.* (2014) have shown, mass armies[19] were invented by railroads: "Prior to the invention of the railroad, it was physically impossible for states to field mass armies." (Ibid, p. 453). The same is true in the case of the United States. "Railroads enabled the American army to expand its size, move faster and farther, and supply itself from more distant bases" (Angevine, 2004, p. 147). In this sense, maximizing the army's size or extending *state accessibility* was a principal reason for the military deployment of railroads. Compared to the previously 'minimal army',

[19] Despite a widespread belief, the invention of a 'mass army' (*levée de masse*) is not attributable to the French Revolution: "the magnitude of the influence of the French Revolution and Napoleonic era on army size and mobilization was relatively small." (Onorato *et al.*, 2014, p. 453).

the creation of the U.S. mass army not only did not reduce military expenditures but increased it colossally at a national level. However, the maximization of the army's size served the interests of military forces.

The second factor is related to the role of the army in opening the West for settlement. While the 'productive' advantage of the cavalry-railroad complex is not obvious, its advantage in colonization and violent appropriation of land from Native Indians and Mexicans is uncontestable. Land for settlement is a *captive asset*, since it satisfies both properties of captive assets: 1) it is immobile; 2) it is a generic asset and hence easily confiscable. A massive imperial U.S. army could implement the settlement policy through exclusive manhunting which was necessarily a bloody process since its principal objective was land appropriation rather than enslaving native Indians. In fact, a good part of the land granted to railroad companies was taken from Navajos. Between 1863 and 1868, the US Army waged a war on the Navajo people that ended in the Army holding half of all Navajos at Fort Sumner, New Mexico. "In 1866 Congress set aside a swath of land south of the treaty reservation for a transcontinental railroad that would travel through the middle of the Navajos' traditional homeland. The grant, alternate square-mile sections in a corridor soon expanded to 100 miles wide, was supposed to generate funds to finance railroad construction." (Kelley and Francis, 2001, p. 73). It is not surprising that in a letter to Grant, the chief engineer of the Union Pacific Railroad, Grenville M. Dodge predicted that "our Rail Road will do more toward taming Indians than all else combined." (Cited in Angevine, 2004, p. 176). Railroads were regarded as the technology of domination helping the expulsion of aboriginals from their territories, exterminating the resistant tribes and domesticating the thwarted Indian tribes.

Advocating a public-goods approach to the role of army, Adler and Polsky (2010) underline the prominent role of the Army in the Western peripheral part of the country: "We identify the state of the nation's geographic periphery-what might be termed the state of the West. Its physical scope shifted steadily westward following the ratification of the Constitution, initially covering the trans-Appalachian region, then crossing the Mississippi River and extending its tentacles across the continent to the Pacific Ocean. In this state of the West, one institution towered over all others-the Army. Controlled by neither courts nor parties, it assumed a dominant position in securing land for settlement, removing aboriginal inhabitants when they clashed with white settlers, seizing a vast swath of territory from Mexico, mapping routes for settlers and assisting transcontinental migration, establishing forts that became the first economic nodes for civil commerce, and more." (Ibid, pp. 109-110). It is hard to describe 'colonialization' as the provision of 'public goods' rather than manhunting and land confiscation[20]. But it may be argued that the provision of military security to settlers was a 'public good' for the community of colonizers. However, a further inquiry about those who benefited from the Army protection clarifies that settlers were not among the principal beneficiaries.

[20]For having a glimpse over the 'domestication' of the native Indian through *Reservation* to *Reorganization*, see Takaki (1993, chapter 9).

Indeed, army protection in the U.S. during the nineteenth century was far from being a 'non-excludable', and 'non-rival' good. Since the army lacked enough troops, it could not provide defense to every settlement. The provision of protection to one settlement could deprive others from it. In this sense, it was a *rival* good. This point was clearly acknowledged by the major authorities in the Army. For example, according to Sherman, the goal of the army was "to aid the people in self-defense, until in time they can take care of themselves, and to make the roads by which they travel or bring their stores from the older parts of our country as safe as the case admits of." (cited in Angevine, 2004, p. 167).

Moreover, military protection was *excludable*. In fact, it was limited to Pacific railroads. "Since the army lacked the resources to police every route across the plains, it tried to funnel westward emigration onto a few primary avenues of travel by designating a few major routes for emigrants to follow and refusing to establish or protect others. The construction of the Pacific railroads, which Grant predicted "will naturally draw all travel to those lines," represented an opportunity to reduce even further the number of routes west." (Angevine, Ibid, p. 168). In other words, all other routes except those of the Pacific railroads were excluded of military security. Those who determined the patterns of railway routes could exclude others from military security. It should be reminded that railroads were constructed in *sparsely* populated regions (*Saturday Review*, 1883, p. 276; Adler and Polsky, Ibid, p. 101). This clearly meant that military protection was a private good. In fact, the Army provided *private* protection for Pacific railroads and this was also explicitly conceded by top military officials: "In exchange for benefits that the army received from the railroads, its leaders felt obliged to provide several services. First and most importantly, Grant argued, the army should provide "every protection practicable" to the railroads, Sherman concurred, reasoning that the privately owned Pacific railroads were nevertheless public endeavors, and "their public nature implies public protection." (Angevine, ibid, p. 173). But what were the benefits that the army received from the railroads?

The most important benefit was the afore-mentioned 'reduced rates' for the transportation of the army's personnel and materials that contributed to the emergence of a massive transcontinental army. In return, the state granted land to private railway companies in the name of 'public interests' as stipulated by the Fifth Amendment. In addition to this benefit, two particular benefits should also be emphasized.

First, the extinction of buffalos due to the railroads: "Leading army officers recognized the links between the extension of the railroads, the decline of the buffalo, and the fate of Native Americans. By reducing the buffalo population, thereby weakening the Native Americans on the plains, the railroads were helping the army accomplish its mission." (Angevine, Ibid, p. 173).

Second, personal favors for the leading army officers defending a close relationship with Pacific railroads: "The Union Pacific and the Union Pacific Eastern Division also offered personal benefits to army officers. They provided private cars and valuable passes for free railroad travel…The companies also entertained officers on excursion trips and sold them land at steep discounts." (Angevine, Ibid, p. 185). The corruption of the army officers as well as Presidents and Boards of Directors of railway companies has been exhaustively documented by Bain (1999).

Reviewing the story of the ‘cavalry-railroad complex’ shows that a public good approach is far from capturing the rise of a mass army, colonization, and the use of railroads as a technology of domination. The only doctrinal justification for the ‘civilizing effect’ of railroads has been the domestication of the native Indians as ‘roving bandits’: “The leading figures in the army in the West regarded the conflict on the plains as a contest between civilization and barbarism. Sherman divided Native Americans into two groups based on their potential for civilization. He was willing to tolerate those who embraced his idea of civilization by settling in one place and adopting agriculture…He doubted, however, that most Native Americans were capable of adopting a sedentary lifestyle…Peaceful coexistence of the different ways of life was simply impossible. “So long as the two distinct races of people, with such diverse interests as subsist between the roving Indians of the plains and our own white settlers, remain together,” he argued, “so long will actual war exist.”” (Angevine, Ibid, p. 169).

The victory over the so-called ‘roving Indians’ was not achieved by ‘civilizers’ or promoters of public goods but by ‘stationary bandits’ (Olson, 1982). This is the way an asset-appropriating perspective of the state interprets the formation of a cavalry-railroad complex in the U.S. during the nineteenth century.

Conclusion

The concept of public goods is the cornerstone of a *normative* theory of the boundaries of state’s action, but its explanatory power in delineating the existing boundaries of a predatory state is questionable.

In this paper, I endeavoured to develop a *positive* theory of predatory state by focusing on the way the state sees an asset. Hence, I distinguished the booty value of an asset from its economic value. Indeed, this distinction is implicitly captured in our discipline from its inception, since the founders of political economy had already underlined the impact of assets’ *mobility* on restricting tyranny and enhancing democracy. Following this line of inquiry, I further introduced a classification of assets with respect to their economic *appropriability* and political *mobility*. The former measures the interests of the predator and the latter captures the resistance of the prey to thwart predation.

Four categories of assets have been distinguished: 1) pure escape assets; 2) mixed escape assets; 3) mixed captive assets; 4) pure captive assets. Appropriation costs are the highest in the first category and the lowest in the last but are intermediary for second and third categories. While pure escape assets define the non-state space, pure captive assets trace the state space. Mixed escape/captive assets are located on the frontiers of the state and non-state space, and have an indeterminate position with regard to allegiance to any state space. Four dimensions have been identified in defining escape assets or the frontiers of the state space, namely *accessibility*, *concentration or dispersion*, *asset specificity*, and *measurability*.

Since captive assets are easily appropriable and their appropriation costs are low, the state has a monopoly power in fixing their protection price. But mixed assets are critical assets since they have an exit option, and their appropriation depends on the state's ability to secure property rights by offering a competitive protection price. Predatory regimes can adopt different historical trajectories according to their strategy of accumulation. Generally speaking, they might choose either a *redistributive* or a *productive* regime. In the former case, they enhance 'aggressive' or coercive acquisition of resources to maximize protection rents (tribute). A redistributive regime prevails in an economy with generic assets rather than specific assets. The owners of mixed assets can maximize their profits by minimizing protection rents (tributes) and enhance a value-added productive economy. The difference between these two trajectories determines the development path.

A positive theory of the predatory state requires an understanding of the constant evolution of the boundaries of captive versus fugitive assets, according to the state's ability to appropriate and the subjects' ability to escape or hide their assets. The US railroading system in the nineteenth century provides an illustration regarding the explanatory power of an asset-appropriating perspective of the state compared to a public goods approach.

An important policy implication of this theory in developing countries is that the inefficiency of predatory states is not solely analyzed in terms of the level (quantity) of investment but according to the assets' structure. This perspective raises new questions about the political economy of development under predatory regimes that need to be explored further.

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