



Munich Personal RePEc Archive

Protection costs, transaction costs, and economic theory

Vahabi, Mehrdad
University Paris 8

September 2008

Online at <http://mpa.ub.uni-muenchen.de/17648/>
MPRA Paper No. 17648, posted 04. October 2009 / 17:34

Protection Costs, Transaction Costs and Economic Theory

Mehrdad VAHABI (Université Paris 8)

Abstract

Contractual reductionism takes market exchange as the ubiquitous form of economic organization throughout history. Transactions costs are accordingly regarded as the costs of running any economic system in general. This paper explores the nature of protection/aggression costs as specific costs of coordination through coercion which should be distinguished from transaction costs. Protection/aggression costs play a crucial role in deciding the frontiers between the state and firms as well as their alliance and networking. Our study shows that externalization or internalization of the state-type activities of the enterprise hinges upon the amount of protection/aggression costs compared to the sum total of tax plus transaction costs.

Keywords: Protection/aggression costs, Transaction costs, Contractual reductionism, Coordination through coercion, external and internal enforcement

JEL Classification: D21, D74, E11, H11, H41, H56, L14, L22, L39, N4

Protection Costs, Transaction Costs and Economic Theory

Introduction

One of the major characteristics of advanced market economies is the high share of transactions costs as a percentage of the GDP. By transaction costs, we mean the costs associated with the use of a price-making system of market exchange (Coase, 1937) that includes the costs of accountants, lawyers, insurers, financial intermediaries and different sources of contractual arrangements. According to certain estimations, they formed almost half of the American GDP in the seventies (Wallis and North, 1988). The significance of these costs notwithstanding, people in advanced countries might feel lucky to bear the costs of bargaining and negotiating under a state of law instead of being the victims of predation, appropriation, and racketing. Glimpsing over the world map, one cannot be indifferent to many sufferings of people in many parts of the globe such as countries traversing the post-socialist transition during the nineties, as well as many African countries experiencing civil wars, or the Middle East region with bleeding Iraq, Afghanistan, Lebanon, and Iran where according to his grand contemporary late poet, Ahmad Shamloo, “the life of a human being is worth less than the wage of a gravedigger”. In these parts of the world, the costs of protecting one’s life and belongings are much higher than the transactions costs.

Of course, protection is an ambivalent notion, since it includes both itself and its antinomy, namely aggression. In this sense, protection/aggression costs (Tilly, 1985) involve not only the costs of third party violence-using enforcement (or state), warfare and related military technology, but also the costs related to other violence-using agencies (such as Mafia-like organizations, private security and military corporations), civil military mobilizations, and socio-political conflicts. The costs of weapons of self protection, locks and security cameras, and other surveillance devices should equally be added to this long list. Undoubtedly, these costs were particularly high during the state-building period and merchant empires in the Western countries (Lane, 1979). But it suffices to remember the title of the recent book of Stiglitz and Bilmes (2008), “The Three Trillion Dollar War” to acknowledge the relevance of protection/aggression costs even for people living in advanced countries today. Moreover, as recent calculations of Jayadev and Bowles (2006, 2007) suggest, even in an advanced country like the USA, 20 percent of workers are presently engaged in “guard labor”. Protection/aggression costs are thus present everywhere, though the ratio of protection costs to transaction costs (PC/TC) are different across countries.

What is the nature of protection/aggression costs? This is the first question that will be addressed in this paper. The answer to this fundamental question is a bone of contention among economists, since *protection costs* are usually treated as part and parcel of *transaction costs*. As our investigation in the first part will show the theoretical underpinning of such a contention resides in contractual reductionism. This approach holds that markets are the ubiquitous form of economic coordination and hence all other

forms of social integration throughout history should be translated into market terms. Accordingly, different types of coordination costs are reduced to transaction costs.

What are the consequences of extending the notion of transaction costs to include protection costs? While the importance of transaction costs within a Coasian paradigm will be acknowledged, the ambiguity and confusion related to such an extension will be discussed in the second part. After establishing a demarcation line between protection costs and transaction costs, the dynamic of the former will be examined.

What is the relevance of protection costs in understanding the evolution of modern institutions? Modern institutions¹ are the outcome of intricate and complex relationships among markets, firms and the state. Transaction costs shed light on the boundaries between markets and firms, whereas protection costs provide a rationale for the frontiers as well as alliance and networking between the state and firms. This issue will be tackled in the third part.

I. Coordination costs and contractual reductionism

There is a general tendency to ignore institutional specificities of different forms of social integration and to reduce them to only one social pattern, namely the market exchange. Accordingly, different types of coordination costs are also reduced to transaction costs. In this part, we will first highlight different forms of coordination costs, and then discuss the theoretical underpinnings of contractual or transactional reductionism.

I.1 Different types of coordination costs

Polanyi (1944, [1957] 1968) has distinguished three ‘patterns of social integration,’ namely ‘reciprocity’, ‘redistribution’ and ‘exchange.’ This triad has provided the starting point for most subsequent discussion about the way in which the economy is embedded in institutional arrangements (Lindblom, 1977; Kornai, 1984, 1992; Schlicht, 1998). Destructive coordination or “cooperating to coerce” has been lately identified as a fourth type of social integration (Hirshleifer, 2001; Cowen and Sutter, 2007; Vahabi, 2007).

These four main typical or ideal forms of integration can be summarized as follows.

1) *Reciprocity* relates to an overarching social pattern and differs from modern usage of the term that refers to bi-lateral interaction. It assumes another specific institution as background, namely symmetrically arranged groupings such as a kinship system. Individuals as part of a tribe, clan, family or religious community identify themselves with the group and their adherence to rules constitutes the code of honour.

¹ In this paper “modern institutions” refer to three basic institutions of the modern age, namely 1) *price-making* markets (which are different from other archaic types of markets), 2) a nation-state having the *monopoly of violence*, and 3) modern corporation based on *contractual relationships* and not forced labor.

2) *Redistribution* hinges upon the presence of some measures of centrality in the group like the state or religious hierarchy, and designates appropriational movements toward a centre and away from it.

3) *Exchange* requires a specific institution, namely archaic markets, or a system of modern price-making markets.

4) *Destructive coordination* is based on parallel institutions or state failure. It achieves coordination by intimidation, threat, and the use of coercive means. Resources and human efforts are allocated in order to *appropriate* what other people produce.

An analysis in terms of the prevailing patterns of social integration may shed light on the particular institutional arrangement through which human activities are co-ordinated in a particular economy. A typical or ideal model is of course an abstraction that selects a group of closely related elements from real world mixed systems. There is no real social system that can be exclusively coordinated by only one of these forms of integration; rather, any given society may be analyzed in terms of a certain combination of them.

The operation of each form of social integration warrants a particular type of coordination costs. For example, *transaction costs* are the specific costs of using price system (Coase 1936), and thus they can be defined as the coordination costs of using modern price-making markets. Redistribution incurs another peculiar form of coordination costs, namely *bureaucratic or administrative costs*. Reciprocity entails *social costs* of interiorizing community code of conduct or the costs of subjugation of individuals to community norms. Finally, *protection/aggression costs* are the costs of coordination through coercion.

However, the singularity of these different costs of coordination is usually overruled in economic literature, since in an axiomatic way of reasoning different types of social integration are assumed to be different variants of exchange or contractual relationships. Accordingly, transaction costs cover almost any sort of coordination costs.

I.2 Contractual reductionism and transactions costs

It is widely and implicitly held that markets are the ubiquitous and invariable form of economic organization, and that any economy can be *translated* into market terms. Polanyi ([1957] 1968, p. 142) calls this tendency “economistic fallacy” which consists in an artificial identification of the economy with its market form. One salient example is the historical analysis of North and Thomas (1973) about serfdom. They argue that manorialism is a contractual relationship between the serf and the lord. In the same vein, they propose an explanation of labor services and other characteristics of serfdom in terms of “the extremely high transaction costs of forming organized markets precluding specialization and exchange” (North, 1981, p. 129). The same line of argument is followed in studying slavery: “The relationship that concerns Meckling and Jensen is a voluntary one; it should be noted that in my framework it may be voluntary or involuntary (such as is slavery).” (North, 1981, p. 202). In fact, North’s reference to

slavery builds upon Barzel's classic article (1977) on slavery². In that paper, Barzel endeavours to show the evolution of slavery as a contractual relationship between the master and the slave. He argues that it pays the master to transfer certain rights to the slave in return for more output in the context of principle-agent schemes of motivation structure.

It should be noted that this line of thought makes us stretch the content of the concepts of "voluntary exchange" and "mutual gain from trade" far beyond the liberal connotations with which they are generally associated. In this perspective, a robbery, for example, can be defined as an "implicit contract" between the robbed and the robber where the latter accepts to save the life of the former in return for a certain amount of money. We can assume that an early modern European peasant made a rational calculation of cost against risk before he paid his taxes, his tithes, and his rent. As most peasants neither rebelled nor ran away, we must assume that they felt that they gained by the transaction, and were economizing on "transaction costs". The exchange of products and services are now stretched to include the exchange of threats. All forms of social interactions including those that are based on explicit use of coercion such as slavery, feudalism, or predatory allocation of resources are assumed to be exchange-like relationships. Paradoxically, Polanyi's different "forms or patterns of integration" have also been reinterpreted as different contractual relationships (North, 1977) as if his theory of "economistic fallacy" was predicting the way his own works would be presented later. The contractual reductionism has been sharply criticized by several authors (Kahan, 1973; Steensgaard, 1981) who stressed the incongruity of carrying over the modern day notion of contract to the serf-lord relationship.

To dismiss the objection, cases of involuntary exchanges are usually adduced to show that coercion and unequal rapports between parties do not exclude exchange-like relationships. In other words, "forced sale or buy" is still "sale" and "buy". For instance, during a desperate famine many buyers of food have no other choice than to buy the food whatever the price might be. In some cases of illness, patients are practically forced to agree to the fee asked due to the lack of alternative. Such extreme cases may arise more often in the purchase of protection than in the purchase of water, food, or medical care. Isn't it then justified to consider slavery, serfdom, and robbery as involuntary *contracts*? Needless to say that all the above cases of "forced sale" related to a monopoly situation are given within a system of price-making market coordination. However, one should not confuse the model of the theoretical market with "the structural reality of an age in which very few people were interested in buying and selling unless they were under some kind of coercion" (Steensgaard, 1981, p. 272). The validity of this criticism notwithstanding, suppose that the asymmetrical, coercive and unequal position of the two sides of the "involuntary contract" is clearly acknowledged; why then should one not stretch the notion of contracts to include all the coercive relationships throughout history?

To clarify this point, we argue that even at an abstract level, "market exchange" (voluntary or involuntary) cannot be equated with the "exchange of threats". To

² In his more recent book, North (1990, p. 32) retrieves his reference to slavery as an "implicit contract between a master and a slave". For him, slavery provides a salient illustration of policing agents.

distinguish these two cases, it suffices to compare them with *a state of autarky*. A voluntary or involuntary market exchange is preferable to autarky, but autarky is preferable to the exchange of threats. In other words, buyers of food or health in the afore-mentioned examples prefer exchange, even a ‘forced’ one to autarky. But any slave prefers to go back to his native country where s/he is a freeman. Similarly, the victim of a robbery prefers autarky (not to receive a threat) rather than an exchange of threats³.

The shortcomings of contractual reductionism are often emphasized by historians, but the reference to transaction costs has gained such a currency among economists that its relevance as an explanatory factor of different forms of coordination throughout history has not received sufficient theoretical scrutiny. If transaction costs are the costs of running a system of price-making markets (Coase, 1937), then how could they be transposed to all different forms of social coordination? By stretching the notion of “transaction costs” to cover all types of coordination costs, it loses its *institutional singularity* and becomes more and more *ambiguous*. Moreover, it replaces other relevant notions such as protection costs (related to destructive coordination), bureaucratic or administrative costs (redistribution) and social costs (reciprocity). An examination of the vast literature on Transactional economics reveals further the ambiguity of the notion of transaction costs.

II. Ambiguity of transaction costs

As noted earlier, transaction costs can be defined as the costs of using a particular type of coordination, i.e. a system of price-making markets. The important thing about a definition is not its immutable divine character, its absolute power to be applied everywhere or to draw rigid, clear cut frontiers in real life. Life is more complex to be put into boxes, and this paper is not about a pedantic exercise of erudition regarding definitions. A definition provides a valuable categorization insofar as it relates to a specific problematic issue. The above definition is a relevant one since it closely relates to the major question of a particular research program that Ronald Coase (1937) designed in his seminal paper with regard to the boundaries of the modern firm. Coase opposes modern firm to the price-making market as an alternative coordination mechanism. Transaction costs are hence the costs of using the price mechanism, whereas the firm uses the command system that incurs bureaucratic or administrative costs. The use of the command system within a firm economizes on transaction costs, but entails bureaucratic or administrative costs. A comparison of these two different types of coordination costs determines the advantage of using one mechanism over the other.

Further research about the boundaries of the modern firm led Coase (1960) to substantiate and specify his earlier notion of the costs of using the price mechanism in the following terms: “In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up a contract, to undertake the inspection needed to make sure that the terms of the contract are being

³ Lindblom (1977, pp. 33-34) also clearly distinguishes the exchange relationship on which markets are built from other forms of exchange notably that of threats and injuries.

observed, and so on.” Thus, transaction costs involve all the required costs of coordinating sequential phases of the exchange process. Dahlman’s commentary on Coase (1960) sheds light on transaction costs as the costs of coordination of three sequential phases of the exchange process, namely “search and information costs, bargaining and decision costs, policing and enforcement costs.” (1979, p. 148).

The nature of these costs has been discussed further. The fact that they can all be reduced to the lack of information has been criticized as “informational reductionism” (Hodgson, 1988, p. 201). Other authors (like Loasby, 1976; Langlois, 1984, Nooteboom, 1992) have also criticized other limits of this definition of transaction costs that fails to grapple its dynamic dimension or the radical uncertainty related to the formation of capabilities. Langlois (1992) has accordingly distinguished transaction costs in the long run from the short run. The former includes “costs of coordinating separate stages of production” (p. 115). The importance of all these criticisms, ramifications and precisions (and many others that can be the subject of a whole book) notwithstanding, transaction costs have a clear meaning insofar as they are associated with a specific form of coordination.

This clarity fades whenever the specific institutional relationships between transaction costs and price-making markets are denied. For instance, Arrow’s definition of transaction costs as the “costs of running the economic system” (Arrow, 1969, p. 48) is riddled with ambiguity, since the nature of the “economic system” remains unspecified. In this part, it will be argued that the “measurement branch” of the transactional approach has particularly contributed to such type of ambiguity.

II.1 Asset specificity and measurement branches

Different variants of the transactional approach have produced an extensive literature. Alchian and Woodward (1988, p. 66) have suggested that there are two distinct traditions in transaction costs analysis: “One emphasizes the administering, directing, negotiating, and monitoring of the joint productive teamwork in a firm. The other emphasizes assuring the quality or performance of contractual agreements”. The former is what might be called the *measurement* branch of transactional approach. The latter is known as the *asset-specificity* branch. North (1990, p. 27) also concedes that this distinction holds true. The measurement branch has been originated by Cheung (1974) and elaborated, modified, and developed at the University of Washington, most notably by Barzel (1977, 1982, 1989) and North (1981, 1990). The asset-specificity branch has been particularly substantiated by Oliver Williamson (1975, 1979, 1985, 1996). While the asset-specificity approach has focused on capitalism and specific mature forms of contractual interactions, firms and hybrid relationships; the measurement branch endeavors to grasp not only the frontiers of the modern corporation but also the historical evolution of fundamental institutions such as property rights, states, and ideology in terms of transaction costs.

In line with Coase’s notion of transaction costs, Oliver Williamson further distinguishes *ex ante* and *ex post* types of transaction costs. The first are “the costs of drafting, negotiating, and safeguarding an agreement” (Williamson, 1985, p. 20). *Ex post* costs of contracting include “1) the maladaptation costs incurred when transaction drift out of

alignment in relation to what Masahiko Aoki refers to as the 'shifting contract curve' (1983), 2) the haggling costs incurred if bilateral efforts are made to correct *ex post* misalignments, 3) the setup and running costs associated with the governance structures (often not the courts) to which disputes are referred, and 4) the bonding costs of effecting secure commitments." (p. 21). Although Williamson has been severely criticized by Hodgson (1988, p. 200) for "his failure to provide an adequate definition of transaction costs"⁴, his detailed analysis of these costs bears no ambiguity with regard to its institutional underpinning. In his work, like that of Coase, transaction costs are defined and studied within the framework of specific advanced market exchange relationships.

However, the research program of at least several eminent representatives of the measurement branch notably that of Barzel and North can be contrasted with that of asset-specificity approach. They attempt to stretch the notion of transaction costs to include all historical social formations. Contrarily to Williamson, they do not define transaction costs within the exchange relationship; these costs are rather associated with a Hobbesian "state of nature" which precedes exchange. "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. Over those commodities, then, they had economic rights. *They had to protect what they got, and thus they incurred transaction costs (as the term is defined here)*. Moreover, they did not yet engage in exchange, because the costs of affecting it were prohibitively high." (Barzel, 2002, pp. 267-68, the emphases are mine). Transaction costs are here defined as protection/aggression costs and are extended to include pre-exchange Hobbesian state. Following Allen (1991), Barzel closely relates transaction costs to economic rights. Transaction costs are then the resources used to establish and maintain property (i.e. economic) rights.

According to Barzel, individuals have initially no legal rights over the assets they acquire, as no legal institutions exist. They do have, at least partially by might, "economic rights" akin to Hobbes's "natural rights" over these assets. The appropriate allocation of resources through capture and theft is hence included in the transaction costs: "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. As the probability of theft increases, the ability to enjoy it declines, whereas the expense of protection is likely to increase." (Barzel, 2002, p. 15). Barzel's story about transaction costs does not come within the Coasian paradigm of mutual advantageous exchange relationships; it is rather concerned with the Hobbesian state of capture and predation. Accordingly, transaction costs are associated with the costs of a third party violence-using enforcement (particularly the emergence of state's enforcement) to secure property rights.

⁴ It should be noted that surprisingly Hodgson (1988) does not quote Williamson's definition of transaction costs in his major work (Williamson, 1985) and refers mainly to his earlier papers.

Like Barzel, North's notion of transaction costs is tailored to include the costs of delineating, measuring and enforcing property rights (North and Thomas, 1973, p. 5; North, 1981, p. 145; North, 1990, p. 27; North, 1992, pp. 6-8; North, 1993, p. 18). Nevertheless, North prefers to go even beyond Barzel in broadening the determinant variables of transaction costs so that "ideological attitudes and perceptions" become an independent variable in deciding these costs (North, 1992, p. 8). Transaction costs then include everything that may directly or indirectly affect the economic system: "One can think of transaction costs as all costs incurred in operating an economic system" (North, 1992, p. 6). The only problem with this all encompassing notion of transaction costs is the way they should be calculated in the national accounting system. In one occasion, Joseph Wallis and Douglass North (1988) question whether transaction costs should be subtracted from gross national product. In replying to this question, they scrutinize what they mean by the transaction sector: "We measured the transaction sector by taking all the resources used in the 'transaction industries' (wholesale and retail trade; and finance, insurance and real estate, FIRE) and adding wages paid employees in transaction-related occupations in all other industries, the 'non transaction' industries. These occupations encompass managers, supervisors, clerical workers, and employees in purchasing and marketing departments...indeed, they account for almost half of GNP in 1970." (Wallis and North, 1988, p. 651, 653).

But why are costs incurred in organizing tribunals, police, guards, army, security agencies, private mercenary corporations, surveillance systems in supermarkets, etc. not included in Wallis and North's calculation⁵? Why are transaction costs only limited to the costs borne in the exchange of goods and services between firms and consumers as well as those between and within firms? In a recent study regarding the weight and significance of guard labor across countries, Jayadev and Bowles (2006) also stress that "Guard labor bears no obvious relationship to transaction costs. In a standard labor discipline model, for example, monitors are guard labor, and the cost of employing them is transaction costs. But what of that wages are paid in excess of the workers' next best alternative to elicit higher levels of labor effort? Is this excess also not part of transactions costs? *And while prison guards or military personnel represent guard labor, it is unclear which transactions their costs underwrite.*" (p. 335). According to their calculations, in the United States roughly one in five workers are now engaged in guard labor (not counting prisoners and the unemployed⁶), something like double the number of those producing the investment goods making up the depreciation of the final stock (p. 344). "Since 1890 the guard labor fraction of the United States labor force has increased four-fold...The composition of guard labor shifts substantially over this period with supervisory labor and the military growing most rapidly over the period 1890-1948, and

⁵ Moreover, since 'ideology' is also regarded by North as a determining variable of transaction costs, the costs of running all types of going concerns that can form or influence public opinion, such as churches, political parties, religious sects, intellectual circles, and education systems should have also been included.

⁶ Although Jayadev and Bowles (2006) follow Classical economists in defining "guard labor" as "unproductive labor", their notion of "guard labor" is particularly Bowlesian, since it includes not only "supervisors, guards, and military personnel" but also "prisoners and unemployed workers". This broad definition of "guard labor" is in accordance with Bowles's (1991) conception of unemployment as a strong disciplinary mechanism complementary to supervision.

the growth of prisoners and guards in the literal sense (police, corrections officials and private security personnel) being more rapid during the latter period. The latter period witnessed a substantial decline in the military fraction, which peaked at 5.4 percent in 1966 and fell to 1.5 percent in 2002. About half of those classified as guards in the literal sense (47 percent) were privately employed in 2002, up from 28 percent in 1890.” (Bowles and Jayadev, 2007). This is part of the costs which can be coined as “protection/aggression costs”. Other costs should be added. For example, labor involved in the production of weapons for self protection, of locks and security cameras, and other surveillance devices have been ignored in the preceding estimations.

Of course, transaction costs as the costs of managers, lawyers, accountants, insurance companies, supervisors, clerical workers, commercials of different sorts, and other bargaining and transaction industries are well fitted to the Coasian paradigm and Williamson’s definition of transaction costs. But how can this be reconciled with a Hobbesian and predatory conception of transaction costs? Paradoxically, however, North who adopts Williamson’s notion of transaction costs in gauging the weight of these costs in national accounting reproaches him for excluding “enforcement”: “This emphasis upon enforcement is another major difference between Oliver Williamson’s approach to transaction costs and the one taken in this study. Williamson assumes enforcement to be imperfect (otherwise opportunism would never pay), but does not make it an explicit variable in his analysis. Such an approach simply does not lead the scholar to be able to deal with the problems of historical evolution.” (North, 1990, p. 54) Presumably, the costs of third party violence-using enforcement are part and parcel of transaction costs. But why then are they curiously ignored as a share of transaction costs in Wallis and North’s calculation of national accounts?

II.2 Enforcement and transaction costs

Does it ring true that the enforcement issue receives a derisory attention in Williamson as claimed by North in the above quotation? This question has the pride of place since it draws the line of demarcation between the two branches of transaction costs.

North raises a valid point, but it can hardly be regarded as a shortcoming of Williamson’s analysis. A close examination of Williamson’s work shows that in fact a third-party violence-using enforcement is almost absent in his analysis, whereas self-enforcing as well as bi-lateral contractual enforcement are crucial for his argument. But this is what should be expected insofar as *transaction costs are related to a specific system of price-making market coordination*. Following Coase (1936, 1960), Williamson (1985) starts from an impersonal market system: “At the beginning, there were markets”. Contrarily to Barzel and North, his starting point is not a Hobbesian state. Williamson is often criticized for the historical incongruity of this statement that takes market as an irreducible starting point (Hodgson, 1988). However, this hypothetical assumption is neither false nor true in itself. It only specifies the *postulated* state in which the analysis is conducted. Given the research program of Williamson, i.e. an inquiry regarding the boundaries of firms, it is completely consistent not to assume a Hobbesian state or a Leviathan at the inception.

Although in his definition of “opportunism” as “self-interest with guile” (Williamson, 1985, p. 47), more blatant forms of opportunism such as lying, stealing and cheating are included, his emphasis is on more subtle forms of deceit. He particularly highlights *adverse selection* and *moral hazard* as subtle forms of *ex ante* and *ex post* opportunism. To put differently, he favors the forms of cheating that can rise *within* the contractual relationship and not those *without* this relationship. Theft and capture as part of appropriative allocation is not his concern, but cheating within the exchange relationship falls under his scrutiny. The question of enforcement is thus tackled through the lenses of the “grand transformation” (Williamson, 1985) entailing a process where generic assets are increasingly superseded by idiosyncratic or specific assets.

Asset-specificity approach holds that generic assets are compatible with an impersonal market in the absence of a long term contractual relationship. However, by the gradual increase in the amount and frequency of particular investments, asset specificity and transaction costs grow. Idiosyncratic investments lead to bi-lateral monopoly and hold up situations where contractual guarantees to curb opportunistic behavior play a key role. Face to face relationships finally lead to bi-lateral and unified governance structures where market allocation of resources is replaced by hierarchical (firm) coordination to economize on transaction costs. Fiat or discretionary power of firm’s hierarchy constitutes a sort of tribunal for ultimate appeal. It should be reminded that with higher levels of asset specificities, the *observable* terms of contracts for the parties become increasingly *unverifiable* by a third party (court or the state). This imperfect nature of external enforcement by a third party lends credence to internal enforcement or to lateral and vertical integration.

Barzel and North focus on theft and capture and thus on a third party violence-using enforcement. In their theoretical setup, transaction costs as costs incurred in such type of enforcement are especially high in impersonal markets, since the possibility of theft (*outside* the exchange relationship, and *within* an appropriative allocation) is higher. Generic assets are more easily subjects to capture and hence entail higher transaction costs. Anonymity and lack of long term relationships which are particularly present in cases of caveat-emptor and future-delivery transactions (Barzel, 2002, pp. 84-92) imply high transaction costs and the use of a third party violence-using enforcement. Obversely, “owners of idiosyncratic commodities (...) are expected to protect them by themselves. As these become generic, we expect that (...) the state will undertake the protection.” (Barzel, 2002, p. 59).

Should transaction costs be gauged as “high” or “low” in the case of generic assets? According to the asset-specificity branch, they are *low* since they are more easily coordinated through the price system. However, the measurement branch would argue that they are *high*, since they are more easily subject to capture, and hence entail a higher cost of third party violence-using enforcement. The exact opposite holds true for idiosyncratic assets. The transaction costs are considered to be *high* according to the asset-specificity branch, since they embrace a more complex exchange process. However, the measurement branch claims that they are *low* since “where commodities or services

are idiosyncratic, or even where they are generic but do not require territorial continuity, enforcing agreements without the use of force is likely to be cheaper.” (Barzel, 2002, p. 96). These contradictory results lead us to question the validity of transaction costs as a general and all encompassing notion including “all costs incurred in operating an economic system” (North, 1992, p. 6).

Transaction costs should be limited to a system of price-making exchange. A clear line of demarcation must be drawn between transaction costs and protection costs involved in an appropriative allocation of resources through theft and robbery. Protection/aggression costs include the costs of a third party violence-using enforcement.

III. Protection costs

Adam Smith [1776] 1937 reminds us that protection is more important than opulence. Although modern statisticians consider military expenditures as a final product, Simon Kuznets’ contention that they are “intermediate costs” is more in tune with Smith’s saying. Kuznets (1945, p. 90) argues that “the maintenance of internal peace and external security” is “not a direct service to consumers; it is rather an antecedent and indispensable cost of maintaining society at large and a condition of economic production rather than an activity yielding final goods.” Although in the Classical parlance of Smith ([1776] 1937, p. 315) and Mill ([1848]1965, p. 979), protective activity is part of “unproductive labor”, in Neo-classical economics “protection” might be regarded as a factor of production could Kuznets’ suggestion have gained conventional currency. Of course, that is not the case, and hence it is excluded from the production function in economic textbooks. To grasp the economic significance of protection, its equivocal character as protection/ aggression and its dynamic process must first be addressed.

III.1 Dynamic process of protection/aggression

The term “protection” has a Janus double-faced visage, since a protector can also be an aggressor. That is why the pioneering work of Lane ([1942] 1979, p. 27) avers: “We can hardly avoid stretching the meaning of the word protection to include aggressive action”. Tilly (1985, p. 170) also stresses the two contrasting tones of the term “protection” in contemporary American parlance. “One is comforting, the other ominous, with one tone, ‘protection’ calls up images of the shelter against danger provided by a powerful friend, a large insurance policy, or a sturdy roof. With the other, it evokes the racket in which a local strong man forces merchants to pay tribute in order to avoid damage- damage the strong man himself threatens to deliver.”

Aggression/protection entails the use of coercion. Coercion precedes rules and is not necessarily regulated. It has two different functions, namely *appropriative* and *rule-producing* (Vahabi, 2004). In its *appropriative* function, coercion redistributes the social amount of created wealth through predatory or aggressive activity. However, in its function as *rule-producing*, it is the source of protection. Could these two functions be neatly separated? Can one guarantee that the protector would not be the aggressor? To answer this question, we should study the dynamic process of protection/aggression

activity. Starting from a Hobbesian state where everyone should be the protector of himself/herself and the aggressor of others, three phases might be distinguished in the process of state formation: 1) Extortion; 2) Protection racket; 3) Enforcement partnership. In differentiating these phases, we are directly inspired by the evolution of criminal activity in Russia since the early nineties as described by Volkov (2002). This period in the recent Russian history can be depicted as “state formation”: “On the level of everyday practice, the Russian state does not have the unconditional priority in the use of force, the imposition of taxes, and the exercise of justice within the realm of its formal jurisdiction. Instead of a high degree of regulation or a monopoly, in the domains that constitute a modern state there is competition and cooperation among different violence-managing agencies. It therefore seems that, *with respect to Russia in the 1990s, we cannot postulate either the existence of the state or its absence. The term that captures this condition best is ‘state formation.’*” (Volkov, 2002, p. 155). While a “Hobbesian state” is an abstract theoretical construction that hardly can be found in the reality, the “state formation” provides the closest illustration of such a situation. Recent history is replete with the examples of “state formation”: Afghanistan since the Russian invasion in 1979, Iran after the 1979 revolution, Lebanon since the early eighties, Ex-Yugoslavia in the nineties, Iraq since the Second Gulf war, and many African countries (see Kaldor, 2006). The three phases are as follows.

- 1) *Extortion*: in this initial phase, everyone when stronger tries to demand tribute from others. In this anarchic phase, there is no distinction between protector and aggressor, and everyone may become sporadically and accidentally both aggressor and protector. Borrowing Baumol’s terminology (Baumol, 1990), in this phase “destructive entrepreneurship” has not yet been developed into a specialization. Everyone can be both a “productive” and “destructive” entrepreneur.
- 2) *Protection racket*: as extortion becomes a standard practice by some groups of stronger people, it turns into an institutionalized practice whereby tribute is given by weaker people to particular groups of stronger people so that the latter protect them physically against the aggression of other strong groups. In this phase of *protection racket*, protection/aggression becomes the specialized activity of some particular group of people. We now have *competing* groups of specialized “destructive entrepreneurs”, but none of them has a monopoly over coercive means.
- 3) *Enforcement partnership*: in the preceding phases, destructive entrepreneurship captures what is produced or exchanged by others. However, it stands as an intrusion or a parasite outside productive and commercial activities. Now it turns into a necessary *factor of production* in the sense that it provides the enforcement guarantees for an impersonal market. Caveat-emptor transactions, future delivery debt collection, contract enforcement, and dispute settlement within the contractual relationships warrant a third-party violence-using enforcer. Destructive entrepreneurship permeates all productive activity through its enforcement capability and becomes a necessary institution for the whole economy and not just individual clients. This institution requires not only competition but also cooperation among violence-using enforcers. The initial

havoc now turns into an “ordered anarchy” or what might be called as a “destructive coordination” (Vahabi, 2007; Stringham, 2007). While the protective, regulating, or equilibrating “function” of destructive entrepreneurs is undeniable, their “aggressive” feature is not razed. Hence, one cannot speak of the separation of “protection” from “aggression”.

It is widely held that only the monopoly of violence by the state can lead to a neat distinction between the state as a “legitimate protector” against the “criminal racketeers” as aggressors. Is “ordered anarchy” then a transitional period towards a fourth phase, namely the monopoly of violence by the state? There is no definitive answer to this question. However, it is doubtful that the monopoly of violence by a state puts an end to this ambivalence of protection/aggression. As Tilly (1985, p. 171) rightly argues “to the extent that the threats against which a given government protects its citizens are imaginary or are consequences of its own activities, the government has organized a protection racket.” Contrary to a contractual vision of the state (North, 1981, pp. 21-22) which usually assumes a “collective-action mechanism” for the prevention of abuses of power (Barzel, 2002, p. 107), a predatory vision of the state is more loyal to the European history of state building (Braudel, 1979; Tilly, 1985). At a theoretical level, the problem of separating protection from aggression boils down to the issue of controlling the controller which can never be satisfactorily solved. For this reason, the coercive and conflictual nature of protection/transaction activity is not reducible to a contractual or transactional relationship. The protection/aggression costs are the costs incurred for the social coordination through coercion.

III.2 Protection costs: firms versus state

Transaction costs are relevant in deciding the frontiers of firms and markets. Protection costs, however, provide a rationale to grasp the frontiers of firms and the state as well as their alliance and networking. As Schumpeter (1947, pp. 169, 201) pinpoints, our distinction between private enterprise and state is meaningless during feudalism. In that age, the state belonged to the prince as his private property as much as the fief was the private property of a vassal. In modern times, state may still be regarded as a special type of firm producing a particular commodity, namely protection (Lane, 1979, p. 83). State is not the only institution that can offer such a service. Mafia’s specific feature resides in the fact that it is also a provider of enforcement or protection (Gambetta, 1993, pp. 19-20). In this sense, mafia is also a state type organization. In examining the oceanic expansion of the 15th and 16th centuries, the key innovative enterprises usually combined characteristics of government with characteristics of business. Raid and trade have been good bedfellows throughout history (Pérotin-Dumon, 1991). “The Portuguese pepper trade with India was, at least in the long period of the royal pepper monopoly, part and parcel of the same enterprise that waged war to build an empire. The Portuguese colonization of the islands of Africa and of Brazil was largely through grants to proprietors who were charged not only with organizing production on the lands granted them but also with police and protection. The conquest of Mexico and the conquest of Peru were initiated as profit-making enterprises financed by contracts stipulating how the

profits were to be shared. *These enterprises resembled government in some respects, business in others.*" (Lane, 1979, p. 39).

Modern colonial corporations such as the British East Indian Company were both an enterprise and a state. Pre-capitalist corporations such as mining industry during the Roman Empire as well as middle ages manors were based on forced labor of slaves or serfs. Modern corporation, however, builds upon contractual relationships between employees and employers. Coercion is not thus part of the productive process. Is it then a sufficient condition for modern contractual corporations to lose all their state type characteristics?

To answer this question, Pareto's distinction between two different 'allocation mechanisms', namely the productive and the appropriative is useful: "The efforts of men are utilized in two different ways: they are directed to the *production or transformation* of economic goods, or else to the *appropriation* of goods produced by others" (Pareto, [1927] 1971, p. 341). Borrowing Pareto's distinction, the allocation mechanism in a destructive coordination should be characterized as 'appropriative'. Appropriation includes all the different types of predatory methods such as expropriation, confiscation, piracy, grabbing, etc. The contractual nature of the modern corporation does not exclude the possibility of appropriation nor the need for coercion to guarantee enforcement. Since any enterprise should be protected, the major issue is then when and under what conditions firms delegate the provision of protection to a third party violence-using enforcer and confine themselves to productive and exchanging activities? The use of destructive (coercive) coordination incurs protection costs. An alternative solution is to "domesticate" the state's violence by concluding a deal with its owner and establish a state of law. This solution involves two types of coordination costs: first, the costs of redistribution through a central agent commonly called "taxes"; second, the transaction costs associated with the use of lawyers, insurers, monitors, courts, etc. The comparison is then between protection costs on the one hand, and the sum of taxes and transaction costs, on the other hand. If protection costs related to the internalization of destructive coordination is higher than the sum of taxes and transaction costs, then the firm externalizes the protection costs. Thus the *externalization* entails a tax-collecting state and a contractual enterprise. Conversely, the *internalization* is in order insofar as 1) there are strategic firms or industries economizing on protection costs; 2) there is Mafia enforcement of tradable goods banned by the state. Finally, a period of state formation that excludes monopoly of violence by the state can be regarded as a transitional period embracing both possibilities. It may lead to *externalization* or *internalization*. Developing this insight, cases of externalization and internalization will be discussed below.

A) Externalization: Tax as a major source of the state's revenue

This externalization case is germane for understanding the history of state building in Western Europe where the tax paid by the nobility, merchants and ascending bourgeoisie played a key role in the formation of a standing army and a central administration (Tilly, 1985; Pearson, 1991). In this case, property rights precede the state. In Oriental countries like Iran and Egypt where the state's major source of revenue consisted of tribute due to

assuming certain natural monopolies such as organizing an irrigation system and the provision of governmental and priestly activities (Wittfogel, 1957), the state precedes property rights. Even today, many oil-exporting Middle Eastern states' major source of revenue is oil rent and not taxes (Yousef, 2004).

A caveat is warranted with regard to the meaning of taxes. The term "tax" has several meanings. One meaning is that "taxes are the rents paid by the former owners of confiscated properties to the confiscator. Another meaning is that taxes constitute transfer payments - their claimed destination in contemporary taxation theory." (Barzel, 1999, p. 32). In both meanings, taxes are regarded as the equivalent of the amount of wealth that can be otherwise redistributed through appropriation or transfer payment, though in its contemporary meaning the original appropriative connotation is rather softened or camouflaged. A third meaning has been ascribed to the term in the medieval English parliament as investment shares in projects the ruler usually initiated and in which subjects wished to partake as partners. For example, partners could participate in the conduct of warfare through pecuniary taxes or contributions in kind. The retribution was in terms of war booties. Moreover, the king could be eschewed from using the triumphant army to acquire despotic powers. In fact, as the council or parliament grew in power, it voted for more taxes. The nobility and ascending merchants resorted to taxes not only to tame the protector/aggressor state but also to enhance their looting power. Contrary to what is suggested in Pareto's quotation, here the raid is complementary to trade. But, there exists a deal between the prince and the tax-payers. The "private" state of the prince becomes a sort of "public" organization under the control of a council or parliament that Barzel (1999, 2002) calls "a collective action mechanism". Of course, it does not mean that the state becomes a "pure" protector. Although it remains an "aggressor", it acts rather as a cartel of predators or bandits. In return, the prince acquires the necessary means to wage wars, to enhance military technology, build a standing army and a central administration. The deal leads to the monopoly of violence by a "controlled" state as a cartel of predators. *This monopoly economizes on protection costs and separates the state from the modern contractual enterprise.*

B) Internalization

Internalization has a comparative advantage over externalization when protection costs are less than the sum total of tax and transaction costs. Strategic firms and mafia-type enterprises provide two illustrations.

B1: Strategic firms or industries economizing on protection costs

Economizing on protection costs hinges upon the development of destructive means of production including innovation in conflictual technology, military strategies and tactics, and destructive entrepreneurship (McNeill, 1982; Vahabi, 2004, chapter 5). Nevertheless, historical examples of decisive innovations in military technology (Parker, 1988) show that they were intimately related to the development of particular means of production and communication. The "dual use" technology entailing both military and civil

utilization is often a proper expression to capture the spillover effect of such type of technology (Stiglitz, 2000, chapter 13).

In the later Middle Ages and early modern times, the pressures for and against monopoly collided in maritime transportation, an industry then occupying a strategic position in both commercial and political rivalries. Efforts to protect shipping led to situations in which cargo space was under monopolistic control, and this control could be used to obtain a monopoly over the wares bought or sold at the ports of destination. The links from monopoly of protection to monopoly of transport to monopoly of the products transported are clearly demonstrated in Lane (1973) in his discussion concerning the regulation of shipping by the commune of Venice.

In the 19th century, railroad building had overriding military importance in many countries. During the second half of the 20th century, atomic physics became a sensitive field in which some scientific and engineering services were monopolized by governments on the ground that national security required it. Strategic sectors or sectors related to the exigencies of national security are the fields where though not always directly involving violence, are closely connected with military power. One salient illustration is the Military Industrial Complex (MIC). As Galbraith (2004, chapters 7 and 11) rightly notes, the distinction between ‘public’ and ‘private’ sectors is meaningless in case of the MIC. *The frontiers between firms and the state are blurred in strategic firms or industries that economize on protection costs.*

B2: Mafia enforcement of banned tradable goods

Transactions costs are prohibitive in the case of illicit transactions. Gambetta’s contention (1993) is that the main market for mafia services is to be found in unstable transactions in which trust is scarce and fragile. For instance, illegal transactions instantiate such cases in which no legitimate enforcement agency, namely the state is available. According to him, the Mafia type organization guarantees the enforcement and adjudication of transactions that are prohibited by the government. Its emergence can be explicated by its power to create property rights over tradable commodities that are banned. Whenever the state imposes price controls, or prohibits the possession and exchange of a tradable good, then one can expect that a clandestine or illegal market will develop. Alcohol prohibitions in the thirties were the source of Al Capone’s criminal syndicate. In such cases, *the Mafia acts both as an enterprise and as a state; and the frontiers between firms and the state are once again blurred.* Like a large holding, it covers diverse branches of economic activities which share in common their dire need to be protected from the government’s persecution.

C) Transitional cases leading to externalization or internalization

As previously noted, a period of “state formation” is marked by state failure and should not be confused with state-building. Iran after the 1979 revolution and Russia since 1991 are emblematic illustrations of state formation where state is neither absent nor present. This period can be depicted as “ordered anarchy” where destructive coordination prevails

and *protection* of one's life and entitlements is often more important than *production or transaction*. Appropriation through coercion is a *transitional* phase that may lead to more tightly defined rights (not only property rights, also communal rights - the entire system of rights may crystallize). All depends whether violence is used in enhancing or hindering economic development.

While the transformation of certain Russian racketing gangs to financial-industrial groups provides an illustration of the use of coercion in furthering economic growth and leading finally to a sort of externalization, Iranian Bonyads (Religious Foundations) offer salient counter-examples of internalization. A period of "ordered anarchy" embraces both possibilities and there is no certainty about the final outcome.

C1: Russian case of financial-industrial groups and externalization

The transformation of Kumarin-Barsukov *Tambovskaya* and the *Uralsmashevskie* racketing gangs to financial-industrial groups in Russia are good examples of the way violence is used as an economic force (Volkov, 2002). In both cases, the emergence of new financial-industrial groups enhanced the rehabilitation of the state and led to externalization.

Specialists in violence, both these gangs formed organizations of violence-using enforcement partnership that allowed them to extract tribute from their respective local businesses by offering protection. Having established territorial control, they waged war against competing violence-managing agencies and won the elimination contest. As a consequence, they expanded both their territorial monopoly and commercial opportunities. After achieving a monopoly among informal enforcers, both gangs consciously opted for an economic policy of reasonable taxation and reliable protection of property, thus creating a relatively secure environment and competitive advantages for their business partners. In the longer run, protection rents and reputation resulted in the accumulation of capital and further economic expansion. They both turned into financial-industrial groups. In other words, like the so-called "primitive accumulation of capital", the productive use of violence by these Russian groups led to capital accumulation which generated higher industrial and commercial profit than tribute and protection racket. The ex-criminals thus became the new law abiding protagonists. The process resembles what in Rustow (1970) and Przeworski (1988) models are explored as "the possibility of democracy without democrats"⁷. Although in the Russian case, one may prefer to replace the term "democracy" with a "state of law", and read it as "the possibility of a state of law with gangsters". It should be noted that the groups' survival was due to their constructive or productive use of violence as Volkov highlights in his interview with a member of *Uralsmashevskie*: "the group survived because of its economic success, as its members came to realize that force should be used to assist the growth of business rather than simply to steal: Others, especially *Sinie*, turned out to be unprepared for the new

⁷ Both authors essentially see democracy as a second best solution to intractable conflicts of interest. Both suggest that democratic practices may flow from bargains arrived at by parties with no experience and little philosophical commitment to democracy.

realities. They only knew how to milk [the business], and it did not occur to them that one should invest.” (2002, pp. 118-19). By the late nineties, criminal groups increasingly turned to formal ownership, actively accumulating stocks and setting up holding companies. “This, in turn, required an army of accountants, managers and other specialists and new forms of organization geared toward capital accumulation rather than coercion.” (p. 123).

The state formation warranted a syndicate of wielders of power and wealth who were capable of combining destructive and productive entrepreneurship. *Transaction costs associated with the use of exchange and law enforcement replaced protection/aggression costs, and the blurred frontiers between modern contractual firms and the state type activity (enforcement partnership) were restored.* Internalized state-type activities of the enterprises have been externalized.

C2: Iranian case of Bonyads and internalization

Contrarily to the Russian example, the Iranian case of state formation under the Islamic Republic does not indicate a constructive use of coercion. Private as well as state ownership assumes that property rights are institutionalized and are well defined so that the ultimate boundary of ownership, namely the right to destroy (*abusus*) is also legally clarified and enforced. But the primary role of destructive power in resource allocation implies extra legal, ambiguous, undefined, or non-institutionalized (or insufficiently institutionalized) property rights. Booties in warfare and looting, or confiscated properties in a revolution are what I call ‘indeterminate’ properties. Although they can be transformed into ‘public’, ‘personal’, ‘private’, ‘combinatorial’, or other types of property ownership, their initial status remains indeterminate. In ‘indeterminate’ properties, entitlements to property rights depend on the discretionary power of the coercive authority. However, the ‘indeterminate’ character of property rights may persist if destructive coordination is underpinned by sovereignty crisis or parallel institutions. In such case, ‘indeterminate’ property will be the landmark of a whole transitional period during which the allocation of resources to *protect* one’s property and life oversteps the *productive* activity. It will then be more beneficial to enjoy a *protection rent* due to personal ties with powerful circles than to maximize *industrial profit* by improving technical or organizational efficiency. One salient illustration is the *Bonyads* (Religious Foundations) in post-revolutionary Iran.

Bonyads are regarded as ‘para-governmental’ (Saeidi, 2004), or ‘parastatal foundations’ (Maloney, 2000). There exists a great variety of Bonyads among which Bonyad-e Mostazafan va Janbazan (BMJ, Foundation of the Oppressed and Self-Sacrificers) and Bonyad-e Shahid (Martyrs’ Foundation) are the most prominent ones. The BMJ was set up after the confiscation of the assets of the late Shah and 53 industrialists in exile in the aftermath of the revolution. This was done in conformity with Khomeyni’s injunction that called these assets ‘spoils’ and added that ‘they must be kept and controlled separately from state properties’ (Saeidi, 2004, p. 484). The size and scope of the BMJ is like a government. With holdings worth 12 billion US dollars, the BMJ constitutes the largest non-state sector in the economy, second only to the National Iranian Oil Company

in size. Although, there is no accurate information about Bonyad's activities due to total opacity, the recent economic report of the French Embassy estimates that its different branches contribute to 7-10 per cent of the GDP (Ambassade de France, Mission Economique, 20 juin 2006). The BMJ operates like a holding with many enterprises extending almost in all sectors of the economy such as mining, housing, manufacturing, trade, shipping, transportation, airline, tourism, agriculture, food industry and soft beverages, etc. Recently, it has been strengthening its position in the energy (including hydrocarbon) and communication (particularly cell phones) sectors.

However, this giant holding has a 'chameleon position' with regard to its institutional status. It can change its spots at will, acting as a private economy when buying privatized firms, but going 'public' to control such 'strategic' businesses as the national shipping line, enshrined in the Iranian constitution as a publicly owned agency. This chameleon position is due to its indeterminate property structure. It is neither private nor state-owned. The legal status of the foundations has been described as public, non-governmental organizations, a somewhat paradoxical classification, but faithful in reflecting their 'indeterminate' nature. With no governmental discretion over their expenses, no shareholders, no public accounts, and no well defined legal status, they have been operating autonomously from the government. However, as professedly 'charitable' organizations, they have been benefiting from tax exemptions, preferential bank credits, subsidies and special quasi-budgetary redistribution. The domination of Bonyads in the Iranian economy precludes the success of any economic reform envisaging vast privatizations despite several official campaigns in this respect (Vahabi, 2006). Although the possibility of "democracy without democrats" in the Middle East has been largely discussed (Salamé, 1994), it does not seem yet to be applied to the Islamic Republic of Iran. *The blurred frontiers of the enterprise and the state are closely related to the prominence of protection costs.*

A major difference between Russian and Iranian cases of "state formation" lies in the fact that the multiple violence-using enforcers in Iran are tied to the polycentric Shiite traditional religious hierarchy and its parallel military and security institutions (such as the Islamic Revolutionary Guards Corps - IRGC). The use of coercion is thus to maintain a theocratic state in opposition to the socio-economic requirements of a developing modern society. Internalization of state-type activities by enterprises is vital for their survival. However, it is not excluded that in the very long run, either the incremental adaptation of the traditional Shiite clergy or the predominance of its new military institution, i.e. IRGC in the state ushers a new turning point in the Iranian economic evolution.

The following recapitulative table summarizes the three cases (A, B, C) with regard to internalization versus externalization issue.

Table 1: State versus Firms

Type of case	Internalization versus externalization of protection costs	State monopoly over violence	Type of property rights
Case A: Tax as a major source of the State's revenue	Externalization $C_P > C_T + T$	Yes	Determinate property rights
Case B: Economizing on protection costs	Internalization $C_P < C_T + T$	Yes and no	Blurred property rights (private/State) Blurred property rights (legal and illegal)
B1: Strategic firms and MIC			
B2: Mafia-type firms			
Case C: Ordered anarchy or State formation	From internalization to externalization	No, but rehabilitation of the State	From indeterminate to determinate property rights
C1: Russian case			
C2: Iranian case	Internalization	No	Indeterminate property rights

Notes: C_P = protection costs, C_T = transaction costs, T = taxes, MIC = Military-Industrial Complex.

Conclusion

Four results can be drawn from our study. First, every form of social integration has a particular cost of coordination. Transaction costs are specific costs of coordination through a system of price-making markets, whereas protection costs should be linked to destructive coordination. Second, contractual reductionism takes market exchange as the ubiquitous form of economic organization throughout history. By the same token, transactions costs are regarded as the costs of running any economic system in general. While in the framework of Coasian paradigm, transactions costs are relevant in deciding the boundaries between firms and markets, they have an ambiguous meaning when interpreted as inclusive of all costs incurred in operating an economic system. Third, contrarily to what measurement branch of transactional approach claims, the costs involved in the third party violence-using enforcement are not part and parcel of transactions costs. They constitute one of the components of protection costs as the costs associated with coordination through coercion. Fourth, the duality of coercion as a source of protection and aggression determines its whole dynamic and warrants a predatory vision of the state. Protection/aggression costs play a crucial role in deciding the frontiers

between the state and firms as well as their alliance and networking. Our study shows that externalization or internalization of the state-type activities of the enterprise hinges upon the amount of protection/aggression costs compared to the sum total of tax plus transaction costs.

A detailed analysis of the different determinants of protection costs is necessary to grasp the dynamics of destructive coordination and the relationship between the state and firms. This will be the subject of our future research.

Bibliography

Alchian A. and Woodward J., 1988, "The Firm is Dead; Long Live the Firm", *Journal of Economic Literature*, Vol. 26, No. 3.

Allen D., 1991, "What Are Transactions Costs?", *Research in Law and Economics*, Vol. 14, pp. 1-18.

Ambassade de France en Iran [2006], "Bonyad Mostazafan : La Fondation des déshérités en Iran", 20 Juin, Fiche de Synthèse, Mission Economique.

Arrow K., 1969, *The Limits of Organization*, The Fels lectures on public policy analysis, New York, Norton.

Barzel Y., 1977, "An Economic Analysis of Slavery," *Journal of Law and Economics*, Vol. 20, No. 1, April, pp. 87-110.

Barzel Y., 1982, "Measurement Cost and the Organization of Markets", *Journal of Law and Economics*, Vol. 25, pp. 27-48.

Barzel Y., 1989, *Economic Analysis of Property Rights*, Cambridge, Cambridge University Press.

Barzel Y., 1999, *Property Rights and the Evolution of the State*, Working Paper, University of Washington, June.

Barzel Y., 2002, *A Theory of the State, Economic Rights, Legal Rights, and the Scope of the State*, Cambridge, Cambridge University Press.

Baumol W., 1990, "Entrepreneurship: Productive, Unproductive, and Destructive", *Journal of Political Economy*, Vol. 98, No. 5, part 1, pp. 893-921.

Bowles S., 1991, "The Reserve Army Effect on Wages in a Labour Discipline Model: U.S., 1954-1987", in Mi-zoguchi, T. (ed.), *Making Economics More Efficient and More Equitable: factors Determining Income Distribution*, Oxford University Press, Oxford, pp. 385-406.

Bowles S. and Jayadev A., 2007, "Garrison America", *Economists' Voice*, March, www.bepress.com/ev

Braudel F., 1979, *Civilisation matérielle, économie et capitalisme XV^e- XVIII^e siècles*, 3 Tomes, Paris, Armand Collin.

Cheung S., 1974, "A Theory of Price Control", *Journal of Law and Economics*, Vol. 17, pp. 53-72.

Coase R., 1937, "The Nature of the Firm", *Economica*, Vol. 4, No. 16, November, pp. 386-405.

- Coase R., 1960, "The Problem of Social Cost," *Journal of Law and Economics*, Vol. 3, pp. 1-44.
- Cowen T. and Sutter D., 2007, "Conflict, Cooperation and Competition in Anarchy", in Stringham (ed.), 2007, pp. 315-321.
- Dahlman C., 1979, "The Problem of Externality", *Journal of Law and Economics*, Vol. 22, No. 1, April, pp. 141-162.
- Galbraith J.K., 2004, *The Economics of Innocent Fraud, Truth for Our Time*, Boston, New York, Houghton Mifflin Company.
- Gambetta D., 1993, *The Sicilian Mafia, the Business of Private Protection*, Cambridge, Mass., Harvard University Press.
- Hirshleifer J., 2001, *The Dark Side of the Force, Economic Foundations of Conflict Theory*, Cambridge, Cambridge University Press.
- Hodgson G., 1989, *Economics and Institutions, A Manifesto for a Modern Institutional Economics*, Cambridge, Polity Press.
- Jayadev A. and Bowles S., 2006, "Guard Labor", *Journal of Development Economics*, Vol. 79, pp. 328-348.
- Kahan A., 1973, "Notes on Serfdom in Western and Eastern Europe", *Journal of Economic History*, Vol. 33, No. 1, March, pp. 86-99.
- Kaldor M., 2006, *New and Old Wars: organized Violence in a Global Era*, Cambridge, Polity, second edition.
- Kornai J., 1984, "Bureaucratic and Market Coordination," *Osteuropa Wirtschaft*, vol. 29, no. 4, pp. 306-319.
- Kornai J., 1992, *The Socialist System, The Political Economy of Communism*, Oxford, Clarendon Press.
- Kuznets S., 1945, *National Product in Wartime*, New York, National Bureau of Economic Research.
- Lane F. [1942] 1979, "The Economic Meaning of War and Protection", in Lane F., 1979, pp. 22-36.
- Lane F., 1973, *Venice. A Maritime Republic*, Baltimore, John Hopkins University Press.
- Lane F., 1979, *Profits from Power, Readings in Protection Rent and Violence-Controlling Enterprises*, Albany, State University of New York Press.
- Langlois R., 1984, "Internal organization in a dynamic context: some theoretical considerations", in Jussawalla M., Ebenfield H. (eds.), *Communication and Information Economics: New Perspectives*, Amsterdam, North - Holland.
- Langlois R., 1992, *Transaction-Cost Economics in Real Time*, Oxford, Oxford University Press.
- Lindblom C., 1977, *Politics and Markets. The World's Political Economic Systems*, New York, Basic Books.
- Loasby B., 1976, *Choice, Complexity and ignorance: An enquiry into Economic Theory and Practice of Decision Making*, Cambridge, Cambridge University Press.

- Maloney S., 2000, "Agents or obstacles? Parastatal foundations and Challenges for Iranian development", in Alizadeh P. (ed.), *The economy of Iran: The dilemma of an Islamic State*, London, New York, I.B. Tauris Publishers, pp. 145-176.
- McNeill W., 1982, *The Pursuit of Power, Technology, Armed Force, and Society A.D. 1000*, Chicago, The University of Chicago.
- Mill J.S. [1848] 1965, *Principles of Political Economy*, New York, Kelley.
- Nooteboom B., 1992, "Towards a Dynamic Theory of Transactions," *Journal of Evolutionary Economics*, Vol. 2, pp. 281-299.
- North D. and Thomas R., 1973, *The Rise of the Western World, A New Economic History*, Cambridge, Cambridge University Press.
- North D., 1977, "Markets and Other Allocation Systems in History: The Challenge of Karl Polanyi," *Journal of European Economic History*, Vol. 6, pp. 703-16.
- North D., 1981, *Structure and Change in Economic History*, New York, London, W.W. Norton and Company.
- North D., 1990, *Institutions, Institutional Change and Economic Performance*, Cambridge, Cambridge University Press.
- North D., 1991, "Institutions, Transaction Costs, and the Rise of Merchant Empires," in Tracy James D. (d.), *The Political Economy of Merchant Empires*, Cambridge, Cambridge University Press, pp. 161-195.
- North D., 1992, "Transaction Costs, Institutions, and Economic Performance," *International Centre for Economic Growth*, Occasional Papers, No. 30, 32 pages.
- North D., 1993, "Institutions and Credible Commitment," *Journal of Institutional and Theoretical Economics*, Vol. 149, No. 1, pp. 11-23.
- Parker G., 1988, *The military revolution, military innovation and the rise of the West, 1500-1800*, Cambridge, Cambridge University Press.
- Pareto V. [1927] 1971, *Manual of Political Economy*, New York, A. M. Kelley.
- Pearson M. N., 1991, "Merchants and states," Tracy James D. (d.), *The Political Economy of Merchant Empires*, Cambridge, Cambridge University Press, pp. 41-116.
- Pérotin-Dumon A. 1991, "The Pirate and the Emperor: Power and the Law on the Seas, 1450-1850", in Tracy
- Polanyi K., 1944, *The Great Transformation*, New York, Farrar and Rinehart.
- Polanyi K., 1968, *Primitive, Archaic and Modern Economies*, Dalton G. (ed.), New York, Doubleday.
- Przeworski A., 1988, "Democracy as a Contingent Outcome of Conflicts", in Elster J. and Slagstad R. (eds.), *Constitutionalism and Democracy*, Cambridge, Cambridge University Press.
- Rustow D., 1970, "Transitions to Democracy: Toward a Dynamic Model", *Comparative Politics*, Nos. 2-3, April, pp. 337-63.
- Salamé G. (ed.), 1994, *Democracy Without Democrats?*, London, New York, I.B. Tauris Publishers.

- Saeidi A., 2004, "The Accountability of Para-governmental Organizations (bonyads): The Case of Iranian Foundations", *Iranian Studies*, vol. 37, n° 3, pp. 479-498.
- Schlicht E., 1998, *On Custom in the Economy*, Oxford, Clarendon Press.
- Schumpeter J., 1947, *Capitalism, socialism and democracy*, New York, Harper and Brothers, second edition.
- Smith A. [1776] 1937, *An Inquiry into the Nature and Causes of the Wealth of Nations*, New York, Modern Library.
- Steensgaard N., 1981, "Violence and the Rise of Capitalism: Frederic C. Lane's theory of Protection and Tribute," *Review*, Vol. V, No. 2, Fall, pp. 247-273.
- Stiglitz J., 2000, *Economics of the Public Sector*, New York, W.W. Norton Company.
- Stiglitz J. and Bilmes L., 2008, *The Three Trillion Dollar War, The True Cost of the Iraq Conflict*, London, Allen Lane, Penguin Books Ltd.
- Stringham E. (ed.) 2007, *Anarchy and the Law, The Political Economy of Choice*, New Brunswick and London, Transaction Publishers.
- Tilly C., 1985, "War Making and State Making as Organized Crime," in Skocpol Theda and Peter Evans (eds.), *Bringing the State Back In*, Cambridge, Cambridge University Press, pp. 169-191.
- Vahabi M., 2004, *The Political Economy of Destructive Power*, Cheltenham, UK; Northampton, MA, USA, Edward Elgar.
- Vahabi M., 2006, "Between Social Order and Disorder: The Destructive Mode of Coordination", Working Paper, Munich Personal Repec Archive, <http://mpra.ub.uni-muenchen.de/>
- Vahabi M., 2007, "An Introduction to Destructive Coordination", Forthcoming in the *American Journal of Economics and Sociology*, Vol. 68, 2009.
- Volkov V., 2002, *Violent Entrepreneurs: The Use of Force in the Making of Russian Capitalism*", New York, Cornell University Press.
- Wallis J. and North D., 1988, "Should Transaction Costs be Subtracted from Gross National Product," *The Journal of Economic History*, Vol. XLVIII, No. 3, September, pp. 651-654.
- Williamson O., 1975, *Markets and Hierarchies: Analysis of Anti-Trust Implications*, New York, Free Press.
- Williamson O., 1979, "Transaction cost economics: the governance of contractual relations", *Journal of Law and Economics*, Vol. 22, No. 2, pp. 233-261.
- Williamson O., 1985, *The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting*, New York, Free Press.
- Williamson O., 1996, *The Mechanisms of Governance*, Oxford, Oxford University Press.
- Wittfogel K., 1957, *Oriental Despotism: A Comparative Study of Total Power*, New Haven, Yale, University Press.
- Yousef T., 2004, "Development, Growth and Policy Reform in the Middle East and North Africa since 1950", *Journal of Economic Perspectives*, Vol. 18, No. 3, Summer, pp. 91-116.