

Piracy, Inc.

On the Bearing of the Firm Analogy to Pirate Organization*

Per L. Bylund
Division of Applied Social Sciences
University of Missouri
323 Mumford Hall
Columbia, MO 65211
U.S.A.
Per.Bylund@mizzou.edu
Tel: (573) 882 4627

November 8, 2009

Keywords: theory of the firm, organization, ownership, pirates

Abstract

Peter T. Leeson's *The Invisible Hook* provides an illuminating economic analysis of how pirates established governance structures regulating their organization. Leeson is successful in showing economic rationales for piratical institutions and adopts the view of the piratical enterprise as a for-profit business firm to further illustrate the point. This essay argues, however, that modern theories of the firm are not fully compatible with the nature of piratical organization. Rather, pirates seem to have suffered from problems much like those in traditional cooperatives, arising from organizing collective action and joint ownership of the means of production.

* This essay was prepared for a symposium on Peter T. Leeson's *The Invisible Hook*, to be held at the Southern Economic Association meetings in San Antonio on November 23, 2009. The author thanks Peter G. Klein for comments and suggestions, but all errors remain the author's.

In *The Invisible Hook* (2009), Peter Leeson makes a valiant attempt to provide insight into pirate organization through applying rational choice theory to their organizational structure. As the study of pirates overall lacks of economics' powerful explanations of behavior and therefore should rely too heavily on interpretations of social or political aspects, the book is a welcomed contribution.

Leeson assumes that the piratical enterprise was essentially a business firm striving to maximize profit. The assumptions of rational behavior and economic theories are applied from this perspective and supposedly explain the institutional nature of piratical organization. Indeed, Leeson claims that the pirate ship, albeit the criminal nature, to some extent “resembled a Fortune 500 company” (Leeson 2009, p. 6). Furthermore: “piracy was a business. It was a criminal business, but a business nonetheless, and deserves to be examined in this light” (ibid.). He maintains that the relevance of likening the pirates with a “sea-going stock company” (Pringle 1953, p. 106; quoted in Leeson 2009, p. 41) is illustrated by the topics in the book.

But no succinct reasons for the assumption that pirates were entrepreneurs (in the layman sense) are given, so the reader is expected to accept the author's judgment. This is problematic since the economic theory and illustrations provided in the book show only how pirate institutions supported their organization and purpose – not necessarily that the organization entailed *a firm*. Undeniably, that pirates were formally and even contractually organized, and their collective endeavor motivated by profit, are certainly common and even necessary traits of firms. But they are not sufficient conditions.

Contrary to Leeson's view, pirate organization seems strikingly similar to that of traditional cooperatives (cf. Chaddad and Cook 2004, p. 351). Cooperatives¹ are often, like business firms, for-profit ventures, but suffer from unique governance problems: their basis in “ill-defined ownership” (Cook and Iliopoulos 2000) gives rise to collective action problems (Olson 1971) that require organization different from business firms (Hansmann 1988). Whereas the firm relies on ownership and control of assets as regulators of internal behavior, the cooperative often deals exclusively with members who have equal ownership rights and may be the cooperative's only customers. Many cooperatives, like the pirates, are “not primarily in the business of providing services to anyone other than their members” (Leeson 2007, p. 1051) and therefore often establish bylaws to regulate member influence as well as agents' authority.

In the remaining sections I discuss economic theories of the firm and how they pertain to Leeson's exposition. I show that there is insufficient theoretical support for the piracy/ firm analogy – and that the cooperative is a much more viable theoretical analogy.

¹ Cooperatives are often referred to as “patron-owned firms” in the cooperative literature to distinguish them from “investor-owned firms” or regular business firms (Hansmann 1988; 2000). I will here use the terms “cooperative” and “firm” for clarity.

The Coasean Firm

The study of the firm begins with Coase's "The Nature of the Firm" (1937), which offers the first real attempt to define the firm in economic theory. What characterizes a firm is here that it is organized through the *direction* of resources rather than relying on the price mechanism for resource allocation (i.e., the market). The firm, therefore, is that "system of relationships which comes into existence when the direction of resources is dependent on an entrepreneur [manager]" (Coase 1937, p. 393).

Whereas Coase's definition of the firm is relatively vague, he clearly established that the firm's *raison d'être* is the existence of transaction costs: "cost[s] of 'organising' production through the price mechanism" (Coase 1937, p. 390). Transaction costs arise because of difficulty in "discovering what the relevant prices are" (ibid.; cf. Hayek 1937 ; Hayek 1945; 1978), which means an entrepreneur-co-ordinator can organize efficient production at lower cost through directing resources to reproduce market allocation. The essence of the firm, therefore, is the "authority relation" (cf. Simon 1957a [1945]) that is established between the entrepreneur-co-ordinator and the factor because the latter "for a certain remuneration [...], agrees to obey [his] directions" (1937, p. 391; cf. Simon 1957b ; Williamson 1991 ; Williamson, Wachter and Harris 1975).

The Coasean view was further elaborated and formalized by Williamson, who identified that high levels of any (or a combination) of uncertainty, frequency, and asset specificity² (Williamson 1979) seems to predict the vertical integration of a transaction in a firm (cf. Chiles and McMackin 1996). The firm, what Williamson calls "hierarchy" (1991; 1996), is still, however, defined as the authority relation directing factors to reproduce efficient (market) resource allocation. The source of such fiat power is generally assigned the incomplete nature of employment contracts (cf. Simon 1957c, p. 184), but this authority is sometimes also explained by the existence of legal "forbearance" (Williamson 1991).

Whereas pirate ships were certainly "forborne" in the sense that Williamson uses the term (i.e., that internal conflicts are denied access to courts of law for rulings), they were lacking an authority relation. Pirate ship crews were not hired – they were the *owners* of the ship as well as the enterprise. It is true that they elected leaders (captain and quarter master) to manage the operation, but such leadership was heavily curtailed by the pirate crew requiring "the unrestricted right to depose any captain for any reason" (Leeson 2009, p. 30). Since they were all involved in the operation and therefore could easily monitor their "agent," they did not suffer from the principal-agent problem (Leeson 2009, p. 41). Furthermore, as

² Asset specificity is defined as "durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated" (Williamson 1985, p. 55).

owners they did not rely on hired labor with potentially conflicting interests and, hence, did not use employment contracts.

While the Coasean system is focused on the situation arising due to the utilization of employment contracts, ownership does not play a big role. It only plays a part in the initial creation of the firm, i.e. ownership of resources should decide who purchases factors and therefore establishes the authority relation of the firm. But it is only indirectly a factor in what defines a firm through identifying who directs and who is directed.

In the case of pirate organization there was no difference in initial distribution of ownership of the factors (the ship) since it was normally stolen. Pirates jointly claimed ownership of their ship as well as the returns from their piratical mission meaning that, just like in traditional cooperatives, “the principals were the agents” (ibid.) and had equal interest in the success of the mission.

Team Production

Since piracy is a group effort there was an obvious risk of shirking by individual pirates to profit from investing less effort (and be exposed to less risk) while distributing the potential “cost” thereof (loss of loot) on all others. The pirates, Leeson shows, attempted to solve this collective action problem through awarding incentive pay to “crew members who displayed exceptional courage in battle, were the first to spot potential targets, and so forth” (2009, p. 72) and provide for those injured in battle. While these measures should potentially have affected pirates’ behavior and willingness to work in time of battle, Leeson’s discussion on the separation of powers, regulated in the pirate code, provides a potential solution to the problems of team production that is suggested by Alchian and Demsetz (1972). They identified the problem of shirking in team production and claimed the solution was for workers to hire a manager and make him the residual claimant. In other words, through hiring an expert to monitor their efforts and provide him with the means to reduce members’ shirking, while being paid the residual, the members of the team would maximize their joint output.

While pirates were anxious to separate powers to avoid autocracy, through electing captains and quarter masters and clearly define their respective authority, their articles commonly granted the captain “absolute authority in times of battle” (Leeson 2009, p. 35). Centralized leadership would no doubt be more efficient in terms of goal-reaching, but allowing the captain unrestrained powers should also further increase the prospect of monitoring team behavior and hence reduce shirking. The role of the pirate captain in times of pursuit and battle would therefore be much like that of the monitor in Alchian and Demsetz’s view of the firm, who was in charge of

measuring output performance, apportioning rewards, observing the input behavior of inputs as means of detecting or estimating their marginal productivity and giving assignments or instructions in what to do and how to do it. (Alchian and Demsetz 1972, p. 782)

Indeed, the piratical enterprise has several commonalities with the view of the firm posited by Alchian and Demsetz – much more, it seems, than with the Coasean firm. Alchian and Demsetz define a firm as joint production by several input owners who have a common party enjoying the right to make decisions with respect to any individual input owner(s), who is the residual claimant and has the right to sell this status (1972, p. 783). According to this definition the organization of pirates is somewhat similar to the firm but also lacks key features, especially as relates to the status of the monitor. The captain is not the residual claimant as he is also a member of the crew; they all have equal claim and property rights to the ship and the loot, which deprives the pirate leadership of the main function and characteristic of the monitor.

Furthermore, the purpose of instituting captain and quarter master is substantially different from the purpose of the monitor in Alchian and Demsetz's firm. While both have management functions, the former is a member³ elected to provide the organization with certain services at fixed pay (share of loot) – and is subject to immediate deposition at any time; the latter is hired (externally) for his services, granted the power to hire and fire (renegotiate contracts), and paid the profit of the team effort. It follows that the former does not have the pecuniary incentives to extract as much as possible from a looted ship, while the latter can basically put every additional dollar in his own pockets (cf. Holmström and Milgrom 1994 ; Prendergast 1999).

The reason for this fundamental difference between pirate captain and firm manager lies in the structure of ownership and the consequent institutional mechanisms. For Alchian and Demsetz, ownership belongs to [only] the residual claimant whereas the pirate enterprise is commonly/jointly owned by all pirates to an equal degree much like a cooperative. Or, in Leeson's words, "[e]ach pirate crew member was [...] an equal contributor and part owner of the 'firm' in addition to being one of the firm's workers" (2009, p. 183). Furthermore, the articles in the pirate code regulate ownership and operations reminiscent of the bylaws in cooperatives.

³ Compare Hansmann's statement on cooperative governance that it is common for them "to require that most members of the board of directors also be members of the cooperative" and "that all or nearly all of the cooperative's directors not be hired managers" (Hansmann 1999, p. 397).

Property Rights Theory

Ownership structure as a basis for setting the firm apart from other organized efforts is further elaborated by Grossman, Hart, and Moore (Grossman and Hart 1986 ; Hart and Moore 1990). They base their definition of the firm on the ownership of residual rights (rather than the more limited residual claim rights), and state that a firm is a way for actors to regulate possible future conflicts and opportunistic behavior through establishing clearly defined property (and, therefore, decision) rights *ex ante* (Grossman and Hart 1986).

The firm is here identified as “a collection of physical assets” (Hart and Moore 1990, p. 1121) controlled by a single owner. The reason for acquiring control of all assets used in a production process arises from dispersed control potentially affecting the process outcome negatively. In other words, because dispersed control can easily lead to *ex post* opportunistic behavior by self-interested contractual parties (cf. Klein, Crawford and Alchian 1978) there may be cost reasons to integrate a production process through centralized ownership in a firm. The firm here becomes a means for minimizing *ex post* opportunism through establishing well-defined property rights to the assets used in the production process.

This means that the owner of the firm is also the owner of the means of production and controls them through his ownership – and enjoys the right to make decisions as pertains to the whole production process. In other words, laborers are in the Grossman-Hart-Moore firm salaried to carry out certain tasks using the tools owned by the firm [owner], which is in sharp contrast to the organization of pirates. The latter owned the means of production jointly and had an equal right to the collectively achieved “profits.” This is the reason they exercised voting as a means to appoint formal leaders and were able to reserve the right to at any time depose of those leaders. Only owners enjoy such control of the means of production.

Conclusion

Neither of these economic theories of the firm is sufficiently applicable on piratical enterprise. The reason for this is that the Coasean firm is based on the authority relation through employment contracts, a type of contract that was non-existent on pirate ships; the firm, as defined by Alchian and Demsetz, awards the monitor (manager) ownership rights in order to establish residual claim-based incentives for productive management, which also never happened on pirate ships; and Grossman-Hart-Moore defines the firm as centralized asset control rights, whereas the piratical enterprise was characterized by equal ownership and equal payment. The theories have in common a base on well-defined property or control rights – *ex ante* or *ex post* – whereas the pirates suffered from ill-defined property rights in joint property like cooperatives. Also, pirates’ one man–one vote basis for governance and decision-making regarding their joint property and collective interest, as well as the pirate code and their equal claim to and distribution of

profits, suggests that they were organized as a traditional cooperative (cf. Hansmann 1999; Chaddad and Cook 2004, p. 351).

Pirates' choice of governance structure should therefore be seen as a result of collective entrepreneurship (cf. Cook and Plunkett 2006 ; Burress and Cook 2009) guided by their interest in maximizing collective gain. Their criminal organization should therefore struggle with the same problem types as traditional cooperatives, especially horizon and portfolio problems. The former arises due to divergence between stakeholder claims on asset income and productive life of asset while the latter is a mismatch in risk preference and assumed risk in cooperative assets; both arise primarily for cooperatives due to ill-defined ownership rights and restricted transferability of such rights.

From the point of view of cooperative organization, the brutal sea dogs of history were indeed the rational economic actors as Leeson claims – in stark contrast to the violence- and liquor-loving thugs most of us tend to think of. But they were not organized in a firm; pirating was a cooperative enterprise and therefore needed to establish governance structures to regulate problems unique to cooperatives.

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