

The provision of lighthouses services: a political economy perspective

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Abstract Ronald Coase’s 1974 article on lighthouses and the Trinity House case, in particular, has triggered extensive debate on the notion of a public good, but also on the possibility of private production of public goods. The resultant literature has discussed the concept of private property and the characteristics of a public good, and offered an economic analysis of the status of lighthouses.

This contribution sets out to situate the debate in the context of an economic policy for which the lighthouse is an asset subject to political rent seeking. Thus, it highlights the fact that the characteristics of rivalry and exclusion, which define the public good, are in fact influenced by governments, which decide the nature of the services produced by lighthouses.

The weight of the institutional setting, together with political competition for the control of lighthouses, calls for interpretation relating to rent seeking. In this respect, the lighthouse, prior to being a capital asset, has already emerged as a political object that is a source of revenue for certain individuals.

Keywords Lighthouse · Rent seeking · Public goods

JEL Classification D23 · D61 · D72 · H42

1 Introduction

Coase’s article “The Lighthouse in Economics” represents a major contribution to economic analysis of lighthouses as such, but also to economic analysis. Above all, it reverses standard analyses by suggesting that private production of a public good is feasible. Coase illustrates this private production with an empirical case that of Trinity House (Coase 1974: 375).

The debate initiated by Coase’s article goes well beyond the lighthouse issue. It involves the respective definitions of private and public production, the role of the State, and the institutional design for producing a public good.

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In fact, Coase's paper highlights the possibility of an economic analysis of lighthouses, maintaining as it does that their building and management should not be in the hands solely of engineers, technicians, and bureaucrats. While it calls for an investigation of the economy of lighthouses as such, Coase's paper also stresses the need for giving more specific attention to the institutional framework and production conditions for lighthouse services. Its overt intention is a political and economic approach to lighthouses which leaves ample scope for consideration of institutional design and the associated political issues.

In the first section, it is shown that the Trinity House system cannot be described in terms of strictly private production, government involvement, and control being too significant for this to be a free-market example. However, Coase's article demonstrates convincingly that private entrepreneurs were of definite benefit in providing this kind of service and ensuring the safety for seaborne traffic—and all the more so in that subsequent public sector production was revealed to be unsatisfactory. However, Coase's article has been roundly criticized by commentators concluding that the production of lighthouse services was not a private enterprise and that the *de facto* association of private and public actors led to more problems than benefits, with the collapse of the institutional arrangement providing the final proof.

In the second section, the political importance of lighthouses is emphasized, which constitutes for the government a means of extracting additional revenue at the public's expense. The evolution of the British system demonstrates the importance of considering the institutional framework of the production of lighthouse services. The government is a core part of the institutional arrangement and can influence and shape it.

In the third section, the thesis is defended in that the evolution of the Trinity House system is explicable in terms of rent seeking activities. From this point of view, its collapse, far from proving that private production is unfeasible, reflects rent seeking competition. It points out changes in political coalitions, a political shift—the implementation of an ideology hostile to private property and previous institutional arrangements—and a new distribution of rent.

2 Trinity House as an example of private production of lighthouse services?

The Trinity House system came into being in Great Britain in the sixteenth century, when the construction and management of lighthouse services involved private entrepreneurs. It ended in 1836 when it was replaced by new modalities of lighthouse service provision.¹

The Trinity House case would show that private production of lighthouse services and the private production of a public good was possible. However, Coase's position was severely attacked by later contributors to the economics of lighthouses (Bertrand 2006, 2009; Van Zandt 1993). The main argument consists in stating that the Trinity House system did not constitute a case of private provision of lighthouse services. Indeed, government intervention was a considerable factor in the production of such services. Coase did not ignore that aspect when he mentioned that production required administrative authorization (a "patent") and the assistance of customs officials for the collection of tolls was needed. Moreover, the fees charged by lighthouse keepers were set with the agreement of the Crown (Coase 1974: 364). A similar line of attack was adopted by other scholars disputing the validity of Coase's example, while arguing that the private provision of lighthouse services is still possible (Block and Barnett 2009; Barnett and Block 2007).

¹This system kept the name of Trinity House. Today the corporation of Trinity House is responsible for the provision and maintenance of navigational aids, such as lighthouses, buoys and radio/satellite communication systems.

Moreover, Coase never claimed that production in the particular case of Trinity House was strictly a private affair (Coase 1974: 375). On the contrary, he emphasized the diversity of institutional methods for the production of these services (Ibid: 362) and that public production was not necessarily a panacea (Ibid: 364).

The production of lighthouse services can be interpreted as a strategic, trade-facilitating activity, and thus one industry subject to regulation and public intervention (Pöder 2010). In this case, the involvement of private actors with the government seems to be unavoidable. It reflects a particular structuring of political power, while also constituting a means of obtaining revenue for the government. Private production of a lighthouse services good still would remain possible and could not be excluded a priori. Historical cases support this point of view (Taylor 2001; Van Zandt 1993).

Moreover, the possibility of private production of public goods is strongly backed by theoretical arguments and empirical cases (Leeson 2008; Ostrom 2006 [1990]; Anderson and Hill 2004; Foldvary 2003; Klein and Fielding 1992; Klein 1990; Olson 1987; Block 1983). Private provision of a public good also depends on the characteristics of the good in question, the available technology, and the political choices (Snidal 1979). Thus, the importance of institutional arrangements has to be highlighted because it can favor or discourage cooperation between individuals and can make possible or not the production of excludable goods (Buchanan 1965: 13).

3 The constitution of a political rent: production of lighthouse services

Van Zandt (1993) asserts that the government can be conceived of as a supplier of institutional arrangements. Government intervention can reduce the cost of social management for the production of goods and services (Van Zandt 1993: 56). In this context, different institutional arrangements for lighthouse production are possible. In another interpretation of Van Zandt's argument, the government can make possible—but also impossible—private production of a public good (in this case lighthouse services) independently of whether or not this is technically feasible.

What must be considered, then is not whether private production of lighthouse services is possible, but why the government gave to private entrepreneurs the possibility of intervening in the sector of lighthouse services. According to Van Zandt's perspective, it appears that what was at stake was a reduction of administrative management costs (Van Zandt 1993: 56). The institutionalizing of the Trinity House system by granting a local monopoly to patent petitioners enabled generation of a surplus that was appropriated by the lighthouse owners and the Crown (Van Zandt 1993: 64). This was a means of generating not only direct income, but also revenue from the economic activity of ports on behalf of governments (taxes on products) (Pöder 2010: 329). Maritime commerce and the development of commercial fleets brought additional fiscal income via increased trade.

To a certain extent intervention of private entrepreneurs in production of lighthouse services can be interpreted as a productive outsourcing phenomenon which avoided capital outgoings while still ensuring revenue for the Crown.

The significance of state intervention lies in the fact that the lighthouse must be seen not only as an economic asset, but also as a political object. The first lighthouses served to mark entry into a sovereign territory (Van Zandt 1993: 58). They were also means of generating political rents. The patent system was clearly shaped for avoiding private good provision within a competitive market regime. Extensive intervention by the government in the operation of lighthouse services and the role of different boards for regulating these productive

activities reinforced the non-competitive production regime (Van Zandt 1993: 69). The political dimension emerges more clearly in the case of lighthouse provision in France, whose objective was a clearly political “control of the sea and the coastline” (Guigueno 2007: 35). The organization of the lighting of the French coast aimed at the distribution of a free service (for the user) via government-paid lighthouse keepers (Guigueno 2004: 26).

4 Production of lighthouse services as a rent seeking activity

As has been shown, the lighthouse service represented a source of revenue for government. It also entailed costly pursuit of transfers associated with the obtaining of a rent from the local monopoly of lighthouse service provision. Strictly speaking this is a rent seeking situation (Tollison and Congleton 1995: xi).

Indeed, in order to be able to build and manage lighthouse services, payment of an annual rent was required:

First, it granted to the entrepreneur the exclusive right for a term of years to build and maintain a lighthouse for a specific area in exchange for a fixed annual rent. (Taylor 2001: 65)

The payment of this rent guaranteed the establishment of a monopoly situation of production of safety services and the assistance of customs officials for extracting the payment of user fees. That protection can be seen as a kind of subsidy for production. Production in this instance was undertaken by private entrepreneurs in a context of delegation or subcontracting of production by the state and under the protection of the Crown.

Finally, his collection of revenues got a substantial subsidy from the state because of its readiness to use force to extract light dues from recalcitrant mariners. (Taylor 2001: 69)

However, this rent seeking activity was not cost-free. Tullock showed clearly the importance of implied costs associated with monopolies in the short and long term (Tullock 1967). Indeed, this close relationship between entrepreneurs and the government resulted in a de facto political alliance to maintain the benefits provided by a mutually advantageous situation. The government-entrepreneur coalition existed to collect and share a rent related to a monopoly of lighthouse services production (Coase 1974: 368). Moreover, lighthouse managers organized themselves politically to defend their monopoly rent against organized challenges. For protecting their rents, they formed a small but influential group within parliament (Taylor 2001: 57, n. 31).

Opponents of the Trinity House system, however, denounced the high user fees associated with the monopoly-protection the lighthouse keepers benefited. Pressure groups gradually convinced the authorities that this institutional arrangement was harmful to trade, and thus to the revenue to be drawn from it. They criticized the involvement of private entrepreneurs in the management of lighthouses. This struggle over rent became a focus for political interests, which resorted to the notions of defense of the public interest and the critique of private property for which Hume was the standard-bearer (Taylor 2001: 759–760). At the same time, there was less criticism of state intervention in the economy than of certain monarchical practices involving the granting of monopolies to certain parties (Taylor 2001: 761).

The Trinity House system was finally abandoned in 1836. Centralization of the management of private lighthouses amounted in fact to nationalization and the constitution of a

public monopoly. The policy of nationalization reflected also a new ideological orientation of hostility to private property. Indeed, the rights of private property no longer were considered to be absolute, and expropriation was justified in that it could serve the public interest without this interest being clearly defined (Taylor 2001: 751). In this respect, the institutional evolution of production of lighthouse services reflected a generalized movement of intervention in the economy and redistribution of property rights. This ideological shift was crucial for contesting the Trinity House system.

The advocates of lighthouse reform were thus not merely attacking corruption, they were attacking the very existence of private property in a public service. (Ibid: 764) Private ownership of lighthouses, though tainted with old corruption, was not criticized solely because it had arisen through government patronage: it was attacked more fundamentally because private property in lighthouses was held to be morally wrong and antithetical to the interests of society. The morality of reform was expressed in terms of the 'public interest'. The definition of this public interest was crucial to the success of lighthouse reform. (Ibid: 762)

This new public provision regime was characterized by consolidation of the monopoly rent for the benefit of the government and redistribution of a part of the revenue among other population groups (mariners and merchants). In fact, the economic rent associated with lighthouse provision did not disappear. Only the political coalition that benefited from it changed. The gradual change in modalities of financing, from a system of dues to collective financing via a tax, shifted the load to the population as a whole. This went hand-in-hand with the growth of a state bureaucracy, which leads Coase to say that the new administrative arrangement was perhaps inappropriate (Coase 1974: 374). In Tullock's terms, this means a larger deadweight social cost.

Reform of this system was therefore in the public interest as it would redistribute economic resources from lighthouse owners and pensioners to shipowners, and by implication to the public as whole. (Taylor 2001: 764)

5 Conclusion

Coase's article on the possibility of private production of lighthouse services highlights the fact that commonplace notions can sometimes conceal much more complex realities. Private production of such services is not impossible and the existence of alternative institutional arrangements makes it clear that there are more ways than one of providing them.

Coase's critics are unanimous in stating that Trinity House cannot be considered to be an example of strictly private production of a public good. The case of Trinity House and its nationalization does not demonstrate the impossibility of private production, but it does underscore the importance of the governmentally controlled institutional design.

Our interpretation suggests that the lighthouse is to be conceived of as an economic asset subject to political appropriation. The institutional evolution illustrated by the English example points up the political byplay relating to monopoly rent seeking, the role of private property, and the ideology that shapes state intervention. Economic analysis of lighthouses cannot then be fully comprehensive without being approached in terms of political economy.

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