

Asset specificity and holdups

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Specific assets are assets that have a significantly higher value within a particular transacting relationship than outside the relationship. To illustrate, consider the classic Fisher Body-General Motors case.² In 1919 Fisher Body undertook a very large expansion in its capacity to supply bodies to General Motors. Automobile bodies, like many other productive inputs, are not sold in a spot market. Therefore, if General Motors decided to stop purchasing from Fisher after Fisher Body made its capacity investments, the Fisher capacity used to produce bodies for General Motors could not immediately and costlessly be transferred to the production and sale of bodies to other automobile companies. Consequently, once Fisher Body made the investment, the plants Fisher built to supply General Motors had a higher value within the G.M. relationship than outside the G.M. relationship. The difference in value within and outside the General Motors relationship is equal to the G.M.-specific element of the assets.³

The economic relevance of specific assets is that they create the potential for holdups. Once a transactor makes a relationship-specific investment, its transacting partner has the ability to take advantage of the specificity to appropriate some of the rents the transactor expects to earn on the investment. For example, after Fisher Body made its somewhat G.M.-specific capacity investments General Motors could threaten to stop purchasing bodies from Fisher and impose a capital cost on Fisher Body equal to the value of the G.M.-specific element of Fisher's capacity investments. Therefore, General Motors could, in principle, negotiate to obtain part (often assumed in theoretical models to be half) of the value of Fisher's G.M.-specific assets, either by demanding a lump-sum payment or a reduction in future body prices. Consequently, because transactors expect that they may lose a share of the return on their specific investments when a holdup occurs, one of the economic costs associated with holdups involves the reduced incentive of transactors to make efficient relationship-specific investments. These costs, however, are reduced because transactors, aware of the risks associated with specific investments, design contractual arrangements that avoid the likelihood of holdups. Asset specificity and the associated holdup potential, therefore, is an important economic determinant of contractual arrangements.

Contractual Solutions to Potential Holdups

When transactors plan to make significant relationship-specific investments they often adopt explicit contract terms that, in combination with transactor reputational capital, reduces the ability and economic incentive for transactors to engage in a holdup. This use of a contractual arrangement to control the holdup potential associated with specific investments is illustrated by the Fisher Body-General Motors case, where a long-term contract was used to control the anticipated potential holdup problems. In particular, before Fisher made its G.M.-specific capacity investments, General Motors contracted to purchase all its closed auto bodies from Fisher Body over the next ten years. By making this long-term exclusive dealing commitment General Motors gave up the ability to hold up Fisher Body since General Motors could no longer threaten to switch its purchases to another body manufacturer. The contract therefore protected Fisher Body's large G.M.-specific investments.⁴

Of course, General Motors would not make such an exclusive purchase commitment without also receiving contractual price protection. In the absence of price protection Fisher Body could take advantage of the long-term General Motors exclusive commitment to raise body prices without worrying about General Motors switching its purchases to another supplier. The exclusive contract therefore included provisions whereby the price of bodies was set on a cost-plus basis that permitted Fisher Body to earn a normal rate of return on its capital investments in plant and equipment required to supply bodies to General Motors.⁵

Contractual solutions to holdup problems may include other ways to control long-term prices, with or without the presence of exclusive dealing, such as most-favored customer clauses or indexing to independently published price indices where appropriate. But these and other contractual devices designed to prevent holdup problems are inherently incomplete, in the sense that contracts do not accurately cover every possible future contingency or fully define all aspects of transactor performance in a court-enforceable way. Consequently, there may be significant contract negotiation costs associated with the presence of relationship-specific investments, as transactors attempt to negotiate advantageous contract terms that both reduce the probability they will be held up and increase the probability they will be able to take advantage of imperfect contract terms to engage in a hold up. In addition, transactors recognize that when they make specific investments and enter imperfect contracts they may bear rent-dissipating economic costs during a transitional contract renegotiation process when ex post conditions that are not covered by the contractual arrangement develop and a holdup occurs.

Ex Post Contractual Problems

Because real world contracts are inherently imperfect, there is a possibility in all contractual arrangements that a transactor will be able to take advantage of the agreed upon contract to appropriate some of the return on its transacting partner's relationship-specific investments. When this occurs the imperfect long-term contract terms used to solve potential holdup problems in the face of specific investments may actually induce holdups. This is vividly illustrated by the changes that occurred over time in the Fisher Body-General Motors contractual relationship.

In particular, the Fisher Body-General Motors contract did not cover the unexpected contingency that arose in 1922 when General Motors asked Fisher Body to build smaller body-producing plants co-located with General Motors assembly plants. Fisher resisted General Motors' demand for co-located body plants and used this development to negotiate a highly favorable adjustment in the contractual arrangement, whereby General Motors made half of Fisher Body's required additional capital investments. This resulted, under the unchanged cost-plus body pricing formula originally designed to provide Fisher Body with a competitive return on its capital investments, in a large wealth transfer from General Motors to Fisher Body. General Motors had little choice because it was operating under a long-term exclusive dealing contract, and therefore could not switch its purchases of bodies to an alternative supplier. Consequently, the exclusive dealing contract designed to protect Fisher Body's original General Motors-specific capacity investments against a holdup threat by General Motors created conditions whereby Fisher Body held up General Motors.

The Fisher Body-General Motors case demonstrates, however, that there are economic reasons to expect that a holdup, if it occurs, may not involve very significant rent-dissipating costs. Although Fisher Body clearly conveyed to General Motors in 1922 its reluctance to make efficient co-located plant investments, all the new Fisher Body plants built during 1922-24 were co-located with General Motors assembly facilities (Coase, 2000). However, this does not mean that Fisher Body did not engage in a holdup during this period. One must distinguish between how a transactor may threaten to hold up its transacting partner (Fisher refusing to make co-located plant investments) and how a holdup is actually accomplished (Fisher negotiating a highly favorable contract adjustment in return for agreeing to make the co-located plant investments).

If contract rights are clearly specified and transaction costs are low, as they generally will be with only two transactors who have similar information, we would expect a negotiated solution to be reached and contract terms adjusted to the new, post-holdup equilibrium in a way that minimizes rent-dissipating transitional economic inefficiencies. Therefore, it is not surprising that the holdup

was accomplished in the Fisher Body-General Motors case without an inefficient increase in transportation and other costs from mislocated plants. Instead, the holdup was accomplished by Fisher Body renegotiating the contract so that General Motors made a significant part of the required new plant investments. This decreased Fisher Body's capital relative to its sales and, under the pricing terms of the contract, increased Fisher's profitability and G.M.'s cost of bodies while avoiding any inefficiencies. In this way the total pie continued to be maximized while Fisher Body's share of the pie increased.⁶

However, in contrast to the rapid contractual adjustment made by Fisher Body and General Motors in 1922, a contractual impasse between Fisher Body and General Motors persisted during 1925-26 over the terms of a new adjusted Fisher Body-General Motors relationship and a required new Buick body plant investment in Flint. This resulted in transitional inefficiencies, as Fisher Body continued to supply Buick bodies from Detroit rather than from the more efficient proposed Flint location. These difficulties arose because General Motors also was negotiating to acquire the remaining 40 percent interest of Fisher Body it did not already own. General Motors firmly believed that these acquisition terms should not reflect the increased profit Fisher Body had been earning since 1922 on the renegotiated General Motors body supply contract. In 1926 General Motors, in fact, successfully concluded these negotiations on terms that did not provide Fisher Body any continuing financial return for its past holdup (Klein, 2007, pp. 20-22). Increased General Motors control associated with vertical integration also largely eliminated the possibility of any future Fisher Body holdup.

The economic benefit of increased control achieved by General Motors with vertical integration entailed the economic cost of a reduced Fisher profit incentive. It is this reduction in economic incentives associated with vertical integration that presumably explains why General Motors and Fisher Body did not adopt a full vertical integration-type of contractual arrangement in 1919 when they initially entered their relationship. They expected the particular long-term, fixed price formula, exclusive dealing contractual arrangement they designed could handle holdup problems while also preserving increased Fisher Body economic incentives. However, the analysis of the Fisher Body-General Motors case illustrates that because long-term contracts may create, as well as solve, potential holdup problems, vertical integration sometimes is the contractual arrangement that prevents potential holdup problems most cheaply. Integration avoids the difficulties that were created with the imperfect long-term, fixed-price-formula body supply contract. In fact, integration eliminated the need for any automobile body supply contract. Rather than attempt to specify

performance contractually, General Motors, as the employer/owner of Fisher Body, could now more flexibly organize production since it possessed the legal power to unilaterally make important investment and management decisions. And these control benefits associated with vertical integration at this point in time outweighed the costs of reduced Fisher incentives.⁷

Why Does a Holdup Occur?

Some economists are skeptical regarding the economic importance of asset specificity and associated holdups as a determinate of vertical integration. For example, Coase claims that ‘the incentive for opportunistic behavior is usually checked by the need to take account of the effect on future business’ and that there are ‘contractual devices that could be used to handle the problem’ (Coase, 2006).

Transactors do employ their reputational capital and contract terms to design contractual arrangements whereby holdups are avoided. In fact, the exclusive dealing contractual arrangement initially adopted by Fisher Body and General Motors can be explained in terms of these two economic forces. However, the fact that holdup problems are usually successfully handled with a combination of contract terms and transactor reputations does not mean that holdups never occur. Because contract terms are inherently imperfect and transactor reputational capital is limited, transactors know when they design their contractual arrangements that there is some probability that they may be placed in a position where unanticipated events push the contractual relationship outside what I have called ‘the self-enforcing range’ and that a holdup will occur (Klein, 1996).⁸

This probabilistic view of hold-ups should be contrasted with the view that a holdup involves deceptive or fraudulent behavior. Coase, for example, claims that ‘[o]pportunism is analogous to fraud’ (Coase, 2006, p. 260). And Williamson has also misleadingly defined a holdup in terms of deception:

By opportunism I mean self-interest seeking with guile. This includes but is scarcely limited to more blatant forms, such as lying, stealing and cheating. Opportunism more often involves subtle forms of deceit. ... More generally, opportunism refers to the incomplete or distorted disclosure of information, especially to calculated efforts to mislead, distort, obfuscate, or otherwise confuse. (Williamson, 1985, p. 47)

The major problem here is a semantic one because of the misleading connotation of ‘holdup.’ All that is necessary for a holdup to occur is that the contract governing a relationship where specific investments does not cover some unanticipated change in market conditions and that reputational capital is insufficient to prevent one transactor from taking advantage of these circumstances to shift

rents in its favor by appropriating some portion of the relationship-specific assets. The existence of a holdup does not mean that a transactor has deceived its transacting partner. In fact, the possibility of holdup behavior understood in this way pervades and fundamentally influences all market exchange and the contractual arrangements chosen by transactors.

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Notes

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- 1 Professor Emeritus of Economics, UCLA and Director, LECG.
 - 2 This highly cited case was first described in Klein, Crawford and Alchian (1978). There has been an ongoing debate regarding the facts and interpretation of events surrounding the case, with the most recent and complete statement of the facts provided in Klein (2007).
 - 3 Fisher Body's capacity investments to serve General Motors are referred to in the literature as 'dedicated assets.' See Williamson (1983, p. 519, 526) and Joskow (1987, p. 168, 170-72). Williamson describes five other

different types of asset specificity: site specificity, physical asset specificity, human asset specificity, temporal specificity and brand name capital (Williamson, 1991). We now know that the important G.M.-specific Fisher Body investments did not consist of Fisher Body investments in G.M. tools and dies. Although tools and dies necessary for the production of General Motors bodies were highly G.M.-specific, General Motors merely purchased and owned these physical assets. See Klein (2007).

- 4 Segal and Whinston (2000) mistakenly claim that exclusive dealing did not protect Fisher Body's G.M.-specific investments. In the Segal and Whinston model the only effect of exclusive dealing is to prevent a buyer from free-riding by using a seller's specific investments when transacting with other sellers. Since Fisher Body's G.M.-specific capacity investments could not be used by General Motors with another body supplier, General Motors free-riding could not occur and exclusive dealing is asserted to serve no economic purpose. Segal and Whinston recognize that once a seller makes specific investments a holdup problem exists because the buyer can threaten to stop buying from the seller and thereby substantially reduce the value of the seller's specific investments. But Segal and Whinston maintain that exclusive dealing does not protect against such holdups because the penalty that can be imposed by the seller on the buyer with exclusive dealing can be imposed independent of buyer behavior. However, this unrealistically assumes that Fisher Body could legally enforce the exclusive [Exclusive *what?*] and also decide not to supply General Motors whether or not General Motors attempted a holdup by threatening to purchase elsewhere. Once one more realistically assumes that Fisher Body can impose a penalty on General Motors only if General Motors attempts a holdup, exclusive dealing can be used to protect Fisher Body's G.M.-specific investments from the threat of a General Motors holdup. See Klein (2007, pp. 7-9).
- 5 General Motors also acquired a 60 percent ownership of Fisher Body at the same time it entered into this contractual arrangement. However, the shares of Fisher Body common stock owned by General Motors were placed in a five year Voting Trust over which Fisher had veto power and therefore did not prevent Fisher Body from holding up General Motors in 1922, as described in the following section. Furthermore, after expiration of the Trust General Motors could not use its 60 percent ownership share to unilaterally abrogate the Fisher Body contract and reverse the holdup because it could not legally vote its Fisher Body shares without respecting the minority Fisher Body economic interests. The negotiated agreement that resulted in the vertical integration of General Motors and Fisher Body in 1926, however, involved terms that clearly eliminated any continuing Fisher Body holdup return. See discussion below and Klein (2007).
- 6 This result is related to the costless holdup renegotiation assumption made in the property rights theory of the firm originally proposed by Grossman and Hart (1986).
- 7 The likelihood that vertical integration will be used by transactors to solve potential holdup problems in any particular case will depend not only on the extent to which specific investments are present, but also on a number of other factors, including the difficulty of contractually specifying performance, the uncertainty associated with future performance, and the level of reputational capital possessed by transactors. However, holding these other factors constant, integration is more likely the greater the relationship-specific investments made by transactors. Empirical confirmation of this proposition has been described as 'one of the great success stories in industrial organization over the last 25 years.' (Whinston, 2001, p. 184, 185).
- 8 The goal of contractual specification in this context often is not to create optimal incentives on some imperfect court-enforceable proxy for performance, but to economize on the reputational capital necessary to make a contractual relationship self-enforcing in the widest range of post-contract circumstances.