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Asset Specificity and Backward Integration

Comment

by

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The important topics of economic integration and asset specificity appear to me, and possibly to others, to be quite fuzzy. The process of fermentation which seems to be going on in these areas would benefit very much from a careful elaboration of clear-cut examples and models which would make it easier for people like me to develop some understanding of the issues involved here. Thus Michael RIORDAN'S [1990] paper, which offers a clear and penetrating discussion of a well-defined problem, is very welcome.

The paper discusses the issue of integration for two interacting firms: a downstream firm, which uses specific inputs from an upstream firm. The upstream firm is able, however, to redeploy its assets at some cost if production for the downstream firm ultimately fails to take place.

The upstream firm exerts an unobservable effort in producing the supply for the downstream firm. The outside alternative is to redeploy assets and produce for a spot market. That part of effort which yields no return on the spot market is sunk and creates asset specificity which may be large or small, depending on the parameters selected.

Two forms of integration are distinguished: *Profit integration,* which occurs if the downstream firm initially buys a fraction of upstream profit, and *control integration,* which occurs if the downstream firm initially buys the right to punish the upstream firm for choosing the outside alternative. The profit share measures the degree of profit integration, the size of the fine measures the degree of control integration. The influence of "sunkness" on both forms of integration is discussed by modeling the interaction between the two firms as a game with several stages which is solved by backward induction, and by looking at a numerical example.

The paper points out that the two forms of integration should be distinguished since "there is no apparent reason why the two types of ownership should be linked" (p. 19). This is an important point. But note that the ownership share, rather than the penalty, is taken as a measure of integration, whereas the size of the penalty may be a more appropriate measure of integration if we focus on the allocation of control. The paper correctly suggests that we should keep these distinctions in mind.

It is shown that profit integration is enhanced by specificity. It is argued that "the main explanation is that increased redeployability decreases the costliness of monopsony quantity distortions" (p. 12). Another way of phrasing this idea would be to say that profit integration occurs because of externalities: if redeployability is imperfect, the downstream firm influences profits of the upstream firm by the decisions it takes. If the downstream firm obtains some of the upstream profits, this will induce the downstream firm to partly take care of this interdependency, i.e. to internalize these externalities to some degree. Further, it is not clear to me how the monopsony interpretation can deal with the case of perfect redeployability. Here there would be no monopsony power, in some sense, but still some profit integration. This profit integration may be understood, perhaps, with reference to monetary externalities, since it still remains true that the downstream firm influences upstream profits through its price-setting behavior. Further, a central issue in the theory of integration is the explanation of the disadvantages of integration. (This has been stressed by GROSSMAN & HART [1986, 693]). In the example at hand, profit integration lessens upstream incentives. This seems to limit profit integration.

With regard to the integration of control, in the example studied we obtain the strange result that integration will never occur. This is interpreted in the paper as follows: "A general intuition behind this conclusion is as follows: Effective limitations on the agent's control rights undermine effort incentives, but has no direct effect on the principal's monopsony pricing incentives" (p. 17). I would suggest again that this could be rephrased in terms of (monetary and nonmonetary) externalities. But more importantly, the argument would suggest that the upstream firm should obtain control rights over the downstream firm rather than vice versa. This could not diminish investment incentives since the downstream firm makes no investments which are dependent on the interaction with the upstream firm. Such an assignment of control rights to the upstream firm has also a certain common-sense appeal: why should it be that an agent who makes no relevant economic choices should obtain control rights in the first place? It would be nice to hear some comments on this alternative assignments of control rights (to the upstream firm rather than the downstream firm) from the author.

With regard to the overall approach we should remind ourselves that Ronald Coase has in his Yale lectures commented critically on the specificity argument as a cornerstone for the theory of integration. He says: "I emphasize this point because, early in 1932, as I explained in my first lecture, I put forward essentially the same argument as that found in the article by Klein et al. and it was in part as a result of thinking about it, and rejecting it as a general explanation for vertical integration, that I arrived at the thesis of 'The Nature of the Firm'. In that article there is no trace of the argument about asset specificity." (COASE [1987, Lecture 3, 20–21]). He proceeds by citing the example of the A. O. Smith plant in Milwaukee which was, just like Fisher Body, a main supplier of automobile bodies for General Motors, but remained independent in contrast to Fisher Body, which became famous as an example of vertical integration arising from specificity. Coase essentially argues that problems of opportunism can be dealt with by reputation and long-term contracting. Coase cites the small arms industry in Birmingham in 1860 where specialism was carried out to an almost unbelievable extent in spite of the necessity to make highly specific investments in each workshop. Many other examples come to mind, and we may remember Alfred Marshall's praise of "the marvellous growth in recent times of a spirit of honesty and uprightness in commercial matters" as a very direct way to avoid opportunism, and that it is indeed "the modern growth of business morality" which renders the system of joint stock companies workable. From that point of view it appears that vertical integration occurs as a response to declining business morality. I mention this type of argument not because I hold that selfishness and opportunism are rare – quite the contrary – but because it points to what appears to me a general weakness of the specificity argument which is that, as a matter of fact, people display a mixture of opportunism and honesty which supplement each other but which we have hardly understood theoretically.

With regard to analysis, this implies a critique of backward induction but this is a controversial issue and I shall not go into it here. But even if we take the solution concepts as they are proposed, it would be nice to know whether the results depend on fine points in the game, i.e. on whether the upstream rather than the downstream firm has the last move, or whether the game can be expected to be repeated. It would be less useful if these things mattered. Further, it should be in the interest of all parties involved to contract away all inefficiencies which may arise, e.g. in the context of control integration, the reasons why this may not be feasible remain unclear.

To conclude, the paper offers a very useful starting point for a more penetrating examination of the specificity/vertical integration issue which may lead to a more profound understanding of these problems. The author stresses that his conclusions are only tentative because the model studied is very restrictive. This is true, but we need definiteness, and should hence study special cases in order to reach a higher level of understanding. It is only thereafter that we may throw the ladder of formalism and special cases away.

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