

Grossman-Hart (1986) as a Theory of Markets

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It's a great pleasure to be celebrating Sandy and Oliver's landmark paper. I would like to do so by describing briefly how the paper has influenced my thinking about the firm since its publication 25 years ago. My perspective, or at least my emphasis, is not quite the same as the original paper's, and it has evolved over time. That is the way it should be. Great papers tend to metamorphose, as one goes back to them over and over. But let me start with a brief rehearsal.

The paper opens with the question "What is a firm?" and proceeds to answer it in a way that at once seems obvious and yet is profoundly novel. Instead of focusing on the transaction as the unit of analysis, as Williamson famously put it, the paper suggests that the essence of the firm is in the decision rights that ownership of its assets confers. In a world of incomplete contracting, decision rights play a key role in determining the incentives of the owner—in the paper, the only role, really. When firm A buys firm B, the incentives of the owner of firm A become stronger, while the incentives of the owner of firm B (now a worker of firm A) become weaker. When the firms stay independent, the incentives are more balanced. It has been noted already that the theory has the desirable feature that one instrument—asset ownership—generates both benefits and costs of integration and a trade-off between integration and nonintegration. Actually, I just misspoke. The theory makes the further prediction that it generally matters whether A buys B or B buys A. I remember thinking at the time that this was a bit odd, because we were so used to the dichotomous choice between integration and nonintegration. Today I see the asymmetry as quite supportive

of the theory. The identity of the buyer in corporate transactions clearly matters. I believe more could be made of this empirically.

With this prelude, my next observation will sound strange. Over time I have come to see the paper as saying more about markets than about firms. I mean this as a compliment. The Grossman-Hart property rights theory is the first theory that explains in a straightforward way why markets are so critical in the context of organizational choice. The virtue of markets (nonintegration) is that owner-entrepreneurs can exercise their hold-up power. They can refuse to trade and go elsewhere. This right is a powerful driver of entrepreneurial incentives both in the model and in reality. Of course choice plays a critical role also in neoclassical models, but choice and hold-ups are never the drivers of organization.

This explanation should be contrasted with Williamson's analysis. Williamson takes as the starting point the idealized competitive market that would achieve the socially optimal outcome. But market outcomes, especially after asset specific investments have been made, can be expected to lead to hold-up attempts and costly haggling. This pushes some transactions out of the market and into integrated firms. On the other hand, firms face a variety of costs such as bureaucracy and low-powered incentives, which push in the opposite direction.

The weakness with this line of reasoning is that it does not provide a direct explanation of the virtue of the market, because the idealized, first-best market is taken as the default. A comparison of relative weaknesses rather than relative strengths determines whether the transaction ends up in the market or inside a firm. This may seem like semantics—looking at the same coin from two sides. But, as all of us who have worked on the theory of the firm know, it has always been easier to find reasons for integration than it has been to find reasons for market outcomes. Indeed, Williamson correctly identified “selective intervention” as the key puzzle to explain why a single firm cannot replicate the market when that is optimal and improve on the market by intervening when the market is suboptimal (e.g.,

because of hold-ups). But I think the multifaceted forces he identified as explanations, although relevant, failed to put the finger on the key point: the virtue of market transactions stems from the hold-up power conferred by ownership. The essence of the Grossman-Hart model (especially as extended in the Hart-Moore model of 1990) concerns the optimal distribution of that hold-up power.

One could go as far as to say that the property rights model in the Grossman-Hart paper is about the distribution of assets among individuals (the entrepreneurs) rather than firms. Indeed, this is what Hart and Moore explicitly assume in their 1990 property rights theory. One can always interpret the individuals as firms, but of course this leaves entirely open the question of how firms organize themselves internally. Also, it does not directly address one of the central questions for a theory of the firm, namely, why firms rather than the workers tend to own most if not all the nonhuman assets used in the production of goods and services. One explanation for this is suggested by a key result in Hart-Moore: complementary assets should be owned by a single individual. Doing otherwise would only lead to wasteful hold-ups. In my paper on the firm as a subeconomy, I offered another reason, also related to power. By putting all the nonhuman assets in the hands of the firm, those in charge of the firm will have maximal power to decide how the firm is organized and run.

Marx would have agreed with this characterization of the firm. But unlike Marx, who thought the primary purpose of the firm's concentrated power was to exploit the workers, in the logic of the (extended) property rights theory the purpose is to allow the firm to design more efficient organizational structures, in situations where markets function poorly, because of externalities (such as excessive hold-ups). Firms are far from democratic, but they are kept in check by the fact that workers, who own their human capital, can go elsewhere if they are unhappy—another illustration of the effectiveness of property rights.

The property rights theory has set us on a path to study formally the central role of power through decision rights in the organization of economic activity. I have tried to argue

that the main contribution of the initial property rights publications has been in providing a simple, elegant, and compelling explanation of a decentralized entrepreneurial market economy. Where we formerly had to resort to explanations of disintegration based on myriad dysfunctional firm features, we now have a single, clean decision rights structure to build on.

One of the most successful applications of the property rights theory has been in corporate finance, where the control theoretic view has become influential. The theory has also been helpful in thinking about strategic alliances and competitive strategy. Where the paradigm remains underutilized, paradoxically, is in the study of the internal organization of firms. There are some important contributions, such as Aghion and Tirole's study of formal versus real authority, the papers by Baker, Gibbons, and Murphy that incorporate relational contracts, and the paper by Rajan and Zingales on power within the firm. But much more can be done. Power can be and is distributed within the firm in complex ways to implement strategic objectives. Firms frequently restructure themselves, not just by moving people around but also by changing reporting structures, job descriptions, and remarkably the whole internal architecture of the firm. In all cases, decision rights are at the center: they are being regrouped and reallocated to gain more effective incentive and communication structures, much like an army regroups its troops in response to changing objectives. This ongoing dynamic, which can be done without procuring new decision rights, and therefore done more quickly, is something that seems to me ripe for serious empirical and theoretical studies.

The story I have told says that markets are good because of hold-ups and firms are good because of low-powered incentives that make it easier to control people and get them to cooperate. If this sounds like Williamson's work put on its head, it is so, because I wanted to emphasize how the decision rights perspective aptly brings out two different sides of the same organizational coin.

References

- Aghion P., and J. Tirole. 1997. "Formal and Real Authority in Organizations." *Journal of Political Economy* 105: 1-29.
- Baker, G., R. Gibbons, and K. Murphy. 2002. "Relational Contracts and the Theory of the Firm." *Quarterly Journal of Economics* 117: 39-84.
- Holmstrom B. 1999. "The Firm as a Subeconomy." *Journal of Law, Economics and Organization* 14: 74-102.
- Rajan, R., and L. Zingales. 1998. "Power in the Theory of the Firm," *Quarterly Journal of Economics* 113: 39-84.