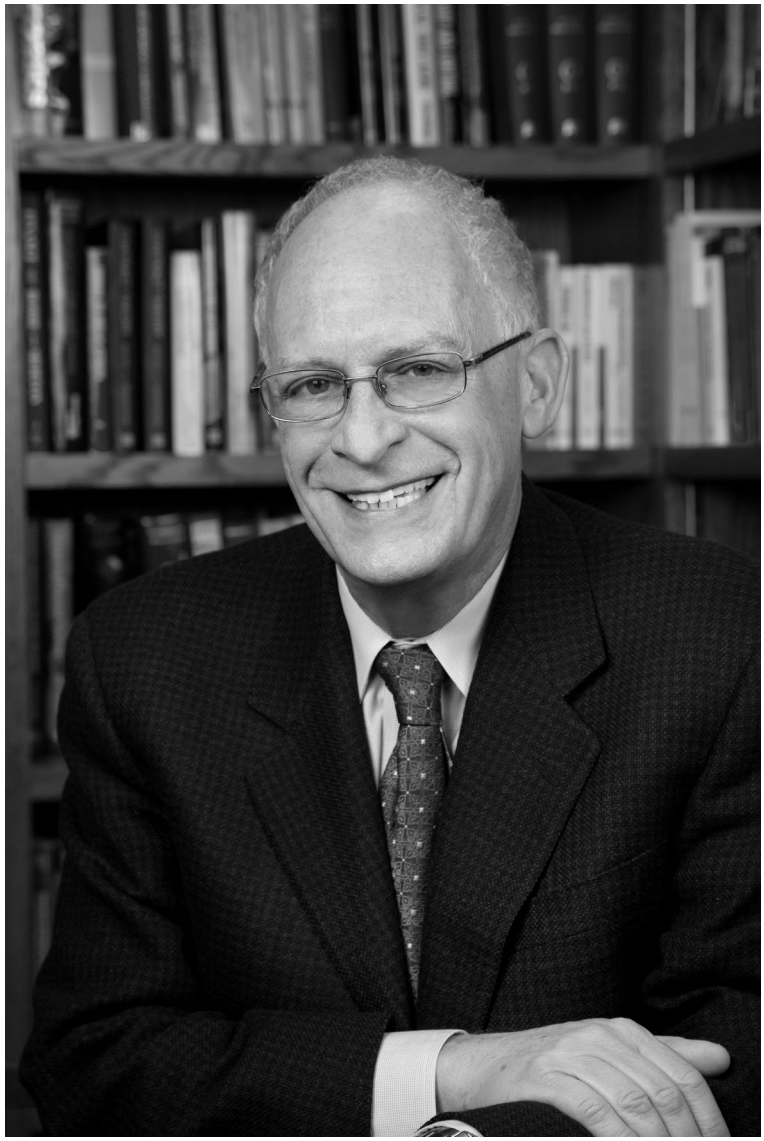
The Journal of FINANCE
The Journal of THE AMERICAN FINANCE ASSOCIATION

THE JOURNAL OF FINANCE • VOL. LXXI, NO. 3 • JUNE 2016



Oliver Hart

Fellow of the American Finance Association for 2016

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OLIVER HART WAS BORN IN LONDON in 1948 and educated at University College School (an institution whose name suggests that it is confused about its identity). He then studied mathematics at Cambridge before turning to economics at a time when a number of others were doing the same. The transition took place at Warwick University, where Hart spent one year learning basic economics and the second doing a master's degree. From there he went to Princeton (after some useful lobbying from one of his Warwick professors, John Williamson), where he did a PhD. At Princeton he met his future wife, Rita Goldberg, with whom he later had two sons, Daniel and Benjamin. He also learned at Princeton that mathematical economics was not the only economics field to which mathematics could be applied; there was something called economic theory. Michael Rothschild, who had recently moved from Harvard to be a professor at Princeton, was a crucial influence here.

While at Princeton, Hart became interested in the idea of a stock market economy and more generally incomplete markets. At some point he realized that standard (constrained) optimality arguments do not apply to incomplete market economies with more than one good or more than two periods. Further exploration led him to construct examples where multiple equilibria can be Pareto ranked; where an ex ante redistribution of wealth can lead to a Pareto improvement; where an equilibrium does not exist; and where adding a market can make everyone worse off.

Hart's thesis and resulting paper, published in JET in 1975, were well enough received to land him his first job at Essex University in 1974 and his second job at Cambridge in 1975. It is fair to say, however, that since economic theorists were engaged in other pursuits at the time, e.g., asymmetric information (and, in Europe, disequilibrium theory), the paper disappeared from people's radar screens for a while. It was "rediscovered" in the mid-80's when general equilibrium theorists started working systematically on incomplete markets. More recently, perhaps because of the financial crisis, macroeconomists have become interested in the kinds of pecuniary externalities that are at the heart of Hart's paper.

Although the practical importance of the inefficiencies identified in the 1975 paper can be questioned, the fact that the paper is still being talked about more than forty years after it was written is a pleasant surprise and not something that Hart would have predicted.

A major intellectual event in Hart's life occurred in 1976 when he spent the summer at Stanford and started collaborating with Sanford Grossman. Hart still remembers Grossman, who was already well known for his work on price

informativeness, first telling him that he was almost five years younger than Hart. There followed what seemed a long silence; Hart was literally speechless. Fortunately, he was able to recover from this and his collaboration with Grossman lasted for the next twelve years or so. Grossman also initiated him into Chicago-style thinking, which turned out to be very useful in Hart's transition from a mathematical economist to an "applied theorist". The work with Grossman led to a 1980 Bell Journal paper on the free rider problem in takeovers and a 1983 Econometrica paper on the principal-agent problem, among other things.

Perhaps most importantly, in the summer of 1983, Grossman and Hart started thinking about the question of why firms exist. Although there was a considerable literature on this topic, none of it was formal. Sitting in Grossman's Chicago office, Grossman and Hart spent intense days discussing whether there is a difference between a situation where an employer tells an employee what to do, and one where one party picks an outcome from a menu of price-quantity combinations. At some point they came up with the idea that a significant attribute of any contractual relationship concerns who has residual rights of control, that is the right to determine actions or make decisions that the initial contract has not specified. Such residual control rights are likely to be important whenever the initial contract is incomplete, an empirically leading case.

This work led to the 1986 JPE paper, and Hart has spent much of the ensuing years pursuing this line of research. Much of his later work was carried out with John Moore, whom Hart had been fortunate to meet when he moved to LSE in 1982; Moore was finishing his PhD there. (In 1984 Hart moved to MIT and in 1993 to Harvard, where he has been ever since.) The collaboration with Moore, which lasted more than twenty years, was the second major intellectual event in Hart's life. After first trying to model the reasons for contractual incompleteness they returned to the question of why firms exist, completing in due course their 1990 JPE paper. This paper, which extends Grossman-Hart, develops a model in which the distinction between non-human assets and human assets is particularly salient, and suggests that a firm without significant non-human assets may be rather flimsy.

In the mid to late 1980's, people began to realize that the ideas of incomplete contracts and residual control rights could be helpful for understanding the allocation of power between the providers and users of capital, that is, for corporate governance. In a 1988 JFE paper Grossman and Hart explored the voting structure of a public company and showed that one share-one vote is optimal in the absence of significant private benefits. Other work (including by Hart's students) studied the allocation of control between an entrepreneur and an investor, throwing light on real-world venture capital deals and strategic alliances. In a 1989 paper (published in QJE, 1998), Hart and Moore analyzed debt contracts, arguing that an investor's right to take control of, and liquidate, an asset if a debtor fails to pay may be what induces the debtor to pay in the first place. The paper is based on the assumption that the debtor can divert cash flows to himself. A companion paper, published in QJE 1994, makes the

somewhat more palatable assumption that an entrepreneur can (threaten to) quit, that is, withdraw his human capital from the project. Both papers have the feature that entrepreneurs or debtors will get some surplus or rent that cannot be credibly transferred to an outside investor ex ante. As a result, some good projects will not be financed and some projects whose going concern value exceeds their liquidation value will be terminated. The 1994 paper has found some application in the macroeconomic literature on fluctuations in the presence of financial frictions.

At the same time that this work was occurring, serious questions were being raised about the foundations of incomplete contracts. The ensuing debate convinced Hart that to understand contractual incompleteness we must move beyond the assumption of full rationality, and in recent work he has borrowed some ideas from behavioral economics. This approach, which starts with a 2008 QJE paper with Moore, takes the view that one reason parties write a contract is to get themselves on the same page, so as to avoid bad feeling later on; bad feeling can lead to counterproductive non-cooperative behavior ("shading"), which in turn causes deadweight losses. In other words, a contract is useful as a "reference point". Unfortunately, to get people on the same page may require some rigidity in the contract and this may make it harder for them to adjust to future events. The Hart-Moore paper studies the resulting trade-off between rigidity and flexibility and provides a new way of thinking about the employment relationship.

The non-standard nature of the assumptions made in the 2008 paper prompted some to urge Hart to test them in the lab. This led to a collaboration with Ernst Fehr and Christian Zehnder; the results were a 2011 AER paper and a 2015 JEEA paper.

It is much too early to judge how successful this new approach to contracts will be. Many economists, including financial economists, have so far been lukewarm about the idea. At the same time some who study real-world contracts, including lawyers, have been more enthusiastic. Hart has now spent long enough in the profession to know that ideas that catch on fast can sometimes fall from grace. While the opposite is rare these days, he is still hoping.