

By Patrick Marren

This month we salute an article that is a lifetime old, and use it to see where things might go in the next lifetime.

Well, the article can't be said to be a lifetime old, really, because although it has reached threescore and ten, the traditional biblical lifespan, its author, who was 26 at the time it was written, is still alive and kicking, the oldest Nobel laureate around.

Ronald Coase is 96 years old. He is presently listed as Clifton R. Musser Professor Emeritus of Economics at the University of Chicago Law School. In 1937, he wrote a little article in the journal *Economica* called "The Nature of the Firm." In it, he attempted to remedy a defect in the economic theory of that time. According to the prevailing theory, business firms should not have existed, because all factors of production should optimally have been sourced by the entrepreneur on the open market via the price mechanism. This included labor: employees should have been contracted as free agents, their daily cost determined by the market, by whose efficiency the lowest cost could be guaranteed.

Coase, looking down from his ivory tower at the London School of Economics, noticed that there were, in fact, employees in the economy, and he decided that maybe economics should have a theory that explained why that was.

So he got to work to find a new set of assumptions. Firms exist, he wrote, because there are costs to using the market mechanism:

- the cost of "discovering what the relevant prices are" for labor;
- "the costs of negotiating and concluding a separate contract for each exchange transaction";
- the cost of overly short-term and narrow contractual terms for labor provided.

"We may sum up this section of the argument by saying that the operation of a market costs something and by forming an organization and allowing some authority (an 'entrepreneur') to direct the resources, certain marketing costs may be avoided," Coase concludes.¹

Coase then went on to consider the size of the firm, and to ask why, if firms avoided costs so dandily, the entire economy was not just one big firm. His answers:

- "[T]here may be decreasing returns to the entrepreneur function, that is, the costs of organizing additional transactions within the firm may rise."
- "[A]s the transactions which are organized increase, the entrepreneur... fails to make best use of the factors of production."
- "The supply price of one or more of the factors of production may rise, because the 'other advantages' of a small firm are greater than those of a large firm."

Coase concludes: "...[A] firm will tend to expand until the costs of organizing an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organizing in another firm."

If Coase's theory still holds true, what should happen to the firm in the future?

Well, the cost of "discovering what the relevant prices are" has plummeted thanks to information technology; "the costs of negotiating and concluding a separate contract for each exchange transaction" have also plunged, thanks to computer programs and IT; and the risk involved in short-term and too-narrowly-focused labor contracts has presumably also declined, because where much of the absent world might have been opaque to a firm of 1937, today's firm has a sort of ubiquity that allows it to draw upon a deep and liquid pool of labor worldwide. Based on this, it would seem that the firm might be in decline: all its *raison d'être* seem to be diminishing.

Is the world economy headed for six billion sole proprietorships? Well, if you draw a straight line, you might think so. IBM used to have 475,000 employees; it has chopped off about a third of its permanent work force in recent years. Microsoft, IBM's successor as most powerful entity in information technology, never approached IBM's payroll, generally remaining about a tenth the size of the erstwhile colossus. And General Motors, of course, has shriveled from 800,000 employees a couple of decades ago to just a fraction of that number (fewer than 100,000 of them blue-collar workers).

On the other hand, advances in information and computer technology may have also worked against the decline of the firm:

¹ All quotations from R. Coase, "The Theory of the Firm," *Economica*, November, 1937.

- “[D]ecreasing returns to the entrepreneur function” may have been ameliorated; that is, the “costs of organizing additional transactions within the firm” may have declined, allowing an entrepreneur to “organize” an arbitrarily large number of transactions all by her lonesome.
- The ability of the entrepreneur “to make best use of the factors of production” has probably increased a good deal thanks to the leverage gained by instantaneous, often off-the-shelf, computerized analysis of operations.
- Because of this technological advance, “the ‘other advantages’ of a small firm” may not be nearly as much greater than those of a large firm; i.e., the leverage provided by technology allows a large firm with huge turnover to be managed far more readily than in the past.

But these countervailing factors do not affect the number of employees, only the ability to “organize additional transactions within the firm,” i.e., gross volume or revenues. Technological advance has vastly increased the productivity of the individual entrepreneur/manager as well as the individual employee, and that means far fewer employees but far greater revenues.

This trend toward outsourcing permanent employees, and substituting contract labor for them, seems likely to continue. It should eventually become far easier to estimate the marginal product of the labor of an employee, and thereby to see quickly whether a switch to contract labor would lower costs. Labor should also go from a standardized commodity (“Electrician’s Assistant”) to a highly differentiated value-added product available on-line, with each bell or whistle on one’s resume adding a readily measurable increment to one’s

compensation. Conditions of work should continue to become more flexible as well, with those willing to work long and odd hours being able to charge more for it, and those who want to take six months off confident that tomorrow’s Monster.com will provide them a job on their return.

There will certainly be hiccups on the way to this “utopia,” and there will undoubtedly be nasty side effects that we cannot foresee. There will be an interim of churn as companies lay off workers before the infrastructure for a deep liquid market for their labor is available. There will be huge pressure to stay connected 24/7 and work odd and long hours to sock away extra cash for work gaps. And any systemic problems that plague networked computing – violation of privacy, viruses, etc. – can be expected to plague the cyber-job-market of the future.

But thanks in part to a 70-year-old article, we can begin to dimly make out the possible outlines of this future.

The irony, of course, is that the future might look an awful lot like the all-contract-labor oversimplification that Ronald Coase set out to correct – or, maybe more intriguingly, the “one-firm economy” that he dismissed.

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