

Comment

## Too big to succeed?

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We hear the phrase 'too big to fail' a lot these days. It means a company that is so vital to the national economy that its demise would be catastrophic, so the government will go to extraordinary lengths to keep it afloat. General Motors Corporation, the sinking US car maker, is said to be too big to fail. Lehman Brothers, the investment bank whose collapse precipitated financial crises around the world, was too big to fail - although George W Bush's Secretary of the Treasury, Henry Paulson, didn't realize that in time. And, as the world credit market tries to become unstuck before a global depression sets in, we hear the same thing about two US bank holding companies, Bank of America and Citibank.

But what exactly does it take to make a company too big to fail? In the case of General Motors, it is the huge number of jobs that would be lost if it went under, but that consideration doesn't apply to a financial services firm - at least not directly. In the case of banks, it's the magnitude of the monetary loss that matters. Bank of America has assets of approximately \$2.7 trillion and Citibank has assets of around \$2.3 trillion. The GDP of the United States is \$14 trillion, so each of these banks has assets in excess of 14% of the yearly output of the largest economy on Earth. That's too big to fail.

But I would argue that, if you can be too big to fail, you also can be too big to succeed. Your very size can be your undoing, as it may have been for the huge, lumbering dinosaurs, who weren't flexible enough to survive the global catastrophe that our small, furry, mammalian ancestors were able to weather.

Consider the two giant banks. Over \$2 trillion in assets sounds great, right? Well, maybe, but there's also the small matter of their liabilities. Both banking companies hold enormous quantities of so-called 'toxic securities', which is a polite way of saying mortgage-backed debts. As many of the mortgages are effectively worthless, these companies may

have huge liabilities. It's estimated that there might be as much as \$11 trillion of such debt in the US economy, because many large banks essentially bet the farm on the incredibly naive idea that house prices would rise forever. The fact that they had always gone through cycles of rising and falling for, oh the previous 5,000 years or so, seems to have been lost on the self-styled geniuses who created the mess we're in.

The real problem, though, is that nobody knows if that \$11 trillion figure is right, because nobody knows what the toxic securities are really worth. They may be worth anything from close to their nominal value to zero, and that's a heck of an error bar. So let's look at Citibank. Yes, it has \$2.3 trillion in assets, but it also has big liabilities. How big? It's unknown. There might be, say, \$1 trillion in liabilities, in which case Citibank is in great shape. But there could well be \$3 trillion in liabilities, in which case this enormous bank is actually broke. And no one, not the chief executive of Citibank nor the head of the US Treasury nor a gypsy reading tea leaves, can say which is the case. The banks had grown so large, and had created such an elaborate web of interdependent, chopped-up, over-leveraged securities that their own financial people had no real idea of how much debt they were taking on.

In other words, I think Bank of America and Citibank (and Lehman Brothers and most of the other companies at the heart of the global financial crisis) have become too big to succeed because they are too big to be managed. No one individual - or group of individuals - can assimilate the amount of information needed to keep tabs on what goes on at a company that size, so even if they themselves are not crooked or incompetent, they are fated to be hostages to crooked or incompetent people who work, undetected, at some lower level of the Byzantine corporate structure. Yet until recently, these companies were touted as the epitome of excellence, precisely because, through mergers and acquisitions, they had grown so enormous.

Why do we mistake growth for success? When did sheer size become equivalent to excellence? Because a monomaniacal insistence on being the biggest so often derives entirely from the person at the top, it seems fair to ask if there isn't some psychological explanation. *Washington Post* columnist Sally Jenkins has a marvelous article in the 19 February 2009 issue, 'Armchair Field Generals, Getting Sacked on Wall Street', in which she notes that the hypercompetitive CEOs of large corporations were usually good sportsmen, but never quite good enough to become great. "Maybe the real lesson," she writes, "is to beware of the wannabe. Some of these people seem to fall into the dangerous category of 'pretty good' athletes ... Experience plus some armchair Freudian analysis tells us there are a fair number of overcompensated jerks out there who almost made it in sports ... There's the sneaking suspicion that more than one shareholder is suffering from these guys' sublimated failures to reach the top in the more primal competitions of their youth ... The most important quality of leadership," she goes on to state, "is not competitiveness, but judgment".

And as corporate boards, which appoint CEOs, are usually stocked with present or past CEOs of other corporations, it shouldn't surprise us when these win-at-all-cost shortsighters pick people like themselves to head the companies they oversee. And so the culture of 'whoever has the most when he dies, wins' goes merrily on.

But where did that culture come from, and why did it get so out of control? I think the answer might be pretty simple, and if I'm right, it explains why I also think the current debate about excessive CEO compensation misses the point. You will recall that, as part of the financial bailout, the government proposed to limit the bonuses and other payouts to the CEOs of the corporations receiving federal funds, which provoked an immediate outcry on the part of their boards, the claim being that, without enormous compensation, companies would not be able to hire or retain the best people. Don't worry about this side issue, they said, fix the real problems.

Well, never mind that 'the best people' have just lost hundreds of billions of dollars and nearly wrecked the economy of the world. (I could do that, and would happily accept a lot less in pay and bonuses than they keep demanding.) And never mind that I am unaware of a single study that shows a correlation between the salary and bonuses paid to executives and their talent (in fact, in many professions, like ours, money usually isn't the motivating factor in a career at all). The uproar in the United States over bonuses just paid to some of the very employees of the insurance giant AIG who caused the mess that company is now in suggests that the public has realized something that the Bush Administration never did and that the Obama Administration may not have figured out yet: CEO compensation is not a side issue; CEO compensation is the

problem. If you offer outrageous salaries to people who run your companies, and give them even more outrageous bonuses if they increase share prices and revenues - not profit, revenues - then it stands to reason that you will probably attract greedy, aggressive people who are only interested in short-term results. That's what created the Wall Street culture that's got us into this fix.

And the reason you're reading this in *Genome Biology*, instead of in *The Economist*, is that I fear this culture may now be spreading, like some virulent flu strain, to the pharmaceutical industry. Look at what has happened in the past 15 years. A wave of mergers is threatening to reduce the number of so-called 'big pharma' companies to a handful, and the results haven't always been pretty. Pfizer almost choked to death from swallowing Pharmacia/Upjohn a few years ago, and now is planning to acquire Wyeth. Merck has announced plans to merge with Schering-Plough. And analysts (more about them later) are busily proposing other fusions.

I'm not sure this trend makes much sense from the point of view of the primary purpose of these companies, which is to discover new drugs (although in the short term it may help fill one of the companies' empty pipeline). There are no data indicating that increasing the size of a pharmaceutical company leads to increased ability to make pharmaceuticals. In fact, there are worrying suggestions that it may often do the opposite. Innovation usually scales inversely with bureaucratic complexity. If a merger or acquisition is proposed solely for the purpose of acquiring a drug that one company makes, longer-term issues of research complementarity or synergy of talent might get secondary consideration, leading to internal culture wars and strategic paralysis.

Recent history may bear this out. Despite more than a decade of mergers and acquisitions, big pharma actually makes no more drugs per company today than it did in 1995 (although one has to be careful to take into account drug approval rates by regulatory agencies, which also change with time). Larger companies also have a tendency to be more conservative, so the worry is that innovation could suffer as firms merge. Biopharmaceuticals, the newest trend in the industry and the source of about 50% of its profits last year, originated in biotechnology companies, not pharmaceutical houses. The notion that proteins such as antibodies could be profitable drugs was resisted for years by big pharma, which is now scrambling furiously to catch up.

Of course, giant pharmaceutical companies can buy innovation, new targets, and even lead compounds from small biotech companies - and frequently do. That may well be the future: big pharma 'outsourcing' target discovery and some other aspects of innovation to smaller, independently-operating biotech arms, with the parent company focusing

on chemistry, testing, and marketing. It might not be a terrible model, but I still think we'd end up with fewer drugs, since the large pharmaceutical companies actually used to discover the bulk of them, and there are a lot of weak biotechnology companies out there.

Industry analysts love to tout mergers and acquisitions as tools to raise share prices, and if stockholders clamor for their advice to be followed it can seriously affect those share prices. I've never understood why analysts seem to exert such influence on the market. I've known a few, and I have to say I was not that impressed. It seems crazy that part of the financial health of companies whose output is so important to human health should rest with people who are not scientists or business executives, who don't have the public welfare in mind, and whose track record is spotty, to say the least.

Look, I'm not trying to bash the pharmaceutical industry here. I have enormous respect for it, and for the people who work in it: most of them are motivated by a sincere desire to improve the health of mankind. It's that respect that leads to my concern for the industry's own health. Some mergers and acquisitions are good ones, of course, but I remain unconvinced that, overall, a few huge drug companies will innovate better than a larger number of smaller ones, even with the help of biotech partners.

The notion that something can be too big to succeed shouldn't be that foreign, because it even applies to people. There's a famous example of an individual who became so big and lumbering that he was easily bested by a smaller, more nimble adversary. You'll find his story in Chapter 17 of the First Book of Samuel. His name was Goliath.