Written by **Charles Scaliger** on March 29, 2011

# Financial Sector Lures Math Talent from Industry


Credit Time magazine for identifying, however imprecisely, a very important but little understood consequence of the modern Federal Reserve-based financial system: a “brain drain” that is luring many of the best and brightest from math, science, and engineering into finance. “Wall Street,” notes Time’s Rana Foroohar, “hires more math, engineering and science graduates than the semiconductor industry, Big Pharma or the telecommunications business.” The author continues:

As one mathematician-turned-trader friend recently put it to me, why should he work on new high-tech products at Bell Labs when he could make five times as much crafting 12-dimensional models of the stock-buying and -selling behaviors of average Joes for a major global-investment house, which could then turn around and make massive profits by betting against those very patterns?

This hiring of “quants,” as they are known in the Wall Street vernacular, is a comparatively recent trend, dating from the bubble of the ‘80s and ‘90s, when faith in the infallibility of fiat money-based finance was at an all-time high. The Kauffman Foundation, in a new study, “Financialization and its Entrepreneurial Consequences,” shows convincingly that a ballooning financial sector has cannibalized other, more productive sectors, as evidenced by the fact that the financial explosion of the ‘80s and ‘90s was paralleled by lower rates of new business formation. In fact, business startup rates reached a plateau in the 1990s and have stayed the same ever since. The finance sector, however, has soared to unprecedented heights since the Great Depression. Write Paul Kedrosky and Dane Stangler, authors of the Kauffman Foundation study:

> Even during the peak years leading up to the Great Depression, the U.S. financial services industry never rose above 6 percent of GDP, a figure that took until 1990 for it to regain. Since then, the industry has continued to carve out an ever-larger position for itself in the economy, to the point that it now employs 6.5 million people and accounts for 8.3 percent of GDP.

The study goes on in some detail to describe the “cannibalization effect,” whereby the financials are pulling talent out of math, science, engineering, and technology, and discouraging entrepreneurial activity in these sectors. By all appearances, America is becoming a nation of financiers, in which the lion’s share of all capital is pooled in financial assets rather than factories, machinery, and warehouses.

All of this is part of the grotesque and all-encompassing distortion of economic reality encouraged by the Federal Reserve System. The ability of America’s central bank to create money at will has created two powerful incentives for the explosion of the financial sector: a constant flow of easy credit (resulting in a systemic addiction to debt, or “leverage,” as it is known in Wall Street parlance) and an ever-increasing demand for risk dilution (stemming from the precarious and arbitrary character of fiat money and those who manage its supply). The former incentive has been responsible for the vast inflows of new money that supercharge the securities markets and enrich the wealthy and well-connected while leaving the rest of us relatively unaffected. The latter has driven the creation of ever-more exotic and complex investment vehicles, like the now-infamous mortgage-backed securities that ruined the global economy. Additional distortion has been introduced by government subsidies of debt like student loans and mortgages, but none of this could ever have occurred on such a vast scale without the money spigots at the Federal Reserve. The giant sucking sound out of non-financial sectors has been driven by a decades-long pumping sound at the Fed.

The consequences of this enormous distortion of assets and misallocation of talent are impossible to know fully. It is perhaps significant that the last time the financial sector was dealt such a blow, America enjoyed a rush of new scientific and technological advances. In the 1930s and 40s, such modern contrivances as televisions, transistors and jet engines were invented, automobiles and airplanes improved enormously in speed and reliability, and silent films became “talkies.” In the realm of science, men learned to split the atom and discovered the structure of the DNA molecule. But today, the era of celebrity scientists like Einstein, Pauli, Watson and Crick, and of epoch-changing inventors like Edison and Goddard, seems to have passed. Only the fields of medicine and information science have flourished over the last 30 years — because those two fields are still very lucrative. It is interesting that the very term “high tech,” which 40 years ago would have connoted everything from robotics to rocket science, is today synonymous only with computers and the Internet. Gone are expectations from my youth of a *Jetsons*-esque future.

On the other hand, as the economic and financial crisis continues to grind away, a contraction of the financial sector is inevitable. If that means more of the best and brightest will forsake finance and dedicate their talents to invention and entrepreneurial activity, we may yet see a flowering of new science, technology, and capital formation that will take us to unimagined heights.