The Economist

Finance & Economics / Buttonwood

What sparks an investing revolution?

Ideas that emerged from the University of Chicago in the 1960s changed the world. But as a new film shows, they almost didn't.

When it comes to investing, no change has been as great as that which began with researchers at the University of Chicago in the 1960s. Their financial-theory revolution changed the way that almost everyone invests, and made speculators many trillions of dollars.

The transformation is the subject of "Tune Out the Noise", a documentary by Errol Morris, an Academy Award winner, which held its premiere in New York on March 6th. His film includes interviews with academics and investors, such as Eugene Fama, Myron Scholes and David Booth, who took ideas about market efficiency and diversification from the textbook and put them into practice in the markets. This led to a surge in the use of data and a disciplined focus on costs, in turn providing the foundation for modern passive investing.

Mr Morris's film may, in theory, be about brilliant individuals, but its most powerful message is about the role played by chance. History, like markets, is affected by randomness, and luck brought together the right people at the right time. Each had to be present for the financial revolution to emerge.

The University of Chicago's role is just about the only part of the story that happened by design. It had become the nexus for financial research owing to its reputation for excellence in economics. The Centre for Research in Security Prices was established there in 1960, and its wealth of data on the price of bonds and stocks over decades enabled the academics to do their work.

Randomness is apparent just about everywhere else. Although Mr Fama, who would later win a Nobel prize for his work

on asset pricing, completed a doctorate at Chicago in 1964, he almost never made it to the university. After completing an undergraduate education at Tufts University, he had to chase up his application to Chicago, discovering that it had never been received. On phoning the university, he reached the dean of students by chance, who told him about a scholarship for Tufts graduates, before offering it to him on the spot.



ILLUSTRATION: SATOSHI KAMBAYASHI

It was a similar story for Mr Scholes, another future Nobel laureate. In the summer of 1963 he started a job as a computer programmer despite scant expertise. The six other programmers who were hired failed to show up for the job, leaving Mr Scholes alone to assist in the financial research of other academics. He took to the work, abandoning his plan to return to his family's book-publishing company, and was in time offered a place on the university's doctoral programme.

Mr Booth, whose name now adorns Chicago's business school, and Rex Sinquefield, his business partner, put the academic ideas into practice by co-founding Dimensional Fund Advisors, a firm that today boasts \$777bn in assets under management. In 1969 Mr Booth narrowly avoided being made to fight in the Viet-

nam war, when a lenient officer postponed his conscription since he planned to study for a PhD. Mr Sinquefield did serve in the armed forces during the war, but poor eyesight kept him from combat.

A few twists of fate—an unanswered phone call, a prickly recruiting officer, more diligent computer programmers or better eyesight—would have prevented some of the men from reaching Chicago. Without the confluence of thought, investing might look very different today, making the world much poorer.

Such happenstance is found elsewhere, too: other parts of economics and nuclear physics, for instance, relied upon the concentration of talent in America after geniuses, often Iewish, fled from the Nazis. In the 1950s Silicon Valley looked to be an unlikely home for the American tech industry, with corporate research mostly taking place on the east coast. That changed in large part because William Shockley, an inventor of transistor technology, set up his own firm in the San Francisco Bay Area. The company's employees went on to establish giants including Fairchild Semiconductor and Intel. Shockley had picked the area simply because he wanted to be close to his elderly mother.

"Tune Out the Noise" leaves viewers wondering where the next investing revolution will come from. Quantitative trading has speeded up market activity, which is not quite as transformative as the changes that emerged from the 1960s. Some fret that cryptocurrencies are the most significant newish innovation, and that they are the preserve of speculators and criminals. But, in time, more useful ideas could emerge from the industry. There is always a chance.

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