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Richard Thaler, PhD: Founding Father of Behavioral Economics

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Richard H. Thaler, PhD

Founding Father of Behavioral Economics

Richard Thaler is considered one of the founding fathers of behavioral economics, the nexus of economics and psychology—specifically how people and organizations make decisions that have negative consequences and how they frequently repeat these mistakes. Years of observing human behavior have convinced Thaler that efficient-market-based economic theories are inadequate because they fail to account for the fact that investors do not always act rationally or logically. In the best-selling book Nudge, *Thaler and co-author Cass Sunstein explored how people make choices and what processes and structures might lead to better choices. In* Nudge, *Thaler and Sunstein advocate strategies that do not force anyone to do anything, yet effectively promote good choices.*

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Richard H. Thaler, PhD

Thaler was born in northern New Jersey in 1945 and grew up as the oldest of three boys. His mother was a school teacher before becoming a stay-at-home mom, and his father worked as an actuary (Karp 2012). He earned a bachelor's degree from Case Western Reserve University in 1967. Although he was interested in psychology, he studied economics because he thought a degree in that field was more likely to help him get a job. His father hoped he would become an actuary, but Thaler realized early on that his penchant for independent thinking precluded this choice of vocation (Karp 2012). He earned MA and PhD degrees from the University of Rochester in 1970 and 1974, respectively. The title of his dissertation was "The Value of Saving a Life: A Market Estimate."

Thaler is the Charles R. Walgreen Distinguished Service Professor of Behavioral Science and Economics at The University of Chicago Booth School of Business, where he also directs the university's Center for Decision Research. In addition, he is co-director—with Robert Shiller—of the Behavioral Economics Project at the National Bureau of Economic Research. He is currently president of the American Economic Association. Before joining the University of Chicago faculty in 1995, he was the Henrietta Johnson Louis Professor of Economics at Cornell University's Johnson Graduate School of Management, where he also directed the university's Center for Behavioral Economics and Decision Research; and before that he was a faculty member at the University of Rochester. He is also the founder of Fuller & Thaler Asset Management, a firm that manages money for pension funds and other clients.

In addition to Nudge, *Thaler has written or edited five other books, including* Quasi-Rational Economics, Advances in Behavioral Finance *(volumes 1 and 2), and* The Winner's Curse: Paradoxes and Anomalies of Economic Life, *which incorporates many of his "Anomalies" columns adapted for lay readers. His most recent book is* Misbehaving: The Making of Behavioral Economics, *which was published in 2015. A widely published author of professional articles, he also has served as an associate editor of the* Journal of Accounting, Auditing, and Finance; Journal of Business; Journal of Behavioral Decision Making; Journal of Risk and Uncertainty; *and the* Quarterly Journal of Economics.

In June 2014, Professor Thaler spoke with members of the Journal of Investment Consulting *Editorial Advisory Board about his work in behavioral economics and finance. Taking part in the discussion were Margaret M. Towle, PhD, CIMA®, CPWA®, CAIA®, editor-in-chief of the* Journal; *Mark Anson, PhD, Bass Family Office; Edward Baker, The Cambridge Strategy; Mike Dieschbourg, CIMA®, Federated Investors; Ludwig Chincarini, PhD, University of San Francisco and IndexIQ; Ronald Kahn, PhD, BlackRock; Matt Morey, PhD, Pace University; and Meir Statman, PhD, Santa Clara University. This interview is the sixteenth in the* Journal*'s Masters Series, which is devoted to topical discussions with experts and visionaries in finance, economics, and investments.*

Margaret Towle: Thank you for participating in our Masters Series. We would like to start with a question we ask all of our Masters. What were the major factors that helped shape your career and bring you to where you are today? Please talk about your major achievements, as well as what you view as your greatest challenges.

Richard Thaler: I'm a professor, I've never had a real job, and my career has been one as a professional troublemaker. That's something that came naturally to me as a kid, and I was lucky enough to figure out a way to earn a living doing that. The people who had the biggest influence on me were Danny Kahneman[1] and Amos Tversky,[2] two psychologists whom I was lucky enough to spend a year with in 1977 and 1978 when I was starting to take the idea of behavioral economics seriously. Along the way, I've had many collaborators who did all the work.

Margaret Towle: What do you consider your greatest challenges, either academically or in some of the other work you have done?

Richard Thaler: I think the greatest challenge was what my colleague Colin Camerer[3] once called the sufficiency bias. That term is a bit obscure, so let me explain it. If you present some anomaly or fact, and somebody can construct a rational explanation for that fact, regardless of how implausible it might be, that explanation is considered sufficient to render the anomaly irrelevant or unimportant. Another way of putting it is that economists give rational explanations the benefit of being the null hypothesis that has to be rejected. So throughout my work, it's been necessary to (1) discover some empirical fact, (2) offer some behavioral explanation for the fact that's consistent with empirical findings in psychology, and then (3) rule out all other explanations for that fact—and that's a challenge.

Margaret Towle: Given your vantage point as an academic, what do you see as the major trends in the area of behavioral finance today?

Richard Thaler: The field of behavioral finance has grown so quickly that I am no longer on top of everything that is coming out, so let me use the trick my students usually use when confronted with a difficult question, and that's to answer a different question. I think it's fair to say that the area of the financial industry in which behavioral finance has had its greatest impact has been in the design of defined contribution retirement schemes. I think those plans, like 401(k) plans, were headed in a bad direction. When the plans got started, they typically included fewer than ten options, but the number of options started growing rapidly. When I joined the University of Chicago faculty, we had two providers, one of which was Vanguard. I think we had every fund Vanguard offered as an option, aside from the tax-free municipal bond funds, which they had the foresight to remove; otherwise, some people would have taken them. It's a really bad idea to offer people more than a hundred options in a plan; nobody can deal with that. So I think the ideas that came out of behavioral research—automatic enrollment and automatic escalation, or "save more tomorrow" as Shlomo Benartzi[4] and I called it, plus sensibly created and reasonably priced default investment vehicles like target date funds—have transformed that industry. If these three things are in place, along with a sensible match, you're pretty much assuring that participants have at least a decent chance at a B+ retirement portfolio. If we could get rid of company stock, we would get up to A–, but that's been a stubborn relic.

Meir Statman: I have a question related to what you just said. We know that the design elements being introduced into defined contribution plans are enormously successful, but have they left behind some people who could not be nudged into saving? Many of these people are the ones we care about most—that is, low-income workers who switch plans and employers frequently and just cash out. What can we do to help them?

Richard Thaler: Well, designing these types of plans is all about tradeoffs. In the book Cass Sunstein and I wrote, *Nudge*, we devised policies that don't force anybody to do anything. We're criticized for that on the left and the right, which makes us think we're doing things about right. People on the left say nudging isn't enough; you should just force people to save. Actually, most universities do that, including mine, and that's a point of view. Social Security is designed that way. But if you do that, it will hurt some people who have good reasons for not joining a retirement plan. The first couple of years I was an assistant professor, I did not contribute because I had so much student debt I decided to pay that off first. There could be many sensible reasons for not joining, at least not immediately. If you force people in, you'll catch the ones who would otherwise be lost and you'll hurt others. Automatic enrollment often results in more than 90 percent of eligible workers being enrolled, and we don't know what percentage of that missing 10 percent has good reasons for not joining. The bigger problem is not the people who automatic enrollment fails to pick up; the bigger problem is that a large proportion of the workforce does not have a plan available. We need to create some sort of national individual retirement account (IRA) or something like the auto IRA or President Barack Obama's recently proposed "*my*RA." Various versions of this idea have been floating around for a long time. Under the *my*RA approach, employers would be encouraged to enroll their employees in this plan automatically, but the employers would not be responsible for administering or contributing to the accounts. I think the latest proposal is that an employee would invest in something like an inflation-protected Treasury instrument until the account balance gets big enough that it makes sense to shift the investment into something else. We can argue about the best design for a plan like this, but creating a viable retirement savings option for the large number of people who have no retirement savings plan seems to me our biggest challenge.

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Michael Dieschbourg: There's some work on hedonomics being done by Christopher K. Hsee, professor of behavioral science and marketing at the University of Chicago Booth School of Business. This research focuses on maximizing happiness with limited wealth. People need a better idea of what they need to really enjoy retirement, so I was wondering if some work should be done not only on nudging workers to save for retirement but also on nudging them to determine the level of wealth they need to retire happily versus just trying to reach a financial goal. In other words, can people optimize their level of income in order to maximize happiness with a limited wealth goal?

Richard Thaler: Certainly, the next big issue the retirement industry needs to confront is the decumulation phase. If we get the retirement saving plans up to a B+, the decumulation phase gets a gentleman's C, and that's being generous. Typically, employers hand workers a check and say goodbye and good luck. This is unfortunate because decumulation is a much bigger problem than accumulation. Just trying to solve the problem conceptually is difficult. First of all, you'd have to update your plans every time you live another year and get another annual physical, and the annuities market is far from efficient. Then there are good products and bad products, and it's hard for individuals to sort them out.

> *"If we use prediction as the measure of a model, traditional finance makes precisely wrong predictions. Behavioral finance is trying to improve on that record, which is not hard."*

So what would you really want? You'd want some kind of annuity option in your retirement plan. The way the system works now is that employers act as a fiduciary who designs a plan and picks a suitable set of investment vehicles. That's the easy part. Retirees could do pretty well by simply going to a low-fee mutual fund company and picking a target date fund on their own. But no one is acting as a fiduciary on the decumulation phase, and finding a suitable decumulation strategy in the marketplace is much harder. I know of at least one corporate pension plan that has an annuity option, but the U.S. Department of Labor has been unable to figure out a sensible way of giving plan sponsors a safe harbor for putting an annuity option into the plan. They wrote one, but everybody realizes it's inadequate. The plan sponsor basically would have to express confidence that the provider will be able to make the payments over the foreseeable time horizon. Well, that could be forty years, so who could safely say that about any insurance company? Once upon a time, we might have thought a person could just say, the insurance company has a triple-A rating, so that'll be a safe harbor. But rating agencies have deservedly lost our respect, so right now we're stymied. I've talked to people in the Department of Labor who generally understand the problem and would like to do something about it but haven't been able to figure out what they could do. The corporate pension plan I mentioned, United Technologies, has an innovative and thoughtfully designed plan, but it's complicated. It's safe to say its employees don't understand it; it's probably understood only by the people who designed it. I think there's a lot of work to do on this front, but I'm not sure what the answer is.

Ludwig Chincarini: I think many people resist behavioral finance because it involves many challenges—for example, limited models of prediction. Even when there's overvaluation, few models predict or tell you when an asset is overvalued. Many corporate clients might want to do what seems like a common-sense strategy that many people know about, but because there is no specific prediction from these models, they would rather stick with rational models. What is your response to this, and how does behavioral finance move to something such as a capital asset pricing model (CAPM) or some other model that is capable of predictions?

Richard Thaler: I'm happy to put behavioral finance against a CAPM in terms of predictions. The CAPM says the only thing that matters is beta. My golf buddy, Gene Fama,[5] has shown that the only thing that doesn't matter is beta. If we use prediction as the measure of a model, traditional finance makes precisely wrong predictions. Behavioral finance is trying to improve on that record, which is not hard. Thirty years ago, Werner De Bondt[6] and I wrote a paper in which we predicted an anomaly, and I don't know whether anybody else in finance has done that before or since. The process of trying to figure out Werner's programming error, which didn't exist, led Fama and French[7] to acknowledge that there's a value premium. This realization eventually led to the three-factor model and now there's a five-factor model, and in the five-factor model there's absolutely no pretense that these factors represent risk. So I think everybody's doing behavioral finance now—except maybe Fama's son-in-law, John Cochrane.[8]

Ronald Kahn: As we've discussed, there's no question that behavioral finance has had a great impact on defined contribution plans, but to Ludwig's point, I think the idea of value goes back before behavioral finance. I also think behavioral finance has done a great job of providing further explanations for things that asset managers already knew. I don't believe any practitioner would say it wasn't until Fama and French that we understood that size and value were important. I'm wondering to what extent behavioral finance really has identified new investment ideas as opposed to explaining ideas we already knew.

Richard Thaler: Let me answer that in two ways. The first is to note that I think we've now come full circle. The early efficient market hypothesis said nothing matters, and everything you read in Graham and Dodd[9] was wrong and useless. Then the first round of revisions said, well, actually value might be worthwhile, but it's risk. The latest models include things like investment and profitability. So I think we've gone back, and we should just have people read Graham and Dodd and stop. Has behavioral finance led to insights into how to invest? As some of you know, I'm a principal in a money management firm, Fuller and Thaler Asset Management, in San Mateo, California. We use behavioral finance to invest, and it seems to work for us, so I think it's possible to do that. The basic idea is you start with a bias, a judgmental bias that you think leads to mispricing, and then you create a disciplined way of forming portfolios informed by that bias and you make sure your portfolio managers are not subject to the same biases as everybody else by limiting the kinds of things you ask them to do. I agree with you that in the academic literature the distinction between behavioral

finance and the rest of empirical finance is pretty blurred, and that's all for the good. I wrote an article quite a long time ago called "The End of Behavioral Finance," in which I predicted that at some point behavioral finance would no longer exist because all of finance would be as behavioral as it should be. I wrote something similar about economics more generally, and I think we're getting there. So at some point, I no longer will be able to call myself a troublemaker.

Edward Baker: I think behavioral finance also has a potential application in the investment consulting business. In your book *Nudge*, you talk about choice architecture as a means of motivating individuals to make better choices. It seems to me that consultants could design a way of interacting with clients that nudges them to make good investment decisions so that consultants would become choice architects rather than providers of advice. What are your thoughts about this?

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Richard Thaler: I think any financial advisor is a choice architect, even the bad ones. The bad ones are just bad choice architects. Unless the client just says here's my money, do what you want—which I don't think is a very common occurrence—being a financial advisor is one part portfolio manager and one part clinical psychologist. I'm not sure which part is more important, but the choice architecture aspect resides in framing decisions for clients in a way that enables them to understand the tradeoffs and make sensible decisions. This is related to the point that was mentioned earlier. You want to design a portfolio that will make the members of a household as happy as possible, but the problem is that people aren't very good at anticipating how they're going to react to various market outcomes. We've seen that 401(k) investors have been remarkably good at buying high and selling low. For example, people sold off equity funds and missed the enormous bull market that started in 2009. I don't think that money started flowing back into equities until 2013. So people are going to do the wrong thing, and in bull markets they're going to ask their financial advisors, "Why don't you have me invested all in tech stocks?" Then when the market goes down, they're going to ask, "How come I'm losing so much money?" The real goal of a financial advisor is to help each client understand what's possible and what isn't. And that has to be accomplished at the same time the financial advisor convinces clients that the advisor is really smart and can help them achieve their goals.

Edward Baker: Can choice architecture be made into a systematic science?

Richard Thaler: Yes, I think it can. Although Cass and I invented this term, people have been doing choice architecture forever. Coining the term sort of made us experts at this approach, but it's not like we had never done it. Since the book came out, I've gotten involved in numerous attempts to apply these ideas in various domains for various governments, but I wouldn't say we now have a scientific system or a recipe. Each problem is unique. We can use a certain set of tools, but a financial advisor is a little like a chef. There's no formula to tell you how to create a great dish. You can learn what techniques and flavors work, but it's not like you can read a book and become a three-star Michelin chef. We have a certain amount of knowledge, but there's no master recipe book yet.

Mark Anson: When I went to business school some twenty years ago, there was a standard way to gain a better understanding of the financial markets: We got a graduate degree at a well-known business school. Nowadays, with the growing acceptance of behavioral finance, would it be better to get a graduate degree in psychology rather than finance or economics in order to better understand the financial markets?

Richard Thaler: No, because most psychologists don't know anything about financial markets. Back when we were first considering behavioral finance, a famous social psychologist, Stanley Schachter,[10] actually wrote a couple of behavioral finance papers, submitted them to the journals, got yelled at, and decided to quit. I think he's the last psychologist who made a serious attempt to do that. There are huge barriers to entering the study of financial markets, so if you want to learn about behavioral finance, the right place to do that is a business school. But you're going to have to listen with a critical ear in many of the courses you take because most corporate finance courses start with the CAPM. I have no idea why, but we're teaching things we know are false. The idea that companies should do capital budgeting based on beta seems to me a pretty ridiculous idea. If I were teaching a finance class, I would certainly teach the CAPM. In my worldview, the CAPM would be true in a world in which everyone was rational. So I would teach it as a sort of idealized model, just as I would teach the efficient market hypothesis. In some other universe, the efficient market hypothesis and the CAPM both would be true, but it would be a universe without humans.

Matthew Morey: I teach finance, and I wonder why professors are generally so reluctant to teach behavioral finance in standard introductory finance courses. Almost all of the introductory finance books are still built on rational models and include very little about behavioral finance. Why is that, in your view?

Richard Thaler: Inertia—one of the most powerful of behavioral factors.

Edward Baker: Is more emphasis on applications what's missing for behavioral finance fans? Choice architecture is an obvious application. If that idea were developed more completely, perhaps schools would find behavioral finance more appealing.

Richard Thaler: I think that's true. Some interesting stuff is going on in corporate behavioral finance, but the traditional model has a forty-year head start, so there's not quite a fully coherent body of literature. In fact, that's probably never going to come about because if you want one simple, parsimonious economic model, you're not going to do better than the rational model. It just doesn't predict behavior very well. So what we have now is the rational model as the starting place and then a long list of departures. People keep asking me when we're going to come up with the behavioral CAPM. I remember being asked that question in 1987, so people have been asking this for almost thirty years. There were a few attempts to write such models in the 1990s, but I would say they were not completely satisfactory. Psychology does not have a theory of psychology; what it has is a long list of phenomena and theories that go with each entry. Maybe that's the way economics is going. I don't know. We're still new at this.

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Meir Statman: I'd like us to address the notion of market efficiency. We have two notions of market efficiency, one is that price is always equal to intrinsic value and the other is that you cannot beat the market. Of course, if the price is right, you cannot beat the market, but if you cannot beat the market, that doesn't necessarily mean the price is right. How do you see this debate playing out?

Richard Thaler: I agree with you, and I always stress that the efficient market hypothesis contains those two components. The bulk of the literature has been devoted to the idea that you can't beat the market—I call that the no-free-lunch part of the hypothesis—and I would say that is the truer part. I say this because, as Mike Jensen[11] first pointed out in his thesis, most active managers fail to beat the index. That's still true. Beating the market is hard, and being in this business has not altered my view of that. An asset manager who beats the market two out of three years is a very good manager. However, I think the idea that the price is right is the more important part of the hypothesis. I think it's the more important part because the interesting, intellectual question is how good a job do financial markets do in allocating resources? If prices can get way off, they're not doing a great job, which is not to say somebody has a better way. But look at the technology bubble of the late 1990s: The NASDAQ went to 5,000 and then fell by two thirds, and fourteen years later we're still not back to 5,000 even in nominal terms. Fischer Black[12] once wrote that he thought prices were right within a factor of two. Fischer died in 1995, but I think if he had lived five more years he would have made that a factor of three.

Then we went through the housing bubble. Consider just those two bubbles, technology and housing, and the resources that went into them. During the technology bubble, MBA students left school to go to California and become billionaires, and most of them came back a couple of years later to finish their degrees. A lot of resources were misdirected. The thing to keep in mind about the technology bubble is that the Internet did not turn out to be a disappointment—just the opposite. In 2000, no one could possibly have imagined that we would all be carrying powerful computers in our pockets. The Internet has exceeded our wildest expectations, and still the prices were way off. In his famous mea culpa speech, Alan Greenspan admitted he was shocked that people weren't paying enough attention to counterparty risk and, more basically, he had not believed that prices could diverge very much from intrinsic value.[13] That's why he wasn't worried about the technology bubble or the housing bubble. He believed policy makers, central bankers, and finance ministers did not need to worry about that.

The first step is acknowledging the possibility that the price is not always right. I would favor a policy—say, with respect to real estate—that when local markets look frothy, using some sensible measure like price-to-rental ratios, it would make sense for Fannie and Freddie, if they still exist, or some equivalent agency to increase lending requirements. If that had happened during the first part of the 2000s, it certainly would have tamped down the bubble in places like Arizona, Las Vegas, and South Florida and saved people a lot of grief. It might even have prevented the financial crisis.

Edward Baker: Part of the problem is that this idea of fair value is a bit of a chimera and perhaps is subject to the biases and other behavioral elements you described.

Richard Thaler: It's true that we don't know what intrinsic value is. All I'm arguing is that we acknowledge the possibility that prices can diverge from intrinsic value. When I spoke to groups of practitioners in the late 1990s, I would talk about a portfolio of five Internet stocks and ask, "If I give you $1,000 of that portfolio, what would you say—using whatever definition you think is appropriate—is the intrinsic value?" The median response was fifty cents on the dollar. My second question was, "What is your prediction as to the return on that portfolio over the next six months?" Median response: up 20 percent. That, to me, sounds like a bubble.

Margaret Towle: Is there anything we haven't discussed that you would like to add?

Richard Thaler: Just let me reiterate that I'm not in favor of stopping teaching things like the CAPM or the efficient market hypothesis. Without these benchmarks, including the Modigliani-Miller theorem[14] and other basic models, we can't really understand how financial markets are supposed to work. The only danger in teaching these models is if students believe that they are good descriptions of the world we live in.

Endnotes

1. Daniel Kahneman is a senior scholar and professor of psychology and public affairs emeritus at the Woodrow Wilson School of Public and International Affairs at Princeton University and the author of the popular book *Thinking, Fast and Slow*. He received the Nobel Memorial Prize in Economic Sciences in 2002 for his collaborative work with Amos Tversky.
2. Amos Tversky (1937–1996) was a cognitive and mathematical psychologist whose long-term collaborations with Daniel Kahneman focused on how people manage risk and uncertainty. Together, the two men developed prospect theory. Tversky died in 1996. When Kahneman was awarded the Nobel Memorial Prize in Economic Sciences after Tversky's death, he said he considered it a joint prize.
3. Colin F. Camerer (1959–) is the Robert Kirby Professor of Behavioral Finance and Economics at the California Institute of Technology, where he teaches cognitive psychology and economics.
4. Shlomo Benartzi is professor and co-chair of the Behavioral Decision-Making Group at the UCLA Anderson School of Management. His special interests are household finance and the behavior of retirement savings plan participants. In collaboration with Richard Thaler, he developed the concept of Save More Tomorrow (SMarT).
5. Eugene F. Fama is the Robert R. McCormick Distinguished Service Professor of Finance at the University of Chicago Booth School of Business. He received the 2013 Nobel Memorial Prize in Economic Sciences, along with Lars Peter Hansen of the University of Chicago and Robert J. Shiller of Yale University, for their work on explaining asset prices and how financial markets function.
6. Werner F. M. De Bondt is the Driehaus Professor of Behavioral Finance and director of the Richard H. Driehaus Center for Behavioral Finance at DePaul University. Considered one of the founders of behavioral finance, he studies the psychology of financial decision making.
7. Eugene F. Fama and Kenneth R. French have written a series of articles casting doubt on the validity of the capital asset pricing model. The Fama–French three-factor model describes two factors above and beyond a stock's market beta that can explain differences in stock returns: market capitalization and value. Fama and French also offer evidence that their three-factor model explains various patterns of average returns, often labeled "anomalies" in past work.
8. John H. Cochrane (1957–) is the AQR Capital Management Distinguished Service Professor of Finance at the University of Chicago Booth School of Business.
9. In their 1934 book *Security Analysis*, Columbia Business School professors David Dodd and Benjamin Graham came up with a method for valuing stocks, laying the intellectual foundation for what eventually would be called value investing.
10. Stanley Schachter (1922–1997), who before his death was the Robert Johnston Niven Professor of Social Psychology at Columbia University, is perhaps best known for developing the two-factor theory of emotion in collaboration with Jerome E. Singer (1934–2010).
11. Michael Cole Jensen (1939–) is the Jesse Isidor Straus Professor of Business Administration, Emeritus, at Harvard Business School. He is known for developing a method for assessing fund manager performance, the so-called Jensen's alpha, which measures the performance of an investment in relation to a benchmark.
12. Fischer Black (1938–1995) was a U.S. economist associated with the University of Chicago, the MIT Sloan School of Management, and Goldman Sachs. In 1973, Black and Myron Scholes published their option-pricing formula, which became known as the Black–Scholes model. This model, which represented a major contribution to the efficiency of the options and stock markets, remains a widely used financial tool.
13. Alan Greenspan's October 2013 testimony before a U.S. congressional committee has been called his "mea culpa" speech.
14. The Modigliani-Miller theorem states that a firm's market value is determined by its earning power and the risk of its underlying assets and is independent of the way it finances its investments or distributes dividends.

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