

James Poterba

Over the past generation, retirement finance in the United States has undergone a revolution. While defined benefit plans (pensions that pay retirees a pre-defined amount) were once commonplace, they are now rare for private-sector workers — having been displaced by defined contribution plans, such as those based on 401(k) accounts and Individual Retirement Accounts (IRAs). Defined contribution plans do not require the long job tenure that is typically needed to earn substantial benefits in defined benefit plans, but they do require workers to make their own investment decisions and to live with the consequences, for better or worse. These changes in the private pension landscape have taken place at the same time that policymakers have been discussing the funding and even the structure of the Social Security system.

James Poterba of the Massachusetts Institute of Technology (MIT) has been a leading researcher of retirement finance since entering the field in the 1990s. His findings have led to a reconsideration of the simplest versions of the “life cycle” model of savings and consumption, in which individuals seek to smooth their consumption over their lifetimes, building assets during high-earning years and drawing them down steadily during retirement. With his frequent collaborators Steven Venti of Dartmouth and David Wise of Harvard, he has found that some households arrive at retirement with few assets, while others continue to maintain high levels of assets throughout much of retirement. Earlier in his career, as a junior member of the MIT economics faculty, he focused his research primarily on tax policy. His transition from taxation research to a focus on retirement issues began with an examination of tax incentives for retirement saving in 401(k) plans and IRAs.

In addition to his work at MIT, since 2008, Poterba has been president and chief executive officer of the National Bureau of Economic Research. He is also a trustee of the College Retirement Equity Fund (CREF) and an independent director of the TIAA-CREF mutual funds. David A. Price interviewed him in Washington, D.C., in June 2015.



EF: How did you become interested in economics?

Poterba: My path to economics began with high school debate. When I was a freshman in high school, the national debate topic was “Resolved: that the federal government should finance primary and secondary education in the United States.” My high school offered a ninth-grade economics course, and my teacher, Paul Larson, encouraged me to join the debate team. When I did, I needed to learn how to discuss issues like whether the value-added tax was regressive and what disincentives for labor supply were created by the income tax. My sophomore year, the high school debate topic was “Resolved: that the federal government should guarantee a minimum annual income to all households.” This topic also involved taxes and transfers and a lot of economic analysis. My senior year in high school, the topic was “Resolved: that an international organization should allocate scarce world resources.” Economics again! I really enjoyed high school debate, in large part because I enjoyed learning about the economic issues, and my debate experience was central to my early interest in economics.

In high school, I also liked science a lot and I thought I might be a chemist or a chemical engineer — a field that relies a lot on equilibrium, as economics does. But when I got to college, I realized the power of economic tools. I had a very engaging freshman economics instructor, Jane Katz, who later worked for many years at the New York Fed. And as a college sophomore, I was in just in the right spot at the right time when I got to know Larry Summers, who was then a graduate student at Harvard. Larry was working with Marty Feldstein on several projects. I worked as a research assistant for Larry Summers and Kim Clark. They were studying labor market dynamics. Later, I worked

with Marty Feldstein on issues involving unemployment insurance and taxation policy. Marty and Larry launched me into a research career in economics.

After college, I was fortunate to win a Marshall Scholarship for graduate study in England. When I was there, graduate training in Oxford relied less on coursework than a top U.S. Ph.D. program would have, but it also threw you more into the deep end of the pool in terms of doing research early on. So I knew less economics than a comparably aged U.S. graduate student when I finished my doctorate, but I had a little more experience at doing research because I'd started as an undergrad and I'd been able to continue that work right through my graduate experience.

I have been lucky to live under a charmed star and to have wonderful mentors, terrific colleagues and students, and great opportunities throughout my career.

EF: Much of your early work looked at the economics of taxation. Are the major challenges to tax policy different now than they were then?

Poterba: One difference is that tax policy discussions and research on the economics of tax policy in the late 1970s and early 1980s were set in an environment with marginal tax rates that were significantly higher than those today. The United States had a top tax rate on capital income of 70 percent until 1981. The top marginal tax rate on earned income in the United States at the federal level was 50 percent until 1986. Today, the top statutory rate is 39.6 percent, although with some add-on taxes, the actual rate can be in the low 40s. We have been through periods when the top rate was as low as 28 percent. There was a lot more concern about the distortions associated with the capital income tax and with taxation in general.

At the same time, the opportunities for studying how behavior was affected by the tax system when I started in this field were dramatically different than they are today. We relied primarily on cross-sectional household surveys. It's hard to study how taxation affects behavior when the variation in the tax system is coming in differences in household incomes that place different taxpayers in different tax brackets, because income variation is related to so many other characteristics. Today, by comparison, the field of public finance has moved forward to use large administrative databases from many countries, often including tax returns. It is possible to do a much more refined kind of empirical analysis than when I started.

The other thing that's happened is that we've devoted more attention to spending programs. Public finance in the late 1970s and early 1980s was heavily focused on taxation, at least in the empirical work. But today, health economics is an enormous subfield of public economics, and there is broad interest in Social Security and many other programs. I think this reflects the evolving reality of

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how important government programs in the United States and other developed countries are in delivering health care, income support, education, and other vital functions.

With regard to entitlement programs, one exciting line of research has compared countries and tried to use as a data point not an individual but in some cases a nation to look at how the labor force participation rate, for example, of men in their early 60s, is related to the generosity of the social security or the disability insurance system. And the combination of access to administrative data plus interesting international comparisons has generated remarkably interesting new insight into the operation of a number of programs the government has managed.

EF: One public finance issue is the home mortgage interest deduction. Many economists oppose the deduction based on equity and efficiency concerns. What do you think should be done about the deduction, if anything?

Poterba: I began studying various aspects of the tax code and the housing market in my undergraduate thesis research in 1979-1980. This is an issue that's near and dear to my heart. Let me note several things about the way we currently tax owner-occupied housing in the United States.

First, because mortgage interest is deductible only for households that are itemizers on their tax returns and then is deductible at the household's marginal income tax rate, this results in a larger subsidy to households at a higher income and higher marginal tax rate than for those at lower levels.

Second, the real place where the tax code provides a subsidy for owner-occupied housing is not by allowing mortgage deductibility, because if you or I were to borrow to buy other assets — for instance, if we bought a portfolio of stocks and we borrowed to do that — we'd be able to deduct the interest on that asset purchase, too. If we bought a rental property, we could deduct the interest we paid on the debt we incurred in that context. What we don't get taxed on under the current income tax system is the income flow that we effectively earn from our owner-occupied house, what some people would call the imputed income or the imputed rent on the house. The simple comparison is that if you buy an apartment building and rent it out, and you buy a home and you live in it, the income from the apartment building would be taxable income, but the "income" from living in your home — the rent you pay to yourself — is never taxed. This is the core tax distortion in the housing market: the tax-free rental flow from being your own landlord.

The natural way to fix this would be to compute a measure of imputed income on your home and include that in the income tax base. As a matter of practical tax policy, creating an income flow that taxpayers don't see and saying they're going to have to report that on their tax return

is probably a nonstarter. A number of European countries tried in the past to do something in this direction, typically in a very simple way, saying something like 3 percent of the value of the home is included in your income for the year. Almost all of those countries have moved away from this. It therefore seems that the tax reform that one might like on conceptual grounds is probably not politically realistic.

Given that situation, other policy reforms that might move in the same direction probably deserve some attention. Property tax rates vary from place to place in the United States, but they are typically proportional to the value of the property. They are currently deductible from the income tax base. Disallowing property tax deductions would be one way of trying to move gently toward a tax system that was closer to one that taxed imputed rent. One could think about other potential reforms along similar lines, but eliminating the mortgage interest deduction turns out not to be the most natural fix here because it would create distortions between borrowing to buy a home and borrowing to buy other assets.

EF: If we tried to address the issue of imputed rent in the way that you suggest, what effect would we see on house prices? Or if we tried some of the reforms that have been discussed concerning the mortgage interest deduction itself?

Poterba: Todd Sinai at the Wharton School and I have looked at the consequences of changing some of the tax provisions, and we typically find that if the market was fully forward-looking, and recognized the changes in housing investment that would be associated with tax changes, current house prices would decline by only a few percentage points. There would be variation across types of houses, related to the typical tax circumstances of their buyers. The tax benefits, while important, are not a large fraction of the total cost of an owner-occupied home. Of course, that doesn't say that you'd want to pile on and make a tax reform of this kind when house prices are not performing very well. Today, house prices have recovered somewhat from the financial crisis of 2008-2009, but a better time to adopt a reform like this would have been 2005, after a period of strong price appreciation.

EF: More recently, one of your areas of research has been retirement finance and the investment decisions of workers thinking about their retirement. In recent decades,

James Poterba

► Present Positions

Mitsui Professor of Economics, Massachusetts Institute of Technology
President and Chief Executive Officer, National Bureau of Economic Research

► Education

D.Phil. (1983) and M.Phil. (1982), University of Oxford
A.B. (1980), Harvard College

► Selected Publications

"Retirement Security in an Aging Population," *American Economic Review*, 2014; "The Composition and Drawdown of Wealth in Retirement," *Journal of Economic Perspectives*, 2011 (with Steven Venti and David Wise); "Tax Expenditures for Owner-Occupied Housing," *American Economic Review*, 2008 (with Todd Sinai); numerous other articles in such journals as the *National Tax Journal* and the *Journal of Public Economics*; and numerous book chapters.

we've seen a tremendous shift in the private sector from defined benefit retirement programs to defined contribution programs. Was this mainly a response by firms to the tightening of the regulatory environment for defined benefit plans, to changing demand from workers, or to something else?

Poterba: I think it's a bit of everything. A number of factors came together to create an environment in which firms were more comfortable offering defined contribution plans than defined benefit plans. One factor was that when firms began offering defined benefit plans, in World War II and the years following it, the U.S. economy and its population were growing rapidly. The size of the benefit recipient population from these plans relative to the workforce was small. It was also a time when life

expectancy for people who were aged 65 was several years less than it is today. Over time, the financial executives at firms came to a greater recognition of the true cost of defined benefit plans.

I also think the fiduciary responsibilities and the financial burdens that were placed on firms under the Employee Retirement Income Security Act of 1974, or ERISA, have discouraged firms from continuing in the defined benefit sector. ERISA corrected a set of imbalances by requiring firms to take more responsibility for the retirement plans they were offering their workers and to fund those plans so that these were not empty promises. ERISA was enacted in the aftermath of some high-profile bankruptcies of major U.S. firms and the discovery that their defined benefit plans were not well-funded, leaving retirees with virtually no pension income.

But ERISA and the growing recognition of the costs of defined benefit plans are probably not the full story. The U.S. labor market has become more dynamic over time, or at least workers think it has, and that has led to fewer workers being well-suited to defined benefit plans. These plans worked very well for workers who had a long career at a single firm. Today, workers may overestimate the degree of dynamism in the labor market. But if they believe it is dynamic, they may place great value on a portable retirement structure that enables them to move from firm to firm and to take their retirement assets with them.

Most workers who are at large firms, firms that have 500 employees or more, have access to defined contribution plans. Unfortunately, we still don't have great coverage at smaller firms, below, say, 50 employees. For workers who will spend a long career at a small firm, the absence of these

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employer-based plans can make it harder to save for retirement. A key policy priority is pushing the coverage of defined contribution plans further down the firm size distribution. That's hard, because smaller firms are less likely to have the infrastructure in place in their HR departments or to have the spare resources to be able to learn how to establish a defined contribution plan and how to administer it. They are probably also more reluctant to take on the fiduciary burdens and responsibilities that come with offering these plans.

Another concern, within the defined contribution system, is the significant amount of leakage. Money that was originally contributed for retirement may be pulled out before the worker reaches retirement age.

EF: What is causing that?

Poterba: Say you've worked for 10 years at a firm that offers a 401(k) plan and you've been contributing all the way along. You decide to leave that firm. In some cases, the firm you are leaving may encourage you to take the money out of their retirement plan because they may not want to have you around as a legacy participant in their plan. They may not want the fiduciary responsibility of having you in the plan. In this case, the former employer may be encouraging the departing worker to withdraw funds from the retirement space. Sometimes, the worker may choose to move the funds from the prior 401(k) plan to a retirement plan at their new employer, or to an IRA. Those moves keep the funds in the retirement system. But sometimes, the worker just spends the money. When an individual leaves a job, they may experience a spell of unemployment, or they may have health issues. There may be very good reasons for tapping into the 401(k) accumulation. Using the 401(k) system as a source of emergency cash, sort of as the ATM for these crises, diminishes what gets accumulated for retirement.

EF: Did you venture into this area initially simply because you thought it was an interesting set of questions, or was there anything in particular that pushed you in this direction?

Poterba: My interest in retirement saving began with my interest in tax policy. A critical feature of the savings landscape in the United States is the role of tax policy in encouraging various kinds of retirement arrangements. In my research on retirement issues, tax-related questions have continued to attract my interest. I have also become interested, however, in the question of how households formulate and carry out their financial plans, particularly in retirement.

For example, some work that Venti, Wise, and I have done looks at the distribution of asset holdings for individuals who are very close to death. The University of Michigan

Health and Retirement Study, which is a comprehensive database on older individuals in the United States, begins tracking survey respondents in their mid-50s. It follows them until they die, so the last survey is typically filed about a year before the

individual's death. Nearly half of the respondents in the survey turn out to have very low levels of financial assets, under \$20,000, as they get close to death. For any economist who's been steeped in the life cycle model, the notion that you would reach such a low level of asset holdings, even at old ages and when health is poor, is surprising, particularly given the risk of out-of-pocket expenses for medical care or nursing homes. This empirical pattern is a bit of a challenge to the life cycle model of my late colleague Franco Modigliani.

I have been quite interested in how individuals arrive at such low levels of financial assets. Many of those who have very little financial wealth as they approach death also reached retirement age with very little wealth. Nearly half of American retirees rely overwhelmingly on Social Security as their source of income. One often hears references to a three-legged stool of retirement support, which involves Social Security, private saving, and employer-based saving in a retirement plan. The reality is that nearly half of the population is relying on a one-legged stool, with Social Security as the sole leg. Only in the top half of the retiree wealth distribution does one start to see substantial amounts of support from private pension plans, and only in the top quarter is there substantial support from private saving outside retirement accounts.

EF: Knowing what you've learned over the years, what advice would you give to a 30-year-old worker today about retirement?

Poterba: Save early and save a lot.

At MIT, I have a lot of engineering colleagues who are accustomed to answering questions with precise and definitive answers. If I ask one of them how big a solar array I should put on my roof to generate enough energy for my home, they are able to do a calculation that gives a pretty accurate answer to that question. They can design an array so that I'll have energy 95 percent of the time. If they ask me in return how much they should be saving for retirement, I don't think I can give them an answer with an analogous level of precision.

There is a lot of heterogeneity across individuals in their relative tastes for retirement versus pre-retirement consumption. Some people may regard the availability of more time in retirement as an opportunity to ramp up their spending, to travel, or to enjoy a second home. Others, particularly lower-income retirees, may devote more time to shopping sales for groceries and for other products they buy. They may spend more time cooking at home relative

to consuming food away from home. They may scale back on clothing purchases because they are not required to buy clothes for work. The notion that spending time can save money is very evident in the behavior of some retirees.

One of the notable examples of this is that early research on the well-being of retirees pointed to the fact that expenditures on food declined for a number of retirees lower in the income distribution. That was often viewed as evidence that these individuals must be worse off when they retired than they were when they were working — they could not even sustain their food consumption. Yet more refined analysis of the food expenditure data found that caloric intake did not decline very much even for those for whom food expenditure declined. What happened? They shifted from buying takeaway meals at the grocery store or stopping at a restaurant to purchasing more food to prepare at home. Spending declined, but the ultimate objective — nutritious meals — was not affected nearly as much as the spending decline suggested. This is microeconomics in action, right? When money becomes scarce relative to time, individuals alter the way they choose to produce things.

Many individuals also have some reason for preserving financial assets until late in life. Textbook life cycle theory would lead you to expect that peak assets are basically observed at the moment when someone retires. After that, leaving aside bequest considerations and the possible need for late-life precautionary saving, retirees should begin to draw down assets as they move toward the end of life. But in fact, at least in the early years of retirement, the late 60s and into the 70s, many households that have financial assets experience relatively stable assets over that time. Some even appear to save more during this period. What's happening here? Well, either they are planning to leave these assets to the next generation or to make charitable gifts late in life, or they are saving for precautionary reasons like health care costs.

The times when financial assets are drawn down significantly are often when one spouse in a married couple dies, which may be associated with medical and other costs, and at the onset of a major medical episode. Health care shocks may lead to costs for caregivers who may not be covered by Medicare and other insurance. Retirement is not a homogeneous period from the standpoint of financial behavior: Behavior for the “young elderly” can be quite different from the behavior of those who are in their 80s and 90s.

EF: You've been called the de facto historian of MIT's economics department. What did MIT do differently in economics that helped it become pre-eminent?

Poterba: Let me first explain why I have been interested for a long time in the history of MIT economics. I arrived at MIT in 1982, just before the retirement of the postwar faculty who built the modern department. As a brand new assistant professor, I attended retirement parties for Evsey Domar, Cary Brown, Charlie Kindleberger, and Paul

Samuelson, and then a bit later for Morris Adelman and Bob Solow. The MIT economics department was a close-knit group of faculty. Attending these retirement parties, one couldn't help but be swept up in the incredible sense of dedication to economics, and dedication to each other, that this group had in building the department. That got me very interested in the history of the department.

If you compare a rough ranking of economics departments in 1940 or 1950 with a ranking in 2000, there is a lot of stability, but the one department that jumps into the ranks is MIT. MIT has actually had an economics department for a very long time. The first president of the American Economic Association, Francis Amasa Walker, was the president of MIT. He was an economist who was recruited from Yale to lead MIT, and he introduced a required undergraduate economics course — maybe the first such course at an American college or university.

The MIT economics department was a service-oriented undergraduate department until 1940 when it introduced a master's program. In the mid-1940s, it started a Ph.D. program. Paul Samuelson's arrival at MIT in 1940 coincided with a ramping up of the department's interest in graduate training. There were some important hires in the early postwar years that made it possible to build a core faculty that was involved in graduate training.

Several things helped MIT. First, because it was a rapidly growing department, it was possible to hire many leading young economists and bring them to MIT. This created a great atmosphere and a critical mass of active, research-oriented faculty. Some of the key figures had an enormous influence on the development of the department. I am sure that it wasn't unique to MIT, but the faculty consisted of a group of good friends who were all very active in research, all committed to building a Ph.D. program, and all engaged in building the department.

Second, MIT's economics department always had a good balance between teaching and research. The graduate program was well-integrated with research activity.

Finally, in the 1940s into the 1950s, MIT probably benefited from anti-Semitism that was still prevalent in many other universities. MIT's department was prepared to hire leading economists who happened to be Jewish, and it stole a march on a number of other departments as a result.

EF: You taught introductory macroeconomics at MIT last spring for the first time. What was that like?

Poterba: I loved it. When I first came to MIT, I taught undergraduate statistics, but that's not a course in which you can convey a lot of economics to the students. Then for many years, I had administrative assignments that crowded out undergraduate teaching. I recently decided that I was at a career stage when it might be fun to teach a large introductory course, and our department needed someone to cover the macro course, so I volunteered. I hope the students liked it as much as I did. I found it invigorating to try to distill the

core questions in macro and bring those questions to the students. There are just so many exciting topics in macro today. Why are global interest rates so low? What is happening in the eurozone? How do we think about long-term fiscal policy and sustainability in the United States? Why is growth in the U.S. economy slower than it has been? How does recent work on long-term inequality and the relationship between rates of return and growth rates connect to the changing distribution of resources in the United States? I hope I succeeded at least a bit in conveying some of my excitement about these questions.

EF: You've been president of the NBER since 2008. What do you see as the role of the NBER in economics?

Poterba: The NBER presidency is an extraordinary experience. It's a window on economic research and the economics profession that is very hard to get in any other way. The NBER is devoted to carrying out and to supporting economic research, to disseminating research, and to helping educate the academic, policy, and business communities, and to some degree the public, about economic activity and economic analysis. While the NBER is best known for the dating of the U.S. business cycle, there's an enormous amount of research activity that takes place in the 20 distinct research programs that focus on everything from corporate finance and asset pricing to labor economics, education, and development economics. The span is remarkable.

I look at each working paper that is submitted for distribution in the NBER working paper series. When the NBER was founded, one of the key charter provisions was that it would not make policy recommendations. One of the founders was the chief statistician at AT&T, one of the largest U.S. companies of the day. Another was a Marxist labor organizer. They had rather different views about many economic issues. They had interacted with each other on some commissions during the 1910s that had looked at policy questions such as should there be a minimum wage and should there be an hours limit. They realized that even though they might have different answers to those questions, there wasn't enough data on the distribution of working hours or wages to permit reasoned discussion. Together,

they supported the creation, in 1920, of the NBER to collect and disseminate information on the economy.

One reason the NBER is well-regarded is that it doesn't get involved in policy debates, although it certainly carries out research that is relevant for policy. I review working papers to make sure we stay true to the no-policy-recommendation rule. I learn a great deal of economics in the process. In some cases, I need to reach out to the researchers to ask them to drop a passage in their paper that makes a policy statement. Almost always, the researchers are very agreeable and understanding.

The most enjoyable part of the job is trying to launch and direct research projects on particular topics. There have been NBER projects recently on high-skilled immigration, on the macro consequences of the financial crisis, on sovereign debt markets and crises, and on energy infrastructure. These projects provide an opportunity for me to work with an array of researchers to develop research proposals and to seek funding for these initiatives. I also have the chance to shape where the research is headed and what questions will get attention. My NBER role provides a bit of leverage; it's a way of going beyond what I can do myself as a researcher and influencing what others will do as well.

EF: What is the future of public finance economics?

Poterba: I tell incoming graduate students that in the field of public economics, the questions we confront are always fresh because economies go through periods of evolving policy mix, but our underlying analytical tools are remarkably stable. When public finance economists talk about the optimal design of a tax system, it is worth remembering that Adam Smith offered four maxims for a good tax system. One of them is that the tax system should impose the smallest possible burden beyond the revenue that is collected from the taxpayer. It's a very simple statement that the optimal tax code should minimize deadweight burden, and it remains a guiding principle that animates research to this day. The underlying trade-offs in public economics, between equity and efficiency and between raising revenue and creating distortions, have been with us a long time, and they are likely to remain the bedrock of the field. **EF**