

## A Better Way to do Financial Planning

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Simplicity is dangerous when it comes to financial planning. Easy-to-use tools that project your retirement savings based on minimal inputs such as your income and savings rate amount to a “bait-and-switch,” according to Larry Kotlikoff, a Boston University professor of economics. To properly prepare for retirement, one should focus on maintaining a constant standard of living throughout their life – what economists call consumption smoothing.

Consider this retirement planning [web site](#). It takes your anticipated retirement age, monthly savings amount, and investment style (conservative, growth, aggressive, etc.) and determines the size of your nest egg at the time you retire. According to Kotlikoff, this approach leads clients to set unrealistically high retirement goals and pushes them into inappropriately risky investments. Disappointing or disastrous results ensue – but not for the product provider, which has earned its fees on the failed investments.

“Traditional financial planning software has no interest in consumption smoothing,” he said. “It’s all focused on product sales.”

Kotlikoff, who is also a columnist for Bloomberg, has built a company, Economic Security Planning, Inc., which offers financial planning software (ESPlanner) based on consumption smoothing, a far more complex methodology than traditional approaches, but Kotlikoff’s software produces what he considers much more realistic annual spending, saving, and insurance recommendations for clients.

Kotlikoff spoke with me a couple of weeks ago about his approach – and about his “purple” tax proposals, which I wrote about in a previous [article](#).

### Behind consumption smoothing

It’s not just economic theory, but common sense, that dictates that people should be focused on trying to smooth their standard of living, Kotlikoff said. “You don’t want to splurge today and starve tomorrow,” he said, “or vice versa.”

Indeed, over-saving is also a big problem for some households, Kotlikoff said. There’s no point in a miserly lifestyle, he said, when one’s earnings and assets can support a much more enjoyable standard of living.



Consumption smoothing requires you to insure as well as to save. Insurance is necessary to protect against periods when you have insufficient resources. When he spoke of insurance, Kotlikoff was not only referring to traditional products, such as life insurance, but also to an investment approach that limits one's potential downside losses.

Consumption smoothing can't necessarily be fully achieved. Young households with a large mortgage to pay, children to educate, and higher future earnings prospects will necessarily be in debt. Kotlikoff's software takes borrowing constraints into account. It provides the smoothest living standard for a household without putting it into debt.

To develop a reliable financial plan based on consumption smoothing, Kotlikoff said, the program needs to meticulously factor in taxes, Social Security benefits, and Medicare Part B premia along with the client's own economic variables, like 401(k) balances, current and projected labor earnings, ages of children, future pensions and annuities, and housing plans. Kotlikoff's software then determines a saving and spending plan that affords you and your family the smoothest possible living standard path. The program can also accommodate clients who prefer to have their living standard rise or fall through time. It lets planners specify the living standard pattern the client wants and the program attempts to achieve that, to the extent that the no-borrowing constraint permits.

You tell the program your "off-the-top" expenses on housing, college, weddings, etc. But you don't tell it what you'll be spending on a discretionary basis. Instead of having to target that spending yourself, which is Kotlikoff said is impossible, the program does the spending targeting for you. And it finds the proper spending targets not just in retirement, but over your entire life.

With Kotlikoff's approach, your allowable spending is the end result of the planning process, not the input.

The math behind consumption smoothing is complex. Kotlikoff has a patent on the key piece – dual dynamic programming – that allows his software to arrive at a solution in a couple of seconds based on multiple dynamic programs iterating with one another. Dynamic programming begins by looking at one's finances in their last year of life, and then works backwards to their current age, fine-tuning until the optimal spending and saving pattern is found.

"We've never had a household for which this technique has not worked," he said, "and we've done hundreds of thousands of calculations with the software."

This in contrast with conventional financial planning, he said, which all too frequently leaves clients with big gaps to bridge between their goals and the results they experience.

That said, Kotlikoff is supportive of the financial planning profession. "The fact that conventional planners were taught a method of planning designed by people who should



have known better is not their fault,” he said. “But they do have an obligation to think through what they are doing, because there is an alternative.” To make it easier for traditional planners to compare economics-based and conventional planning, Kotlikoff has set up ESPlanner to run in both modes.

### **How to invest**

Kotlikoff’s approach must still incorporate projected earnings on one’s retirement savings, and he explained that his software calculates this in either one of two ways.

One is traditional Monte Carlo simulations, in which case you must indicate whether you plan to invest and spend aggressively, conservatively or cautiously. As Kotlikoff explained, your living standard risk in the future depends not just on how you invest, but also on how you spend.

Kotlikoff doesn’t recommend a specific portfolio, but instead he will show you a picture of the probability that your standard of living will be at various levels – from opulent to acceptable to having to sell your vital organs to pay your debts.

The other approach that Kotlikoff uses is called “upside investing,” which he said is modeled on how one behaves at a casino. Most prudent people will take a fixed amount of money with them to gamble, leaving their wallet and credit cards at home. In the realm of investing, that is akin to setting a floor your living standard by investing a portion of your assets conservatively and spending only out of the safe assets. The remainder can be invested more aggressively, and Kotlikoff’s software will show you the projected range of outcomes on the upside and the resulting improvement to your standard of living once you convert these risky assets (your casino winnings) to safe assets.

Kotlikoff criticized the common practice in the financial planning industry of establishing “buckets” for investors, which are intended to support one’s spending needs over fixed intervals of time. He said that, for example, a client might be advised to put half their wealth in TIPS and the rest in equities. But that might cause someone to spend today assuming the stock bucket will do well over time. If the stocks don’t do well, then the client will be forced to a lower standard of living. Unlike his Upside Investing version of ESPlanner, bucketing *per se* does not provide a living standard floor for clients.

### **Putting consumption smoothing to work**

Kotlikoff said his software is used by approximately 8,000 households and 100 financial advisors. It’s inexpensive (less than \$1,000 for ESPlannerPRO, which is the only program licensed for professionals). There’s even a highly simplified, web-based basic version at [www.esplanner.com/basic](http://www.esplanner.com/basic), which can be run for free if you don’t log in; it will give you a quick feel for how the software works.



Most of the work that went into the software was for its computational engine, and Kotlikoff said it still lacks a slick user interface. He's used it for academic purposes, but he hasn't mounted a full-scale marketing effort or taken other steps toward fully commercializing the product. That's coming right away, he said.

Kotlikoff's company also offers a \$40 product called Maximize My Social Security, which will help a person or a couple determine, for example, when to begin their retirement benefits and which benefits to take – which, as our readers know, is an extremely complex set of decisions.

I have not used Kotlikoff's software, so I can't speak to its accuracy, flexibility or other features. But his analytical framework is very persuasive. Kotlikoff is an economist who is genuinely interested in helping the advisory industry, yet consumption smoothing seems to have thus far been largely ignored.

Kotlikoff says there is a tremendous advantage to planners in using his software. Since it's a "living standard machine," he said, "it can be used to find safe ways to raise clients' living standards." Many of these are documented in case studies on his web site. Considering its moderate cost, using Kotlikoff's approach is something planners should consider.

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