The Economic Implications of an Older World

By Paul D. Kaplan

People are living longer, but having fewer children. Michael Falk and Laurence Siegel debate the ramifications for global growth.

In late 2012, the CFA Institute's flagship publication, the *Financial Analysts Journal*, published a thought-provoking essay by the research director of the institute's research foundation, Laurence B. Siegel, titled "Fewer, Richer, Greener: The End of the Population Explosion and the Future for Investors" (November/December 2012). Siegel predicted that the world's population would level off and might even begin to decline within two generations (hence, "fewer"), that humanity as a whole would be wealthier ("richer"), and that these improvements in the human condition would provide the means to reverse the damage that industrialization has had on the physical environment and even improve it ("greener").

Siegel's optimistic predictions, however, are not without risks and challenges that must be faced if they are to pan out. While the size of the human population may be leveling off, its age composition is changing dramatically. We are becoming older, but not necessarily healthier. Michael Falk, CFA, a partner with the Focus Consulting Group and the chief investment strategist at Mauka Capital, has been studying global demographic trends and the implications for investors for many years, especially

Laurence Siegel

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for those nearing retirement. He has lectured on this topic at meetings of CFA societies throughout the world.

Siegel and Falk both spoke about their respective work on these topics at the Morningstar Investment Conference in Toronto last year. We thought that readers of this magazine would benefit from their wisdom, especially on the practical advice that they have for investors. We brought them together for a discussion on Dec. 23. Our conversation has been edited for clarity and length.

Paul Kaplan: Larry, for our readers, could you briefly summarize your article "Fewer, Richer, Greener: the End of the Population Explosion and the Future for Investors."

Laurence B. Siegel: My main point is that outside of tropical Africa and parts of the Middle East, the population explosion is over. In other words, the whole world has adopted first-world levels of population growth. This takes tremendous pressure off of the world's resources and environment and enables a lot of problems to be solved more easily, especially environmental problems that are hard to solve when the population is growing 2% to 3% a year.

I also expect that the economic growth that has taken place over the past couple of centuries is going to continue at about the same rate during the rest of this century. That growth rate has averaged 1.8% a year, real, per capita.

Kaplan: William Bernstein responded to your article with his own piece in the *Financial Analysts Journal*, titled "The Paradox of Wealth" (September/October 2013), about the implications of your long-term forecast. He's less optimistic about security returns.

Siegel: Bernstein makes a second-order point that's correct, but I make a first-order point that's also correct, which is that the economy is going to continue to grow, so returns should be roughly similar to those in the past.

His second-order point is that the returns could be lower in the future. When you go from poor to rich, you have a one-time reduction in risk that makes returns very, very high. This can happen only once, and I agree with Bernstein that it is unlikely to continue. An equity risk premium of something like 7% per year, which was the historical risk premium at the time Roger Ibbotson and Rex Sinquefield first did their work in the 1970s, is not going to happen outside of rapidly developing countries in the foreseeable future, because the rate of returns have already occurred. Even stocks in rapidly developing countries are priced competitively with other stocks elsewhere in the world, so equity owners may not get super-high returns even if the underlying economies grow quickly.

In other words, price/earnings ratios are already high, risk is already low, and interest rates are already low, so that kind of one-time huge gain is going to be hard to get again, unless you're in Bangladesh or Nigeria.

Kaplan: Mike, you've been looking in detail at demographic data and long-term trends globally, but have focused particularly on developed countries, where we have an aging population, people living longer, and having fewer children. You talk about the fundamental changes in family structure and the strains that all this is putting on the system of entitlements that we've created in the developed world. Where does that leave things for investors, especially for investors heading into retirement?

Michael Falk: What it means is that, without changes to existing entitlement structures, over the long term public security returns will be lower. This doesn't mean that we can't have a big year in the stock markets, although I think 2013 may have been misleading with the way the U.S. stock market dominated the vast majority of asset classes and other markets.

Another way of looking at a growth rate in a society, other than consumption, investment, government spending, and net exports, is a simpler formula, if you will: the number of workers multiplied by a productivity factor per worker. Retirement by definition is a loss of a labor input into society. So, if we don't have a commensurate increase in productivity—remember, number of workers multiplied by productivity—then over time, growth should slow.

In developed economies, we've seen productivity increases through parts of history—the modern age, that is—that have not been high

Michael Falk

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enough to overcome what is expected in terms of retirements. So, pension systems and benefits—and I do want to color them as *benefits*—basically push people out of the workforce. If you don't have a commensurate increase from a population on the young edge—more births, more young people coming into the workplace, or immigration—then the manmade retirement concept is harmful to long-term growth.

However, as Larry points out—"fewer, richer, greener," right?—there are benefits for society, as long as we retool all pension-style benefits so that we change the incentive structure of older people leaving the workforce earlier than they otherwise should.

I want to be careful about this, because not everybody can work longer, based on their employment. Some laborers may be able to work to a much older age; some simply can't. So, as we retool these benefits, we want to be sensitive to people's capacity to be able to work longer.

Siegel: That's right. We can't all work until we're 80. If there are fewer people of traditional working age and you change nothing else, then you have a problem. So, we have to change something. People who can work longer have to work longer. It is not clear that people whose labor is mostly physical will need to work longer. They are the people who say that their jobs have been replaced by machines. They're a less important part of the economy than they used to be, but we have to take their concerns and abilities into consideration when setting policy.

Falk: One advantage emerging economies have is that they don't have these types of pension and benefit systems in place yet, so they face a different scenario. Historically, what we have seen is that the need for unskilled labor declines dramatically as wealth increases in society. Think of it as a move from an agrarian economy to an industrial-based economy to a service-based economy.

That is just one factor why family formation is changing and birth rates or fertility rates are dropping materially. And it's not just in developed countries. In Brazil, from 1970 to 1975, there were 4.7 births on average per woman. From 2005 to 2010, Brazil had 1.9 births per woman. China, we know the story with the one-child policy, right? But Iran, 6.2. 30 years ago, down to 1.8 by 2005–2010. South Korea, 4.3, down to 1.3. This phenomenon is not just occurring in classic developed countries. Fertility rates around the world are dropping like stones. For reference, roughly 2.1 is the replacement rate of birth to stabilize a population ratio in developed countries.

A New Retirement Arrangement

Kaplan: So, it seems to me one of the areas that has to change is the basic arrangement that we believe that the government will take care of us when we retire.

Siegel: When Social Security was instituted in the U.S., life expectancy was in the mid-60s, which is exactly where the retirement age was set. The average American couldn't expect to live much past retirement age.

A system that says we're going to take care of you if you're one of the few who lives beyond the official retirement age is sustainable. But if the few become the many, the system becomes unsustainable. Today, most people live 20 years beyond the effective retirement age of 62. The benefit formulas have to change.

Falk: It will be a political challenge, but as Herbert Stein said, "If something cannot go on forever, it will stop." If we adjust the retirement age we factor in the stabilization of physical capability, how much longer can people work? The number that comes out is roughly age 72 or 73. Now, that sounds like a shocking jump in age from 62 or 65, but if we play the theoretical game and adjust retirement to 72, the potential rates of return would be very positive from an economic standpoint. It fixes Social Security's funding problem completely.

But let's get back to reality. You just have to change the expectation of what is possible by raising the retirement age. The transition phase could be 10 to 15 years to ease people into it. The good news is that if we change the expectation, younger people would have time to make changes in their human capital—their capability of making money and earning a living. They have time to continue their education, deepen the field they're already in, or go into a different field to raise their human capital.

Kaplan: Outside of raising the Social Security retirement age, what other incentives can you give people to work longer who are able to work longer?

Falk: One of the major topics is health care. What if the nature of how people are responsible for paying for their health care changed? This is a very involved topic, and I'm oversimplifying it, but we need to connect the user and payer of services more directly. So, if I need to have knee surgery, I'm responsible for more of the cost of the knee surgery. Then as you get older, as you require more health services, you would have to work longer to generate the income to pay for them.

When we factor in what those costs are—and we know they can be extraordinary—then the incentives change. You're not just working longer to generate more savings. You're also working longer to cover your responsibility of future health costs. The big issue is responsibility and shifting away from an entitlement mentality.

Kaplan: But aren't we currently moving further apart the payment of services and the consumption of those services?

Falk: We are. We're going the wrong direction. But I have to appreciate the cost of health-care services today is extraordinarily high, and it's extraordinarily high for reasons that are business issues that really shouldn't be having an impact on the costs the way they have.

The Cleveland Clinic estimates upward of 30% of every dollar spent on health care is administrative-related. Think about that for a second. Almost a third is for administration, because of the different hands in the pot and and the billing and administration. We need tort reform. This is U.S.-specific, obviously. We have different states with different rules. We can't sell policies across state lines. There are a range of issues that are really adding to the costs of our health-care delivery that don't have a thing to do with the actual health-care service.

Kaplan: Yes, but outside of the U.S. health care is an entitlement for most of the world. It's completely separated from the responsibility. You pay for it through your taxes.

Falk: Right. So, if you think of it that way, it is an indirect entitlement; you've made a pledge to pay for it without knowing the expense. If, say, Canadians are going to age similarly to Americans and you have these rising costs to economic growth, then it's just going to filter into the tax system. One way or another, we're all going to pay, so the question is, do we want to know what we're going to pay? Do we want control over what we're going to pay?

In the last six months of one's life in the U.S., upward of more than 50% of the person's lifetime medical costs are spent. Why is that? Because these are the least healthy of your days. We know the wonderful things the medical community can do to keep us alive, but they don't necessarily add to quality of life. And it's very, very expensive.

I tossed out an idea a few years ago. What if, as part of all health-care policies, individuals had to sign an end-of-life declaration. It's revocable at any time, but they have to declare to either remain plugged in or to be unplugged. The potential savings would be massive and aren't even being tapped.

And there are ways to incent this. For example, if you have a health-care policy when you're older that has some sort of a limit, right? Let's say it has a half-million-dollar limit. Once you reach age 80, for example, that's your spending cap for the rest of your life. But here's the interesting thing. What if we say to people, "Listen, you can declare a beneficiary for up to 50% of your unused portion toward their health care"? Now, you can give the incentive of helping their heirs. There are different ways to do this, and I'm not saying this is the best solution. All I'm saying is that there are ways to build in incentives.

Annuitizing Retirement

Kaplan: We're talking about the government side of social insurance. What about from the private-sector side, where we've seen this massive transition from defined benefit to defined contribution? That seems to be exactly the opposite of what we need. If we're going to have a population of a lot of older people, then it seems that we're going to need longevity risk pooling that's characteristic of defined-benefit plans.

Falk: It's always purchasable, though, Paul. People can go out and buy an annuity contract. In essence, it's the same thing. It may not be as cheap or as good, but it's interesting. If you've got a pool of people from all over buying into an annuity contract versus employees of one company who have a defined benefit, we can ask the question, who has less counter-party risk? We know businesses fail. So can insurance companies. But we can argue maybe an insurance company is a little safer.

If, for example, somebody works to the age of 70, they could then purchase an annuity that will not begin paying out until they're 80-plus. These are sometimes known as "advanced life delayed annuities." They're essentially self-insuring for 10-plus years before the annuity starts paying out and they get that longevity protection. This is certainly achievable by people in a defined-contribution format.

Defined contribution has gotten a horrible name, and the reason is because we sort of set people up to fail. We said, "Do you want to participate, yes or no?" Well, who wants to lower their standard of living today? We said, "Do you want to increase your participation rate over time as you're making more money?" No, they want to live better. "Do you want to hear of 15 different investment choices? Go ahead and become your own portfolio manager."

The good news is that in 2006 the U.S. Congress pass the Pension Protection Act. Now, 401(k) plans can be constructed to be more automatic. You're in unless you say, "No, thank you, I don't want to save." You might have automatic increases each year or every couple of years unless you say no. And you may go into more of a professionally managed fund or a target-date fund or a balanced fund. If you do that over an entire career, I don't see why a defined contribution can't work quite well for people.

Siegel: There's another issue. Who would want to work at one company for their whole life? You can't possibly optimize your human capital that way. If we want to encourage people to be entrepreneurs selling their services to the highest bidder at each point in their lifespan, you can't do it through a single-employer defined-benefit system. It may work well for some people, but I don't see how it could possibly be an efficient overall standard.

Falk: I agree. To some extent, it's almost like we've romanticized the value of the defined benefit. Not that it's not a great way for people to receive benefits, but based upon how long people stay at one company, they never actually fully monetize their human capital.

Kaplan: But we don't see people annuitizing. We still see people trying to finance themselves without getting any of the mortality credits available from payout annuities. It just seems that if this is going to work, we are going to have to pool our longevity risk. Yes, the insurance companies are the institutions that have the ability to do that, but we just don't see a lot of people buying fixed payout annuities when they retire.

Falk: It's a behavioral issue, Paul, and it's because people don't want the kind of heads-or-tails, win-or-lose scenario from buying an annuity. What they know is if they live long enough, they win, but if they die early, then the assets go poof. The insurance company gets to keep them and their heirs or their benefactors don't get any assets.

What's interesting, then, with these advanced life delayed annuities is they can help—at last a little bit. They don't get you over the behavioral hurdle, but when you buy one of these deferred-style annuities, you might be paying 15 cents on the dollar for the same dollar of income you would generate at 65, maybe 10 cents on the dollar, based upon the way the math works out for a given individual.

Because of the lower cost, you can insure longevity in a much less expensive way, so if you don't get there, it's less of a cost or a loss to beneficiaries.

Siegel: To be fair, the insurance industry hasn't exactly distinguished itself in presenting this opportunity in a clear and understandable way to customers and in offering its product at transparent and competitive prices. Annuity contracts need to be tailored to the need they are designed to address, which is to guarantee a lifetime of income, rather than having a large number of expensive riders attached to them.

Falk: Correct. The only exception that could be an interesting rider is that for long-term care. We haven't touched on that yet. Standalone long-term care insurance policies have historically been a disappointment. Not for those who actually receive benefits. They've been fantastic for them. However, policies have been cancelled, they've been repriced. The industry has had a hard time. They underestimated what their costs would be, and as a result, they've underpriced these policies dramatically.

So, the question is, wouldn't we better off using a long-term-care rider, which is not so cheap, on an annuity contract or a life insurance contract, where you don't have some of the same risks that you had with standalone long-term-care policies?

Living Longer, Not Necessarily Better

Kaplan: You're touching on another issue. It's not just that people are living longer. They're not living healthier, right? We're getting an older population that needs all this additional medical care, and that creates this burden on the economy as well. We have this older population that requires a lot of our resources to sustain them.

Falk: Significant burdens, Paul, and it's a challenge that is only growing. With people living longer, the incidence of dementia and other chronic conditions is growing.

Most of the research that's being done in the area of longevity right now is on healthy aging. The Buck Institute out in California is doing some interesting research in this area, and it's about not necessarily just expanding one's lifespan but expanding one's health span.

This is a challenge, and society-wise, we need to start coming up with some better solutions for dealing with this. Family formation has changed; a smaller number of children in a family places a greater burden on any given child as their parents age and need assistance.

Kaplan: And that has implications for long-term economic growth. We have fewer people taking care of more older people.

Falk: Correct, but we choose not to look at the negative side of it because they're our family members, they're our friends, and they're still living. But the reality is, we do have to come up with some better solutions. We're not going to solve this problem per se, but we do need to come up with some better ideas for how to support our elderly population. Many cultures have filial obligations to take care of the elderly. But as you say, Paul, that can exact a cost on growth.

And this leads to a policy discussion about immigration. Are younger people going to be the individuals who migrate to the United States from other countries? Right now, the United States gets somewhere on the order of 20% of the migration pool in the world. The United States, in fact, is the only developed economy that is at or above the 2.1 replacement rate of birth to stabilize a population.

Siegel: Our population is actually growing fairly quickly relative to other very advanced countries such as those in Northern Europe and Japan.

Falk: That's correct. And there's a very interesting economic aspect to this that could pop up. If the United States could get itself on more stable economic footing by dealing with budgets, debt ceilings, and entitlements, if we could start to solve some of these challenges, then it has an opportunity to have economic growth that is better than other developed countries.

Kaplan: All these issues seem to be caveats to Larry's long-term forecast of growth.

Siegel: People are going to continue to try to live better lives by innovating, and as long as you can collect the payoff from your innovation, so that there's an incentive to do it, it will take place. We haven't run out of services and goods that can be delivered better, faster, more cheaply, differently, more creatively, nor have we run out of the need for new inventions.

Just getting the old inventions to more people is very important. If an African buys his first car, that action has a bigger impact on global GDP and ultimately on the global equity markets than if my daughter trades her iPhone 5 for an iPhone 6. Yet the car has been around in some form for about 130 years. It's not a new technology in any way.

Falk: Agreed. But if we're going to expect lower rates of return going forward, the corollary is that people might need to be saving more. If people are saving more, then their individual consumption might decrease, but we may have improved capital formation from how that savings is then used to invest, to grow productivity, or in ways to benefit society.

So, we don't have to have a doom-and-gloom perspective, but I think we do have to acknowledge that we have challenges that need to be addressed, and if we address them, things don't have to be that bad.

Kaplan: What are some practical things investors should do today?

Falk: The most practical thing that investors planning for retirement can do is to focus less on the asset side of their balance sheet and more on the liability side. They should still save diligently, but when they're preparing to go into retirement, they should have as few fixed expenses as possible—limit things like mortgages and car payments. Then, even when markets go up and down, their assets are going to go up and down, but they don't have to make as many fixed payments to another party. They have much more control over their plan independent of the markets.

Siegel: If you do that, Michael, what assets might you hold? Are you suggesting a liability-driven investing policy?

Falk: Yes, I suggest that to an extent. Let me give an example. Let's say an individual decides he needs $4,000 a month to live his life how he wants. He's got $2,500 in fixed costs; $1,500 is variable. If he gets $2,000 from Social Security, then I would say he should consider an additional $500 from an annuity to guarantee coverage of his fixed spending needs. The $1,500 of variable spending can be covered with more-volatile assets.

Kaplan: What about investors not nearing retirement? Many young working people today are skeptical that they're even going to be receiving Social Security payments when they're 65 or whatever the retirement age becomes. What do you say to younger people?

Falk: First, it's not a bad thing if they're skeptical about receiving those benefits, because then maybe they'll save more. Besides saving, young people should make sure their portfolio is diversified in terms of types of asset classes—stocks, bonds, real assets. When I say real assets, I mean things such as real estate, nonrenewable commodities versus renewables, and maybe master limited partnerships, in lieu of oil.

Siegel: When all assets seem like they're fully priced, it's harder to figure out what to invest in, but your asset choices are still going to add to 100% of your capital. So, I would encourage people to focus on identifying and managing their liabilities and then prepaying the part of their liability that they cannot live without.

I would re-emphasize the deferred annuity structure as being a very practical way to make the retirement problem manageable. By purchasing an advanced life delayed annuity, you can make the years from 85 to 107, or however long you think you're going to live, somebody else's problem. Then, only the years from 65 to 85, or even fewer years if you work past 65, are your problem. Saving for that much smaller number of years is a lot easier to grasp psychologically and a lot easier to do operationally.

You can read about this idea in the *Financial Analysts Journal* in my article with Steve Sexauer, called "A Pension Promise to Oneself" (November/December 2013). It talks about the implementation issues in a strategy like that. M

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