Will Demographic Trends Drive Higher Inflation and Interest Rates?

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by Laurence B. Siegel

Powerful demographic trends will cause higher inflation and interest rates, and a reduction in inequality as labor reclaims its bargaining power in the global economy, argue two British authors in a persuasive book.

That conclusion "caused a furor"[1] when it came from the celebrated British economist and central banker Charles Goodhart, and Manoj Pradhan, a macroeconomist. It is the central prediction in their new book, *The Great Demographic Reversal.*

Why would these relatively anodyne forecasts cause a "furor"? What evidence do they present? And, most importantly, how will investors be affected if their predictions come true?

The controversy comes from the contrarian nature of their forecast. Mainstream thinking is that low inflation and interest rates are here to stay. This consensus is based on central bank statements of intent as well as the low-growth environment of an aging society with limited productivity gains.

But conventional thinking typically comes from extrapolating the recent past – a few years, a decade or two, at most a generation. Inflation and interest rates have been declining since the early 1980s, long enough to wipe the memory of earlier increases. Flouting convention, Goodhart and Pradhan base their forecasts on aspects of the present that they say will change radically.

They conclude: "Of one thing we are sure, the future will look nothing like the past."

When I make forecasts, I am mindful of Neils Bohr's aphorism (sometimes attributed to Yogi Berra or other worthies) that making predictions is hard, especially if they are about the future. So, on what do Goodhart and Pradhan base their confidence? Mostly demography: the aging global population and the slowing or reversal of population growth rates will cause labor shortages and thus inflation and higher interest rates.

If this forecast is accurate, it's good and bad news. It's bad for holders of nominal bonds, and for owners of equity in companies that rely on abundant cheap labor. But it is good news in a broader sense. Painfully slow growth in wages, and an actual decline in the labor *share* of the economy's productivity, has been a social stressor for the last generation. If you spend a few hours on social media, you'll conclude that peasants with pitchforks are about to invade the royal palace, and that those of us who depend on the continued flourishing of liberal capitalism for our livelihood and the health of our investment portfolios are in deep trouble. I doubt it, but stranger things have happened. A diminution in the stress caused by low wages would be a welcome relief.

The *Great Demographic Reversal* is a scholarly *tour de force*, replete with charts, data tables, and footnotes. While it's written in friendly, relatively easy language, it takes some effort to fully appreciate the case they're making, simply because of the volume and complexity of the evidence they present. I highly recommend the book, but it's not Sunday afternoon reading at the pool.

Let's now walk through the logic that leads to their surprising conclusions.

A tighter market for labor

For most of our working lives (if we are under, say, 75 years of age), those in the United States have been in a bear market for traditional labor – the work we do with our bodies and hands. Real wages haven't gone down, and some elements of the standard of living have increased massively, but we have been experiencing the effects of several huge positive shocks in the supply of labor:

- The baby boom of 1946-1964, with "boomers" moving into the labor force about 18 years later;

- The entry of women into market labor at unprecedented levels;
- The opening of trade, so that U.S. workers suddenly faced foreign competition;
- The transition, starting in 1965 but accelerating after 1990, from low to high rates of immigration;
- The rise of China, with its increasingly skilled and well-equipped labor force, drawn from a population four times as large as that of the United States; and
- The rise of India, Africa, and other parts of the world that had previously contributed little to the global labor equation.

Could there possibly have been a worse environment for U.S. workers? Yet the economy has grown so much, and nature of work has changed so profoundly, that the world of work has not disappeared, with pre-COVID unemployment of 3.5% as measured. (Yes, I know about discouraged workers and statistical measurement problems.) We have not been competed out of existence, although for some workers it feels that way.

But the wages of many U.S. workers would be *much* higher today if none of that had happened. This would have come with an immense downside: The rest of the world, except for Europe and Japan, would be in a sorry state. Extreme poverty would have still been the fate of most people.

Instead, the extreme-poverty rate as defined by the World Bank fell from 40% of the world's population in 1980 to 8%. Recently, the World Bank declared that half of the population of the world is middle class, something that was unimaginable only a generation ago.

If you only care about people in the United States, we should have pursued the alternate history that I just outlined. But I don't only care about Americans, so on balance the last 40 years have been miraculous for the world and its people. In fact, Goodhart and Pradhan describe the last few decades as a "'sweet spot' that has dictated the path of inflation, interest rates and inequality."

It has mostly been sweet for stockholders, bondholders (especially), highly skilled workers, and almost everybody in emerging economies. There is nothing sweet, however, about the pay rates of low-skilled workers in advanced economies, or about the path of inequality within countries – although inequality has declined *across* countries. But, the authors warn, "as that sweet spot turns sour, the multi-decade trends that demography brought about are set for a dramatic reversal."

Ouch. Or hurray. We'll get to the authors' concerns and warnings later, as well as the upsides of the forecast. First, how do we get from today's conditions to the authors' anticipated world of labor in short supply, with high wages, and higher generalized inflation?

All of the labor-pool-expanding trends are *over*, except in India and Africa. They envision a reversal of those trends, as their title indicates. Because many demographic phenomena are predictable, years or decades in advance, aspects of this reversal are already in place – but their economic consequences are less clear. The reversal will consist of a shrinking labor pool, drawn from populations that are simultaneously aging and shrinking in absolute numbers. Let's examine this dynamic, and what it means for the world economy.

The soaring dependency ratio

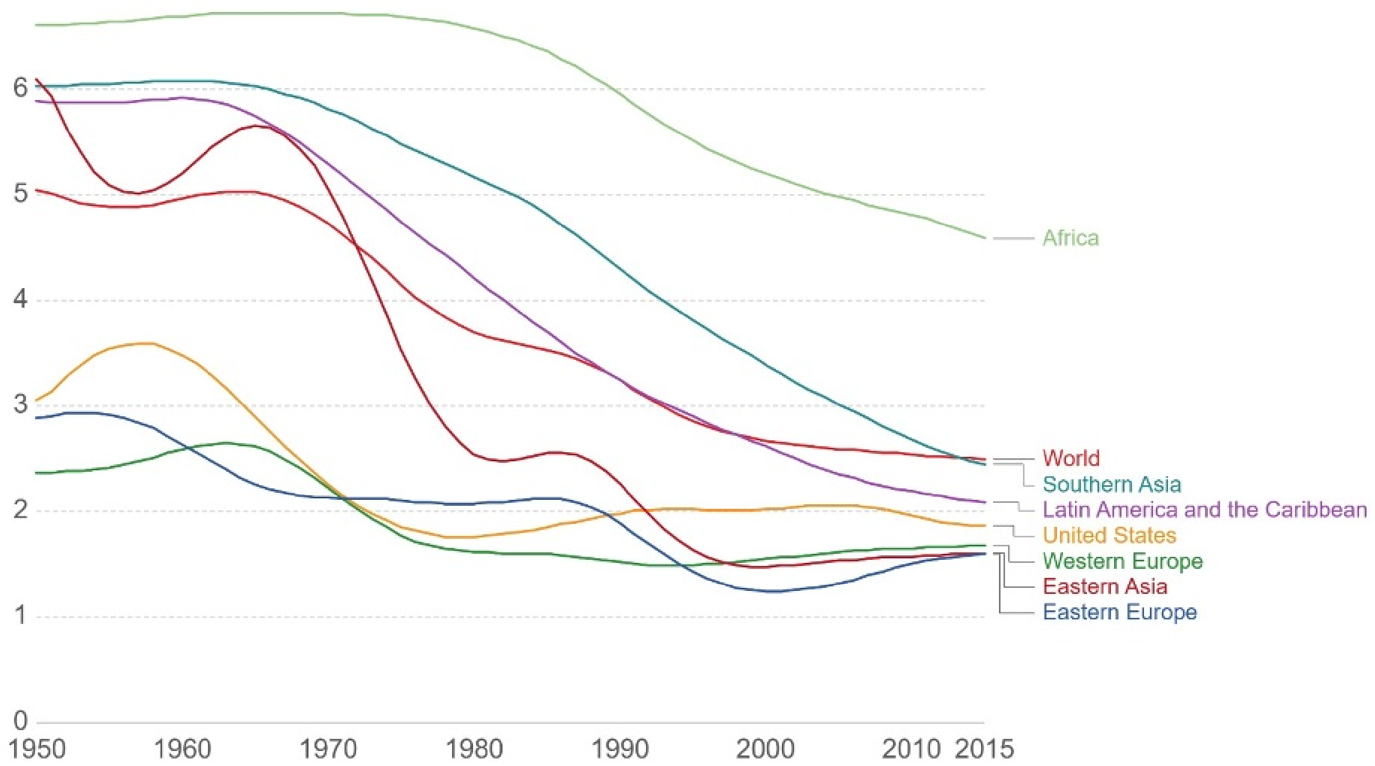
At the heart of Goodhart and Pradhan's thesis is the rising *dependency ratio* of non-workers to workers. In traditional societies everybody worked, except for young children, the very old, and the very infirm. Those societies faced many challenges but providing for a large population of non-workers wasn't one of them.

Today, with much longer lifespan, greater savings and retirement plans, and the "long adolescence" that many people experience before working for money, the dependency ratio has soared and will rise much further. There are two separate but related reasons for the continued rise: longer life spans and slowing of birth rates. (If people were living longer but the birth rate were steady, the population would still age but much more slowly.)

We are living longer. But the other contributor to the aging of society, the global decline in birth rates, isn't as widely appreciated – and fertility has reached shockingly low levels in quite a wide variety of countries. (World record: prosperous South Korea, 0.92 children *per couple*, not per person.) Exhibit 1 shows total fertility rates – the average number of children borne in a woman's lifetime – by major world region from 1950 to 2015:

Exhibit 1

Total fertility rate by major world region, 1950-2015



Source: UN Population Division (2017 Revision)

OurWorldInData.org/fertility-rate • CC BY

Regions with large numbers of people have fertility rates of 2.1 (the breakeven level) or below – all of Europe, North America, and east Asia, with south Asia and the world average not far behind.[2] These regions will experience actual population declines soon. There is no more reserve army of Chinese peasants! Only Africa's population is still growing robustly, and it, too, is slowing.

Losing our minds?

A society with both long life spans and low birth rates will quickly become dominated by old people, who (despite my self-interest in saying we're wise and valuable) require more care than the young and middle-aged. To make matters worse, we're at risk of losing our minds: "[A] growing proportion of this aging population will become incapacitated with dementia… and will need care," write Goodhart and Pradhan. Because this type of care cannot easily be automated, the authors expect that "an increasing portion of the labor force, whether in the family or not, will be redirected to looking after the elderly." They continue,

> This means the rest of the labor force has to raise its productivity [and will] need all the automation we can get…to compensate for that which will be lost to caring for the aging population.

The coming wage-driven inflation

With a shrinking young and middle-aged population and with automation and offshoring unrealistic for jobs in the caring occupations, then, there's only one possibility, the authors argue: Labor will get more expensive. This is, of course, good for workers. However, when someone receives a higher price, someone else pays it, and the latter "someone" will include corporate employers, retirees, and the already overextended government sector. *We will get inflation.*

This is the core of Goodhart and Pradhan's argument: In a reversal of the last 40 years, rising wages in an aging society will cause inflation and higher interest rates. Growth will be slow as these higher costs work their way through the economy.

But this news, while worrisome, is not entirely grim. In another, unexpected, reversal of fortune, there will be less inequality.

Less inequality – finally!

A visitor from Mars might observe our society and conclude that we are at the end of a 40-year war of the smart against the stupid, and that the smart won.[3] Today's very rich are mostly entrepreneurs, not monarchs, landholders, or inheritors of great fortunes; the moderately rich are credentialed professionals; and the *lumpenproletariat*, while benefiting from the general abundance of cheap goods, are way, way behind. This uncomfortable bifurcation of the American population seems to get worse every year. We do have a middle class, but it consists of immigrants and public-sector workers. What an odd fruit salad of a society.

Fascinatingly, Goodhart and Pradhan expect this trend to reverse, along with the great demographic reversal of the title. A global labor shortage, especially in lower-skilled occupations such as elder care, is the driver. The very sharp uptick in the wages of male high-school dropouts in the U.S. over 2012-2017, bringing them almost back to 1990 levels, is good supporting evidence. But the authors invoke populism and nationalism as part of the constellation of forces reversing inequality, a concerning thought given the capital destruction that these political tendencies will wreak when out of control.

If populism has an upside, it is that the plight of low-skilled workers has been brought to public attention. We cannot simply give a large percentage of the productive population nothing to do, while living on handouts, without serious social consequences. Work is the only successful poverty program, and if the current interest in reindustrialization and reshoring produces any actual change, we will both become more productive and less liable for relief funds – a double benefit.

The mountain of debt

But…future generations will face a new obstacle to growth: massive levels of government debt, with much more to come.[4]

Mainstream thinking sees this situation as deflationary because it requires tax increases, which retard growth, and because it is sustainable if inflation and interest rates are held at low levels. While governments have historically gotten out of debt traps through inflation, current policies have not produced any inflation. The consensus forecast is that inflation and interest rates will remain low out of necessity – higher interest rates would bankrupt the issuers.

Goodhart and Pradhan forecast the opposite:

> The mainstream view sees debt and demography singing from the same hymn sheet in driving growth, inflation, and interest rates lower for the foreseeable future. We see the two in conflict, with debt a gigantic block that the irresistible forces of demography will eventually move out of its way [through inflation].

This inflation, which the authors, regard as the only way the debt can be paid back in nominal terms, will turn the last three decades' monetary policies on their ear. It will be fun to watch easy-money, rock-star central bankers pull out Paul Volcker's old playbook to try to fight inflation. And fiscal policy will be hampered by a much more limited ability to borrow in the new, higher-interest rate environment.

How investors can respond to these trends

How can investors respond to these potential changes? One set of answers lies in investment policy and strategy: Buy equities outside the developed world. Buy inflation hedges, such as commodities, real assets, and TIPS. Avoid nominal bonds. Prepare for higher tax rates. Be wary of investments in the most heavily indebted countries. Get ahead of demographic changes before everyone agrees that they have occurred or are important, because by then it will be too late.

Working longer

But, at a more personal level, we will have to change our way of life. We cannot afford to become economically unproductive at an early age; this is a fancy way of saying we'll have to work longer. Retirement or lifecycle finance consists of spreading the income from one's working life over one's whole life. It's hard – just about impossible, for most people – to save enough from working for 35 or 40 years to pay for another 35 or 40 (the amount of time a long-lived population might expect to live in the future after retiring at age 65).

Working longer helps solve that problem in two ways: by producing more money, and reducing the number of years when the money is needed. Fortunately, most work has become dramatically physically easier in the last few generations, so working longer is possible for many people. Unfortunately, the lowest-paid work has *not* become much easier, so those with the greatest need to work longer for financial reasons have the least ability to do so. This is a challenge our children and grandchildren will face; they can expect to pay higher taxes in support of this part of the population.

Meanwhile, we'd be well advised to position ourselves for careers that extend beyond traditional retirement age; to develop skills that will be valuable in the economy of the future; and to pursue strategies that preserve physical, mental, and social fitness.

Advice to readers

Goodhart and Pradhan cover all the topics I've touched on, and many others, in more than sufficient detail. Highly analytical readers will love the book; more casual readers will want to skim it, looking for its many buried nuggets. The graphics are exceptional, providing writers of reports and presentations with a great deal of fodder for conveying their own thoughts and opinions.

If the full array of outcomes predicted by Goodhart and Pradhan come to pass, we are in trouble. The problem is not inflation – we have learned to live with that before, although not happily – or higher interest rates, which would be salutary.

The problem is slow growth.

Real *per capita* GDP will continue to increase – albeit too slowly unless the growth dynamic changes – and that is what counts for individual well-being. Governments, however, cannot service their astronomical debts out of *per capita* anything. They rely on total government revenues, which are the product of *per capita* income, the number of people, and the percentage of income taken by the taxman. With fewer people, it would take an unacceptable combination of sharply curtailed spending and higher taxes to make the debt stop growing and instead recede.

The only ways out of this trap, then, are inflation, as forecast by Goodhart and Pradhan, with its mix of good and bad consequences; population growth; or a much higher rate of productivity growth. Because world population is already straining the Earth's capacity, population stabilization is most welcome and we should embrace it.[5] So productivity growth (*per capita* growth) is the key.[6] Inventors and innovators: your ingenuity will be desperately needed.

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[1] Michael Heise's words, in a review of the book. Heise writes for the *Financial Times* and other publications.

[2] At a total fertility rate of 2, each couple replaces itself. The breakeven rate is usually assumed to be 2.1 because some children do not survive to reproductive age, but in advanced societies where almost all children survive, the number is a little lower, around 2.05.

[3] See, for example, Freedman (2016).

[4] I am less worried about private and corporate debt, but it still needs to be serviced out of the current cash flows of the debtor so it is a concern for that reason. The reason I'm less worried is that these debts were incurred by individuals and corporations acting in their own interest, so presumably some thought was given to whether the money was borrowed for a good and profitable purpose. Put another way, the assets backing the debt were "hocked" intentionally. Governments, however, increase their debt load in response to voter pressures, with those responsible for paying it back typically not even born yet, or if they've been born, have no vote and little current stake in the economy.

[5] An argument can be made, as Bryan Caplan [2011] did, that the Earth's theoretical carrying capacity is many times the current population, and that population stabilization is a recipe for economic and cultural stagnation and decline. I'm not buying it. Caplan argues, echoing Julian Simon [1996], that ideas are the driving force behind economic growth and that more people equals more ideas. I believe that the current population of 7+ billion has enough ideas to make all of us rich, and that implementation is the bottleneck. Implementation is made immeasurably easier by not having to provide for many billions of additional people. Please see my book, *Fewer, Richer, Greener* (Wiley, 2019).

[6] Per capita GDP growth and productivity growth are not identical, but might as well be (the difference between them caused by changes in the number of hours worked per person, a number that cannot grow indefinitely – nor should we want it to).

