



## INVESTMENT UPDATE

For the past eighteen months, the Federal Reserve has used its full set of tools to slow the US economy and bring inflation down. And while inflation is moving in the right direction, the US economy has barely slowed at all, as the labor market is still adding hundreds of thousands of new jobs each month, the housing market keeps on truckin', and consumer spending remains strong. Is there a "big picture" explanation for why the economy doesn't appear to be responding to the Fed's anti-growth policies?

The global economy has undergone significant changes since the early 1980s, the last time the US experienced a spike in inflation like the one we've seen over the past three years. One of the biggest changes, and the topic we're keen to hone in on this month, is how the world's age-related demographics have shifted over the decades, and how that impacts current and future economic growth.

Fifty years ago the US was at the tail end of a period of rapid population growth, as baby boomers were entering the workforce and having kids themselves. Likewise, the populations of other developed economies were still growing, albeit with slowing trends in birth rates. Meanwhile, population growth was still soaring among less-developed countries, where birth control was not easily accessible and public policies still encouraged families to have children.

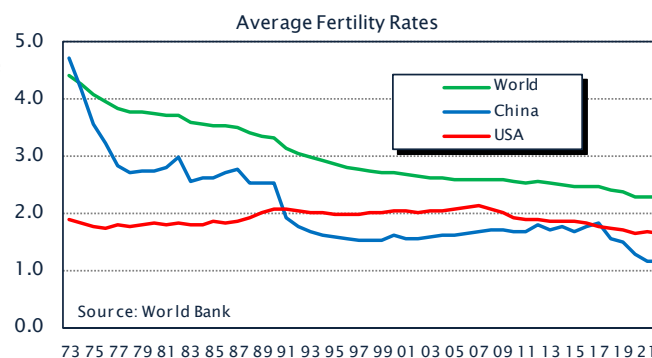
Economists use the term "natural growth" to distinguish between in-country population growth and population growth attributable to immigration. The standard measure of native population growth is a country's birth rate, which is the number of children the average woman has over her lifespan. All things equal, a birth rate greater than two (actually, above 2.1, to account for child mortality) implies a growing population, as a woman who gives birth to more than two children during her lifetime will be replacing more than just themselves and their partner for the next generation.

As the chart on this page shows, worldwide fertility rates have been dropping over the past 50 years, from an average of 4.5 children per woman in the early 1970s to approximately 2.3 today. The biggest changes in fertility rates have been among less-developed countries, perhaps none so dramatic as China, which instituted its "one child" per household policy in the early

1980s in order to control its population growth, a policy that was enforced at times with house-by-house inspections. That policy, for reasons that will soon become clear, was dropped by the Chinese government in 2016.

But it's not just China; in general, as economies industrialize and modernize, with less dependence on sustenance-related agriculture, the need for large families dissipates. Children, as we all know, are expensive to raise, and to the extent birth control also has become more widely available (even in poorer countries) over the past few decades, birth rates were destined to fall.

Birth rates aren't the only thing that's changed over the years; life expectancy has also moved higher, especially in less-developed economies. Again, looking at the World Bank data, we see that global life expectancy has moved from an average lifespan of 62 years in 1980 to 74 years of age in 2019. In 2020 and 2021, the global COVID pandemic reduced life expectancy by three years, but researchers believe this will prove to be a short-term blip, with lifespans expected to continue to move up in the coming decades.



The combination of lower birth rates and longer life expectancy has had a measurable impact on the distribution of the world's population over this period. Demographers use "population pyramids" to show the way a typical country's populace looks in graphical form, which traditionally has shown most of the population distributed in the lower age groups, with increasingly smaller percentages of the population among the older age groups. But due to declining fertility and longer life expectancy, these population distributions, especially when we look at wealthy developed economies, are pyramid-like in name only. Japan, a country known for low birthrates and long lifespans, has a population pyramid today that looks more like an ice cream cone.

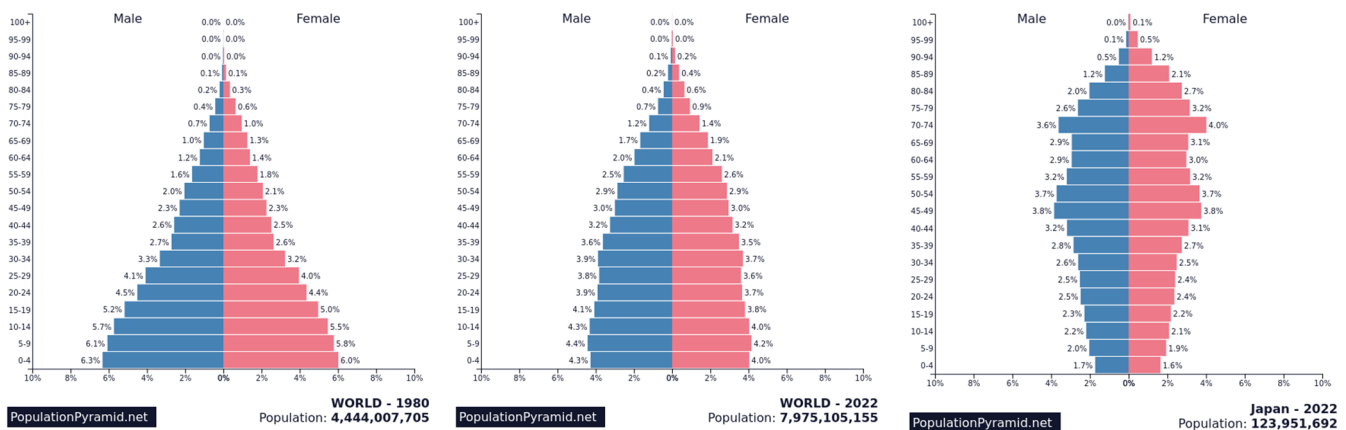
On the next page we show three population pyramids (go to [www.populationpyramid.net](http://www.populationpyramid.net) to play around with these graphs, if you're so inclined). On the far left is the world's population age distribution in 1980, in the middle is the same chart for 2022, and on the right is Japan in 2022. While it's tempting to call out Japan as a special case, a country that's essentially closed to immigration, with a healthy older population sup-

ported by a modern health care system, and historically low fertility rates (averaging less than 1.4 for decades), its 2022 population distribution is not radically different than those of most European countries—they’ve all become top-heavy. The US, by comparison, has a population distribution that looks a lot less inverted, with each of the 14 age cohorts up to the 65–69 year-old group fairly evenly distributed, each comprising between 5.6% and 7.0% of the combined male/female population. So while we’re less top-heavy than some other developed economies, all of the world’s major countries are in the same boat.

Why does this matter, and what does this have to do with the bond market? A lot, as it turns out. It’s widely recognized that people roughly between 35 and 55 years of age are the most productive members of the labor force, with a high level of

the age to receive retirement benefits has not moved much beyond 65 in any developed economy, including the US. If countries can’t extend the retirement age, they will eventually have to “needs test” the pool of retirees and distribute accordingly, or find some other way of reducing the per-capita benefit for retirees. Failure to do so will bankrupt economies unless taxes can be raised to cover the gap. There are no easy solutions when the labor pool shrinks and the number of retirees balloons.

What this means for bond investors is more policy fights like the one early this summer over the funding of these programs. It adds more drama to an already angsty political environment, exemplified by the recent downgrade of the US Treasury’s credit rating by Fitch, from AAA to AA+. And the US is in relatively



skills, experience, and energy, with fewer health issues than older workers. To maximize an economy’s productivity, you need this group to make up the lion’s share of your labor force. An economy with a workforce increasingly dependent on older citizens will generate a lower GDP, all else equal, than a younger, more dynamic one.

On the consumption side of things, an aging population has different spending patterns than a younger one, and those differences are compounded in a lower-birthrate environment with fewer expenditures on children’s needs. Over the coming decades, there will be (relatively speaking) less spent on education, cars, clothing, and insurance, and more spent on medical (a lot more) and leisure activities.

A critical factor for policymakers in countries with aging populations is the impact on tax revenues and government assistance programs, including Medicare and Social Security. These programs will become increasingly burdensome to governments as the number of payers into the system goes down relative to the number of dependents. And those dependents are going to be living a lot longer, requiring even more resources once retirement age is achieved.

Policymakers understand that these demographic changes will eventually require policy adjustments. Human lifespans have increased by more than a decade over the past 20 years, while

good financial and demographic shape, with a population and labor force expected to grow for at least the next few decades. For countries like Japan, China, and Russia, which are experiencing outright population declines, the outlook is even worse, with not just growing fiscal burdens, but with shrinking pies from which to carve out benefits. With a few exceptions (Scandinavia, the US, UK, and Canada, primarily) the wealthiest countries are going to be struggling just to grow their economies, after inflation, in the coming years.

Finally, one last thought—and it’s a big one. The analysis of the impact of aging populations around the globe has been ongoing for at least 20 years, but some of the assumptions have changed, post-COVID. While the combined factors discussed above had, on balance, pointed to a decline in global growth rates, with a related downshift in inflationary pressures, some economists now believe that these demographic shifts could result in more of a “stagflation” outcome—that is, slow economic growth but with stubbornly high inflation. The main reason for this shift is the recognition that wage earners will have increased bargaining power in an environment where there are ongoing labor shortages. This could be alleviated to some extent if policies are implemented to encourage people to stay in the workforce longer, or to draw people who’ve dropped out to return back to the workforce, through job training, flexible scheduling, and subsidized childcare for young families.