

## The falling birthrate threatens a disaster so costly no politician dares think about it

[Sonia Sodha](#)



*A demographic timebomb caused by an ageing, shrinking population is looming for many western countries, so where are the policies to defuse it?*

*Sun 23 Jun 2024 09.05 BST*

A conference on changing demographics I attended last week tackled the fact that, while we are living longer – a great product of medical innovation – many of us will also experience extended periods later in life with physical and mental decline, so requiring more health and social care than in the past. Yet falling birthrates mean there will be fewer working-age taxpayers, raising the question of how we foot the bill.

As I listened, the Institute for Fiscal Studies' description of [this general election campaign](#) being "a conspiracy of silence" came to mind. Neither the Conservatives nor the Labour party are confronting voters with the tough fiscal choices facing the country. Further cuts on already underfunded public services are baked into spending plans accepted by both parties. To avoid them, either taxes or the national debt would have to rise in a context of high interest rates, unless the economy somehow starts booming. And so the election has inevitably ended up feeling a bit like a phoney war. Difficult decisions inevitably await a new government on 5 July, but we are none the wiser on exactly how they will play out.

While I've always had a vague sense that declining populations and ageing societies will mean that governments will face an unenviable fiscal crunch in a few decades, there's nothing like talking about it for three days straight at a Ditchley Foundation conference to put contemporary political aversion to talking about trade-offs in context. And what awaits us could make today's financial headaches seem barely perceptible in comparison.

Global birthrates are declining: [women on average had 4.7 children each in 1950](#); by 2100 this is projected to fall to 1.7. This trend is particularly pronounced in wealthier nations: [23 countries](#), including Japan, Spain and South Korea, are forecast to see their populations halve by 2100. The result is that we are facing the prospect of shrinking, ageing societies in which there will be fewer working-age people for every retired person. This means fewer taxpayers to meet the growing costs of state pensions, healthcare and social care.

There are two ways to slow this crunch down. One is to find a way of increasing birthrates. But falling rates are in large part down to social progress, a function of women's liberation. In a world where women aren't solely defined by being mothers, it's hardly surprising that more couples decide to have fewer or no children. That said, while people want fewer children, [there is also evidence](#) that they are not having the number of children they say they want. Policies that improve the affordability of housing and childcare and so help reduce the need to delay having children, or that make fertility treatment such as IVF more available on the NHS, are good things, even if their impact on overall birthrates is likely to be fairly marginal.

*The financial pressures loaded on today's 25-year-olds could look quite minor compared with those facing the 25-year-olds of 2050*

The second is to improve the working-age-to-retired ratio through higher levels of immigration. But there are reasons why this isn't a sustainable answer: immigrants age, too; there might be growing competition for immigrants globally as more and more countries confront this demographic issue; politicians have not proved willing to make a positive case for immigration based on need; and there are ethical questions about filling in our gaps by attracting skilled workers from other countries whose birthrates have also started to fall.

The UK is a bit more insulated from demographic change than other wealthy countries, [thanks to a higher birthrate](#) and relatively high levels of immigration (it helps that women [born outside the UK have more children on average than those born there](#)). AI may help cushion the blow by driving increases in productivity, though there is every chance that the spoils will be concentrated among the very richest. But we cannot avoid the coming crunch altogether. The financial pressures loaded on today's 25-year-olds – spending a huge chunk of their income on rent, many without a hope of ever getting on the housing ladder, and repaying an average of [£47,000 of tuition fee debt](#) if they went to university – could look quite minor compared with those facing the 25-year-olds of 2050, who will also have to pay a good deal more tax to ensure anything like current levels of health, care and state pension provision. It is more difficult politically to redistribute resources in a society where living standards are declining across the piece, so intragenerational inequality is also likely to get worse.

The incentives for even the most responsible politician to grapple with this profoundly depressing scenario, let alone our current fiscal issues, are nonexistent. Of course it would have been mad for Labour to run on a platform of “things can only get worse”, particularly when the main oppositional force in recent years has been the populist promise that Brexit will solve all of the UK's long-term structural issues and any attempt to confront voters with trade-offs is batted away with the accusation of “talking Britain down”. Yet this is true outside election campaigns, too: neither Labour nor the Conservatives addressed the social care crisis while in government, which bodes badly for difficult conversations in the future.

Last weekend's conference was a rude wake-up call for the bit of me that, if I'm honest, just really hopes that Labour's shadow chancellor, Rachel Reeves, is right that a healthy dose of economic growth will catapult us back into the late 90s. Maybe we'll get lucky for a while, but I think it's more likely we have a painful adjustment to a future in which stagnant or declining living standards are the new normal. We know what a Labour government felt like in a time of plenty; we may well be about to experience what it will feel like in a time of greater scarcity. I'll be celebrating as hard as anyone if Labour win handsomely next month, but I have tempered my expectations of what they will be able to achieve.

*Sonia Sodha is an Observer columnist*

## Global Population Crash Isn't Sci-Fi Anymore

We used to worry about the planet getting too crowded, but there are plenty of downsides to a shrinking humanity as well.

10 March 2024 at 05:00 GMT



By [Niall Ferguson](#)

Niall Ferguson is a Bloomberg Opinion columnist. He is the Milbank Family Senior Fellow at the Hoover Institution at Stanford University and the author, most recently, of "Doom: The Politics of Catastrophe."

We used to imagine humanity populating the universe. In Isaac Asimov's *Foundation* (1952), mankind has established a vast multi-planetary empire by the year 47000. "There were nearly twenty-five million inhabited planets in the Galaxy," Asimov wrote. "The population of Trantor [the imperial capital] ... was well in excess of forty billions."

In Liu Cixin's *Three-Body Problem* (2006), by contrast, we're a cosmic rounding error, bracing ourselves for the terrifying Trisolaran invasion. As the [trailer](#) for the new Netflix series puts it: "They are coming, and there is nothing you can do to stop them."

When Asimov was born in 1920, the global population was around 1.9 billion. When he published *Foundation*, it was 2.64 billion. By the time of his death in 1992, it was 5.5 billion, nearly three times what it had been at his birth. Considering that there had been a mere 500 million humans when Christopher Columbus landed on the New World, the proliferation of the species *homo sapiens* in the modern era had been an astonishing feat.

Small wonder some members of Asimov's generation came to dread overpopulation and fret about an impending Malthusian disaster. This led to all kinds of efforts to promote contraception and abortion, as described in Matt Connelly's *Fatal Misconception: The Struggle to Control World Population* (2008). Among these was China's one-child policy, the harshest ever government intervention in human reproductive behavior.

Superficially, these efforts were a complete failure. Frank Notestein, the Princeton demographer who became the founding director of the United Nations Population Division (UNPD), [estimated](#) in 1945 that the world's population would be 3.3 billion by the year 2000. In fact, it exceeded 6.1 billion. Today it is estimated to be more than 8 billion. In its most recent projection, the UNPD's median estimate is that the global population will reach 10.4 billion by the mid 2080s, with an upper bound of more than 12 billion by the end of the century.

Yet that seems rather a low-probability scenario. The European Commission's Centre of Expertise on Population and Migration projects that the global population will peak at 9.8 billion in the 2070s. According to the [Institute for Health Metrics and Evaluation](#), an independent research organization, it will peak at a lower level and earlier still, at 9.7 billion in 2064.

The key word is “peak.” Nearly all demographers now appreciate that we shall likely reach peak humanity this century. This is not because a lethal pandemic will drive up mortality far more than Covid-19 did, though that possibility should never be ruled out. Nor is it because the UNPD incorporates into its population model any other apocalyptic scenario, whether disastrous climate change or nuclear war.

It is simply because, all over the world, the total fertility rate (TFR) — the number of live children the average woman bears in her lifetime — has been falling since the 1970s. In one country after another, it has dropped under the 2.1 threshold (the “replacement rate,” allowing for childhood deaths and sex imbalances), below which the population is bound to decline. This fertility slump is in many ways the most remarkable trend of our era. And it is not only [Elon Musk](#) who worries that “population collapse is potentially the greatest risk to the future of civilization.”

Our species is not done multiplying, to be sure. But, to quote the [UNPD](#), “More than half of the projected increase in the global population between 2022 and 2050 is expected to be concentrated in just eight countries: the Democratic Republic of the Congo [DRC], Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania.” That is because already “close to half of the global population lives in a country or area where lifetime fertility is below 2.1 births per woman.”

Not many people foresaw the global fertility collapse. Nor did just about anyone expect it to happen everywhere. And I can’t recall a single pundit predicting just how low it would go in some countries. In South Korea the total fertility rate in 2023 is estimated to have been 0.72. In Europe there is no longer a difference between Roman Catholic and Protestant countries. Italy’s current TFR (1.21) is lower than England’s (1.44). Nor is there a difference between Christian and Islamic civilizations — those great historical entities whose clashes the historian Samuel Huntington [worried about](#). The US total fertility rate is now 1.62. The figure for the Islamic Republic of Iran is 1.54.

The timing of this huge demographic transition has varied, to be sure. In the US, the TFR fell below 2.0 in 1973. In the UK, it happened a year later; in Italy in 1977. The East Asian countries were not far behind: In South Korea TFR was above 2.0 until 1984; in China until 1991. Fertility remained higher for longer in the Muslim world, but it fell below 2.0 in Iran as early as 2001. Even in India the TFR has now fallen below 2.0.

Only in the countries of sub-Saharan Africa does fertility remain well above the replacement rate. In the DRC, for example, the average woman still bears more than 6 children. But there, too, fertility is expected to plummet in the coming decades. The global TFR, according to the UNPD's medium-variant projection, will fall from 2.3 in 2021 to 1.8 in 2100. The differences in estimates of when we reach peak humanity largely hinge on how quickly demographers think family size will shrink in Africa.

What are the drivers of the great fertility slump? One theory, according to a thought-provoking 2006 [paper](#) by Wolfgang Lutz, Vegard Skirbekk and Maria Rita Testa, is that "societies progress up the hierarchy of needs from physical survival to emotional self-actualization, and as they do so, rearing children gets short shrift because people pursue other, more individualist aims. ... People find other ways to find meaning in life." Another interpretation (see for example this [paper](#) by Ron Lesthaeghe) gives the agency to women, emphasizing that fertility drops as female education and employment rise.

Over the past century, beginning in Western Europe and North America, a rising proportion of women have entered higher education and the skilled labor force. Improved education has also given women greater autonomy within relationships, a better understanding of contraception, and greater input into family planning. Many have opted to delay becoming mothers in order to pursue their careers. And the opportunity cost of having children increases as women's wages rise relative to their male partners.

Another way of looking at the problem is that, after its initial kids-in-cotton-mills phase, the industrial revolution reduced the importance of children as a source of unskilled labor. As countries develop economically, families invest more in their children, providing them with better education, which increases the cost of raising each individual child.

Cultural change has also played a part. One [study](#) estimated that roughly a third of the decline in fertility in the US between 2007 and 2016 was due to the decline in unintended births. My generation — the baby boomers — were more impulsive and indeed reckless about sex. By contrast, according to the psychologists Brooke Wells and Jean Twenge, millennials have fewer sex partners on average than we did. A 2020 [analysis](#) of responses to the General Social Survey revealed higher rates of sexual inactivity among the most recent cohort of 20- to 24-year-olds than among their predecessors born in the 1970s and '80s. Between 2000-02 and 2016-18, the proportion of 18- to 24-year-old men who reported having no sexual activity in the past year increased from 19% to 31%.

The fact that the declines in sexual activity were most pronounced among students and men with lower incomes and with part-time or no employment suggests that declining sexual activity is economically determined. However, other possible explanations include the “stress and busyness of modern life,” the supply of “online entertainment that may compete with sexual activity,” elevated rates of depression and anxiety among young adults, the detrimental effect of smartphones on real-world human interactions, and the lack of appeal to women of “hooking up.”

The most recent version of the UK National Survey of Sexual Attitudes and Lifestyles revealed a similar marked decline in the frequency of sex in Britain. The return of the “No sex please, we’re British” ethos mainly affects married or cohabiting couples and — according to a careful [analysis](#) in The British Medical Journal — is most likely due to “the introduction of the iPhone in 2007 and the global recession of 2008.”

Another key driver of declining fertility has been declining religiosity. Using data in the [World Values Survey](#), we can identify a clear correlation between the rise of secularization and the fall of family size. A fascinating historical anomaly, the early decline of fertility in late-18th century France — described by the French demographer Alfred Sauvy as “the most important fact” of his country’s history — has been plausibly explained by the advance of secular thinking, and therefore of contraceptive practices, in the wake of the religious strife of the previous two centuries.

Fertility can sometimes go back up — witness the [Covid baby “bump.”](#) Moreover, according to survey data, many women would like to have more children. In low-fertility countries, according to a [2019 study](#) for the UN Population Fund, there is “a wide gap between fertility aspirations at younger ages and achieved fertility later in life, signaling that many women, men and couples face obstacles in realizing their fertility plans.”

That the main obstacles are the perceived economic costs of a larger family is borne out by the fact that many of the most successful professional women have more than two children. In the words of Moshe Hazan and Hosny Zoabi, “the cross-sectional relationship between fertility and women’s education in the US has recently become [U-shaped](#). ... By substituting their own time for market services to raise children and run their households, highly educated women are able to have more children and work longer hours.”

But not everyone can be a supermom with a crew of house managers and nannies. Can governments do anything to push back up fertility across the board? They are certainly trying. Since the 1970s, the number of countries aiming to raise fertility with a variety of government incentives has risen roughly fivefold. But there are no examples I know of in which pro-natal policies have really worked. For years, President Vladimir Putin has urged Russians to have more babies in order to prevent the depopulation of the vast federation he governs. Though Russian fertility rose in the decade after 2000, the TFR never even got close to 2, and has slumped back to 1.5.



What Mussolini called “the battle for births” is a losing proposition.

The [global trend](#) is to make abortion easier. (In the past 30 years, more than 60 countries have altered their abortion laws. All but four — the US, El Salvador, Nicaragua and Poland — eased access to abortion). A growing number of countries permit euthanasia and/or assisted suicide.

Average [sperm counts have fallen](#) by more than 50% in 50 years. No one knows exactly why, but bad food, bad air and bad lifestyle are the contenders. *How Mankind Chose Extinction* will be an interesting read if anyone is left to write it.

Half a century ago, we worried about *The Population Bomb* (the title of Paul Ehrlich’s 1968 bestseller). Now that we can see “peak humanity” within our children’s lifetimes — conceivably in the 2060s — why isn’t everyone breathing a sigh of relief? I can think of three reasons.

First, the advanced countries that already have declining populations find the consequences of fertility restriction rather melancholy: low economic growth, empty schools, crowded retirement homes, a general lack of youthful vitality.

Second, because the fertility drop came later in the Middle East and North Africa and has barely begun in sub-Saharan Africa, we are seeing a dramatic shift in the global demographic balance in favor of people with darker pigmentation — as a Scotsman married to a Somali, I am doing my part for this trend — many of them Muslims. This worries many of the mostly white and mostly Christian peoples who were globally dominant from around 1750 to 2000.

Third, the peoples with the highest fertility mostly live in poor places that climate change and armed conflict are making even less appealing. So they move if they can — through North Africa or Western Asia toward Europe, or via Mexico to the US — or, to a significant extent, get involved in violent activities (crime or terrorism) where they can’t escape.

All this drives up the probability of right-wing politics in the developed world (old people vote for this and they outnumber the young), more conflict (borders can't seriously be defended without at least the threat of violence), the more rapid spread of infectious pathogens, and no effective attempt to address the climate issue.

Yet immigration still seems to North American and European elites to be the simplest solution to the problem of falling fertility. That is why, in high-income countries between 2000 and 2020, the contribution of net international migration to population growth exceeded the balance of births over deaths. What the geopolitical consequences of mass migration will be is anyone's guess. Some Russians worry that the Chinese have designs on their vast Eurasian empire east of the Urals. That seems unlikely if China's population is set to halve between now and 2100. China's problem is not a shortage of space; it is a surplus of empty apartment blocks.

In contemplating these and other scenarios, most pundits struggle to grasp that, when the human population begins to fall, it will do so not gradually, but almost as steeply as it once rose. "Humanity will not reach a plateau and then stabilize," [writes](#) Dean Spears in the New York Times. "It will begin an unprecedented decline ... If the world's fertility rate [after 2100] were the same as in the United States today, then the global population would fall from a peak of around 10 billion to [less than] 2 billion about 300 years later, over perhaps 10 generations. And if family sizes remained small, we would continue declining."

The problem is that this precipitous decline will come a century too late to avert the disastrous consequences of climate change that many today fear — and which are another reason why people will flee Africa, and another reason why young people in Europe say they will have few or no children.

The appropriate science fiction to read is therefore neither Asimov nor Liu Cixin. Begin, instead, with Mary Shelley's *The Last Man* (1826), in which a new Black Death wipes out all but one forlorn specimen of humanity. Then

turn to Margaret Atwood's *Oryx and Crake* (2003), in which the addled "Snow-man" is one of just a handful of survivors of a world ravaged by global warming, reckless genetic engineering, and a disastrous attempt at population reduction that resulted in a global plague.

For those, like Elon Musk, who still dream of building Asimov's galactic empire, such visions of human extinction are hard to stomach. He and others swim against the tide, siring five or six times as many offspring as the average male. But the reality is that a sub-2.1 global TFR is a more powerful historical force than even the fecund Mr. Musk. It is coming. And there is nothing we can do to stop it.

### [Opinion](#)

Tyler Cowen

## Could a \$70,000 Baby Bonus Solve South Korea's Fertility Crisis?

A proposal to pay families for having a child is worth considering, though it's unlikely to have much of an impact.

15 May 2024 at 22:00 BST

As the [global fertility crisis](#) continues to [accelerate](#), so does [anxiety](#) over what to do about it. A smaller world population may be fine in the short run, but it would not be good for it to asymptotically approach zero, and many citizens presumably do not want their countries to lose their geopolitical influence due to population decline. And in many cases, there is national debt to be paid off, which requires more young people to pay taxes and finance the pensions of the old.

Some countries are taking action. South Korea, which has the [world's lowest](#) total fertility rate — just above 0.7, far below the replacement level of 2.1 — is [pondering](#) a radical solution: baby bonuses of 100 million won each, or about \$70,000. For perspective, that is about twice South Korea's annual

per-capita income. At current birth rates, the plan would cost more than \$16 billion a year; if it is successful, it will cost even more.

## Korea's fertility rate sinks to record low despite \$270bn in incentives

**Average number of births per woman falls to 0.72 in country that already has the world's lowest rate, and has spent billions since 2006 to reverse the trend**

[Justin McCurry](#) *and agencies*

Wed 28 Feb 2024 05.57 GMT

South Korea's demographic crisis has deepened with the release of data showing its birthrate – already the world's lowest – fell to a new record low in 2023, despite billions of dollars in government schemes designed to persuade families to have more children.

Reports that South Korea's [population](#) had shrunk for the fourth straight year came soon after neighbouring Japan reported a [record decline in its population](#) last year, along with a record fall in the number of births and the lowest number of marriages since the end of the second world war.

The average number of children a South Korean woman has during her lifetime fell to 0.72, from 0.78 in 2022 – a decline of nearly 8% – according to preliminary data from Statistics Korea, a government-affiliated body. The rate is well below the average of 2.1 children the country needs to maintain its current population of 51 million.

Since 2018, South Korea has been the only member of the Organisation for Economic Co-Operation and Development (OECD) to have a rate below 1. In addition, South Korean women give birth for the first time at the average age of 33.6 – the highest among OECD members.

If the low fertility rate persists, the population of Asia's fifth-biggest economy is projected to almost halve to 26.8 million by 2100, according to the Institute for Health Metrics and Evaluation at the University of Washington in Seattle.

Lim Young-il, head of the population census division at Statistics Korea, told reporters: "The number of newborns in 2023 was 230,000, which was 19,200 fewer than the year before, representing a 7.7% decrease."

Since 2006 the government has invested more than 360tn won (\$270bn) in programmes to encourage couples to have more children, including cash subsidies, babysitting services and support for infertility treatment.

The current administration, led by the conservative president Yoon Suk Yeol, has made [reversing the falling birthrate](#) a national priority, and in December promised to come up with "extraordinary measures" to tackle the situation.

But financial and other inducements are failing to convince couples who cite skyrocketing child-rearing costs and property prices, a lack of well-paid jobs and the country's cut-throat education system as obstacles to having bigger families.

Experts have said that cultural factors are also responsible, including the difficulty working mothers have [juggling their jobs](#) with the expectation that they are mainly responsible for household chores and childcare.

South Korea's major political parties are showcasing policies to stem population decline ahead of April's national assembly election, including more public housing and easier loans, in the hope of dampening growing alarm that the country is facing "national extinction".

Being married is seen as a prerequisite to having children in South Korea, but marriages are also falling, with the cost of living often given as the main reason.

South Korea is [not alone in the region](#) in struggling with a rapidly ageing population and a lack of children.

The number of babies born in [Japan](#) in 2023 fell for an eighth straight year to a new low, government data showed this week, a year after the prime minister, Fumio Kishida, warned that the stubbornly low birthrate would soon threaten the country's ability "[to continue to function as a society](#)". The problem, he added, "cannot wait and cannot be postponed".

The health and welfare ministry said 758,631 babies had been born in [Japan](#) last year – a 5.1% decline from the previous year and the lowest number of births since statistics were first compiled in 1899.

The number of marriages fell by 5.9% to 489,281 couples, falling below a half million for the first time in 90 years – one of the key reasons for the declining birthrate.

Many younger Japanese say they are reluctant to marry or have families due to poor job prospects and living costs that are rising faster than salaries, along with a corporate culture that makes it difficult for both parents to work.

Japan's population of more than 125 million is projected to fall by about 30% to 87 million by 2070, with four out of every 10 people at age 65 or older.

The chief cabinet secretary, Yoshimasa Hayashi, said the declining birthrate had reached a "critical state".

He told reporters: "The period over the next six years or so until 2030s, when the younger population will start declining rapidly, will be the last chance we have to try to reverse the trend. There is no time to waste."

## **'I'm afraid to have children': fear of an older future in Japan and South Korea**

As birth and fertility rates fall, there is official concern about the economic impact of a declining and ageing population

[Justin McCurry](#) in Tokyo and [Raphael Rashid](#) in Seoul

Sat 19 Nov 2022 02.00 GMT

It is not hard to spot the grey hairs among the late-morning shoppers on Jizo-dori. Their owners have come to buy discount underwear and colourful blouses, have lunch with friends in retro cafes and, if they are over 60, have their nails done at huge discounts.

At regular intervals along the street, signs indicate the presence of defibrillators; and at Koganji temple, people pause to waft “cure-all” smoke from smouldering incense sticks over their aches and pains.

The Tokyo neighbourhood of Sugamo has long been a mecca for members of the capital’s older population. But [Japan](#)’s skewed demographics indicate that, in the decades to come, it will not be alone. It is a glimpse into a future that is older and less populated, battling the consequences of a depleted workforce and shrinking economy.

The population of the world’s third-biggest economy, where adult incontinence pads outsell babies’ nappies, has been in decline for several years and suffered a record fall of 644,000 in 2020-21, according to government data. It is expected to plummet from its current 125 million to an estimated 88 million in 2065 – a 30% decline in 45 years.

While the number of over-65s continues to grow – they now account for more than 28% of the [population](#) – the [birthrate remains stubbornly low](#). A Japanese woman can expect to have an average of 1.3 children during her lifetime – well below the 2.1 needed to sustain the current population size.

Official encouragement to have more children – backed by modest financial inducements – and warnings that long-term population decline will damage the health of the economy, have had little effect.

In 2021, the number of births totalled 811,604, the lowest since records were first kept in 1899, a faster decline than projected by demographic experts. By contrast, the number of centenarians stands at more than 90,500 – compared with only 153 in 1963.

Like their counterparts in neighbouring South Korea, Japanese women are increasingly [reluctant to marry and have children](#) – deterred by the financial pressures and traditional gender roles that force many to give up work as soon as they become pregnant and shoulder the burden of housework and childcare duties.



*The proportion of older people in the Japanese population continues to grow.*

“I used to think I would be married by 25 and a mother by 27,” said Nao Iwai, a university student in Tokyo. “But when I look at my eldest sister, who has a two-year-old girl, I’m afraid to have children.

“When you have a child in Japan, the husband keeps working but the mother is [expected to quit her job](#) and look after the children. I just feel that it’s hard to raise children, financially, mentally and physically. The government says it will provide better support for families with young children, but I don’t have much faith in politicians.”

The low fertility rate is partly a symptom of the advances Japanese women have made in recent years, says Yuka Minagawa, an associate professor at Sophia University in Tokyo.

Better educational attainment and a rise in the number of women in the workplace mean they are marrying, and having children, significantly later than their mothers and grandmothers.

“A possible factor for the reluctance of Japanese women to marry is the increasing costs of marriage,” Naohiro Yashiro a professor at Showa Women’s University, wrote in a recent essay for the [East Asia Forum](#) website.

“With higher education, more young women have similar wages to men, so their average search period for spouses is longer. Currently, the average age of first marriage for women is 29 years, well beyond the 25 years in the 1980s – when most women were only high school graduates.”

## **‘It is hard to see the fertility rate increasing’**



*A fountain at a park in Nakano, Tokyo. The birth rate remains low in Japan.*

While the government last month announced increases in financial pre- and post-natal support, it has yet to address long-term pressures on the birthrate, such as the cost of pre-school child care and compulsory education, and the rising cost of living.

“Japan is not a place where just anyone can have one or more children,” said Minagawa, adding that many mothers struggled to juggle work and family life. “Women continue to take on the lion’s share of household chores, even if they also work outside the home.”

Less than 14% of new fathers took paternity leave in Japan last year – well below the government’s target of 30% by 2025. A quarter took fewer than five days off, according to the health ministry.

“The government is encouraging men to take paternity leave – and the rate is increasing – but traditional ideas about the division of labour are still very strong,” said Machiko Osawa, a professor at Japan Women’s University who has served on a government committee for work-life balance.

“And [long working hours](#) prevent men from taking time off to be with their newborn children. All of the child-rearing responsibility is being shouldered by women, and as long as this continues, it is hard to see the fertility rate increasing.”

## **In South Korea ‘no one is taking responsibility’**



*Parents pray to wish for their children’s success in exams, at the Jogyesa temple in Seoul.*



A similar story is unfolding in [South Korea](#), which has the world's lowest fertility rate and a [rapidly ageing population](#). Concerns are growing about the strain on the economy and the pension system, which may [become depleted](#) in the coming decades.

The population [shrank for the first time](#) on record in 2021, and is [projected to fall further](#), from the current 52 million to 38 million, by 2070. The country's [fertility rate](#) last year was 0.81, the lowest in the world.

Local governments have implemented programmes to encourage people to have children. They are given cash handouts, help with fertility treatment, support for medical expenses, and loans.

But Jung Chang-lyul, an associate professor of social welfare at Dankook University, says cash incentives are “completely useless”.

“While the low birthrate problem may seem important on the surface, the real issue is that no one is taking responsibility,” Jung said, referring to the [high cost](#) of raising a child and real estate prices – not least in Seoul, where the average price of an apartment in has [doubled](#) in recent years.

“In a society where children start receiving private education as early as age two or three, and their achievements or wages are determined by their parents' wealth and the cost of their private education, those who are not financially well off think that giving birth to a child is like committing a sin.”

Choi Jung-hee, a newlywed office worker, has no plans to have children. “My life and my husband's come first,” she said. “We want a fun life together, and while people say having a child could bring us happiness, it would also mean having to give up a lot.”

Lifestyles are changing. For the first time, [the proportion of single-person households has surpassed 40%](#). Last year, the [number of marriages reached an all-time low](#) of 193,000, in a country where half the population now believes that marriage is not a necessity. Some, particularly women, prioritise personal freedom and wilfully rule out marriage entirely.

Despite changing attitudes, women have traditionally been expected to give up their jobs and become full-time housewives. South Korea currently has the OECD's [worst gender pay gap](#). The country has been ranked at the bottom of the Economist's [glass ceiling index](#), which measures where women have the best and worst chances of equal treatment at work, for the 10th consecutive year.

Traditional attitudes also persist. The government recently reversed a policy that sought to extend the legal definition of family to include those not bound by marriage. Influential conservative Christian lobby groups blame the country's low birthrate on homosexuality, and oppose anything less than the traditional family unit.

Ultimately, addressing people's wellbeing is one of the most important things when it comes to tackling the low birthrate problem, said Jung. Among OECD countries, South Korea has one of the [lowest levels of life satisfaction](#), and the [highest suicide rate](#).

“People will start having children only when we create a society in which children grow up to be happier than us.”

While Japan and South Korea have reluctantly [opened the door](#) to some foreign workers, there are few signs that either country is willing to embrace mass immigration to help defuse their ticking demographic time bombs.

“An inflow of an immigrant population with high fertility rates would help address the birthrate issue,” Minagawa said. “But that is unlikely to happen in Japan in the near future.

“Instead, it needs to find a way to encourage women to have multiple children to sustain the current population size. But that would require a fundamental change in the structure of Japanese society, starting with gender equality in the home and workplace.”

## How population decline could upend the global economy

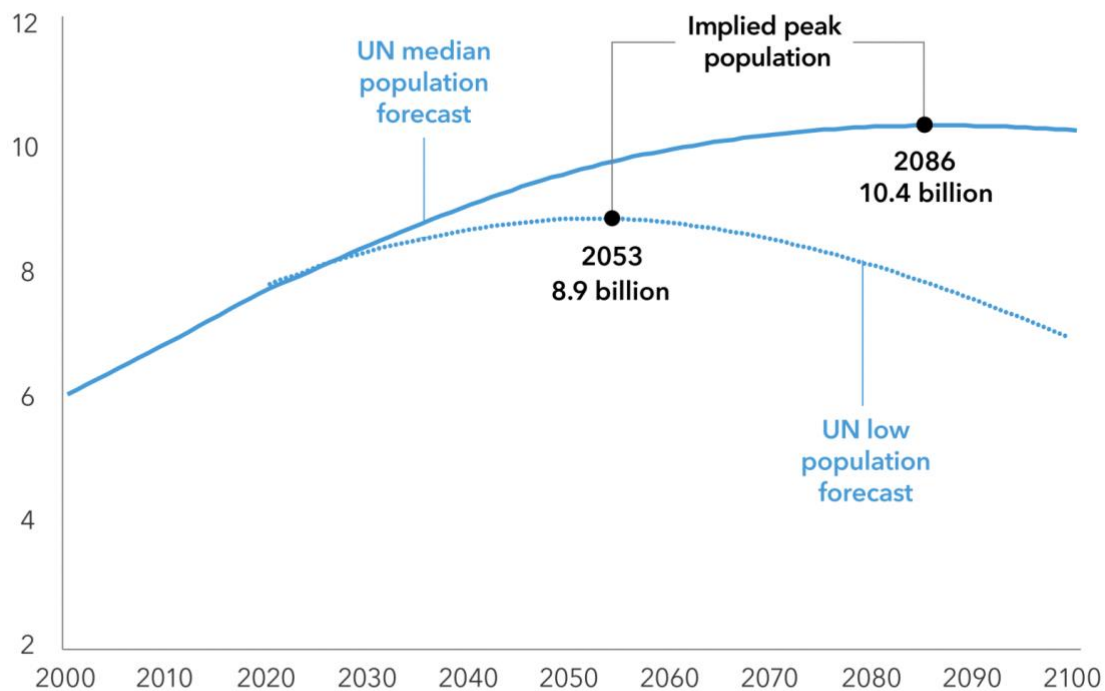
Jared Franz. Economist. March 14, 2024

China recently joined the long list of countries that had more deaths than births in 2023, underscoring a declining population trend that could upend the global economy. Demographic changes have major implications.

The United Nations predicts the world will reach peak population around 2086, but I think that figure may be optimistic. One reason is because the pandemic-era baby bust in some countries may have worsened the decline, and the problem appears to be long-lasting. Even in certain African and Latin American countries, where birthrates are historically high, the number of newborns has dropped closer to the replacement rate of 2.1 children per woman. Given these trends, humanity's population could peak around 2050.

## Humanity's population growth may peak earlier than projected

UN world population forecasts (billions)



Sources: Capital Group, United Nations (UN) Population Division. Figures reflect UN population estimates for 2023, as of July 2022. Low population forecast reflects a fertility rate that is 0.5 births per woman lower than the median projections.

## Crossing a demographics point of no return

But what does a planet with fewer people mean for society? It's a position the modern world hasn't been in, so we would be crossing a demographics Rubicon.

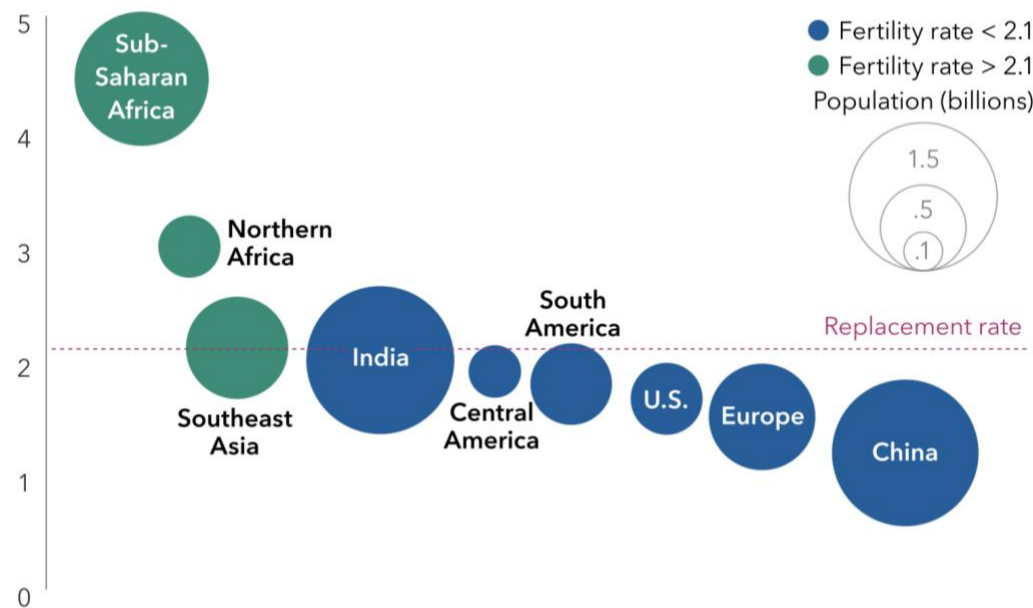
Demographics influence what people buy and a company's revenue potential. From an economist's perspective, it [helps determine monetary policy](#) and, ultimately, the well-being of each successive generation.

I prefer to look at countries individually because there are many idiosyncrasies, whether cultural or policy related. Here in the United States, demographic trends are favorable for growth compared to developed economies even though birthrates have dropped rapidly since the 1960s to the current level of 1.7%. That figure may be low, but it is higher than Europe, Japan and other developed economies. I think our population decline will be less severe, in part because our immigration policies are more liberal. Data shows that immigrants tend to have more children.

Japan is likely the most studied example of a shrinking society. The country has seen its population fall off for several decades, and its experience shows how quickly that can snowball. Japan reported 20,000 fewer people in 2008, and that figure has since ballooned to 831,872 fewer people in 2023. Prime Minister Fumio Kishida called the trend “the gravest crisis our country faces.”

### Most people live in countries with fertility rates below replacement level

Fertility rates across select countries and regions (total births/woman)



Sources: Capital Group, United Nations (U.N.) Population Division. Fertility rates reflect latest estimates for 2023, published July 2022.

China’s population decline has just begun, but I suspect it will face challenges not unlike Japan. How the Chinese government responds, in terms of economic stimulus and productivity expectations, will be important. In some ways, China may be more vulnerable since its economic development is much lower than when Japan’s population started to shrink. China ended its one-child policy in 2016 and has since introduced financial incentives for couples to have multiple children, but so far it hasn’t helped.

I won’t say it’s impossible to reverse population trends, but many Nordic countries have tried and failed to stem the lowering tide of demographics. They’ve offered everything from financial incentives to child care programs, but these plans have barely moved the needle, if at all.

As a result of China’s population decline, countries that rely on it for trade, such as Australia and Southeast Asian countries, could experience slower economic growth. But there are opportunities as well, since several of these emerging markets have better demographics and could offer incentives to [bring supply chains home](#).

# Declining population is negative for growth

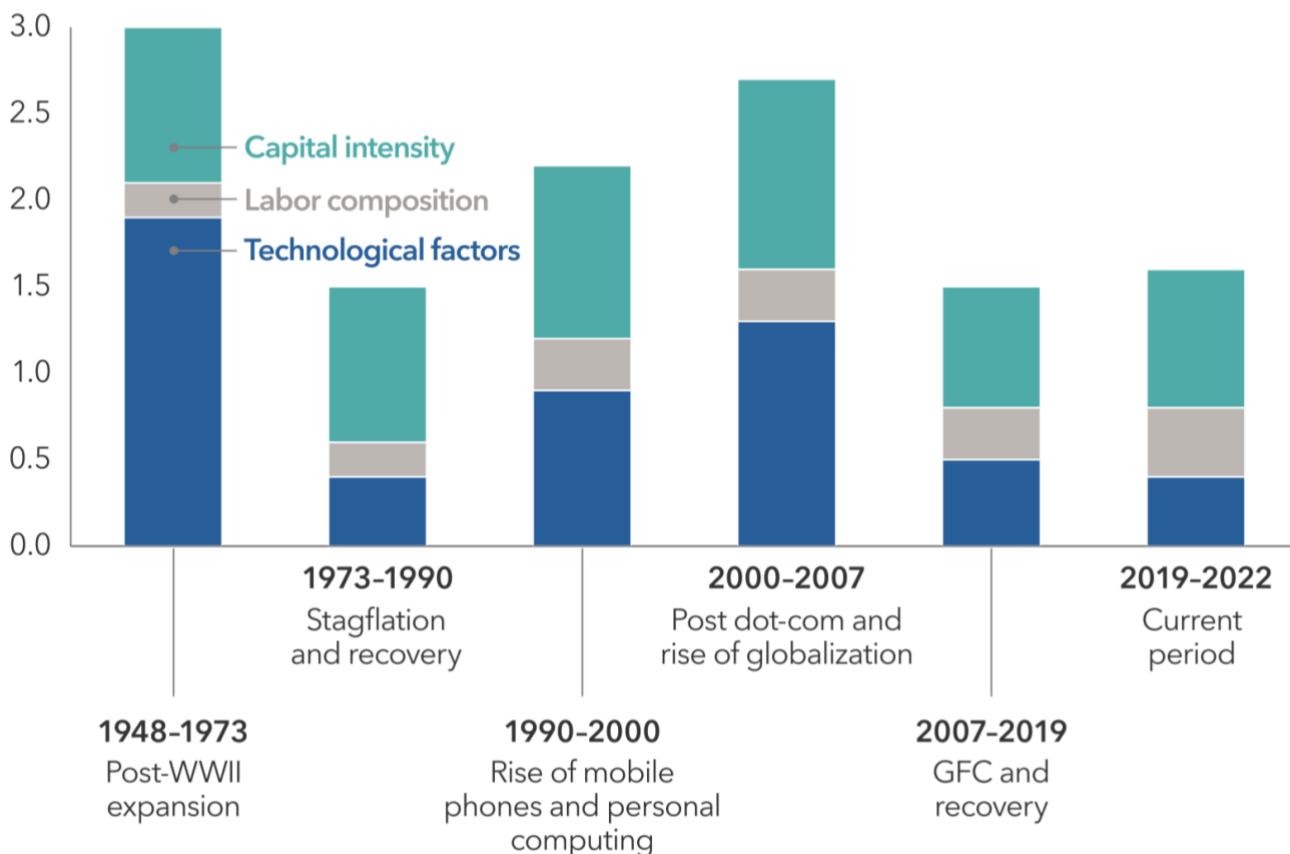
Economists care about demographics for a reason. Put simply, the long-run economic growth rate of a country depends heavily on population growth, with the other piece of the puzzle being productivity, which measures worker efficiency. That is, if you have population growing at 2% and productivity at about 1%, a country's gross domestic product is about 3%.

Sustained growth flows through to eventually increase income per person — an important indicator of the overall health of an economy. Over past generations, income has been growing for much of the world, alongside quality of life.

The obvious takeaway from population decline is fewer workers as more people retire. This can lead to an imbalance as government revenues from taxes fall and spending on retirees increases. When this happens, young people tend to leave that country or society, further exacerbating the problem.

## Innovation can lead to productivity gains

Contributors to overall U.S. labor productivity growth (annualized %)



Sources: Capital Group, Bureau of Labor and Statistics. Data last updated as of 11/21/2023.

There are also far-reaching consequences for industries ranging from consumer goods to health care and housing. In the case of the latter, supply scarcity could worsen as labor shortages and older people choosing to age in place rather than sell have kept home prices high. It will be essential for companies to continue to adapt. For example, as U.S. mortgage rates surged from around 3% to 8% when the U.S. Federal Reserve began raising rates in March 2022, homebuilding company Lennar offered large rate buydowns to customers, which helped boost affordability.

Investors have rightfully focused on health care as an area ripe for innovation to deal with declining birth rates, longer life expectancy and rising labor costs. For example, CVS Health has responded to these demographic trends via services such as walk-in clinics and programs that offer lower drug prices. The company has also sought to reduce costs by integrating its supply chain, including acquisitions of insurance companies and drug price negotiators.

It might seem ridiculous to write about deflation given the yearslong battle central banks worldwide are waging against rapid price increases. However, Japan presents a compelling case study of why deflation, or falling prices, may be the result of demographic shifts.

The scenario is straightforward: Every day in Japan there are fewer people and less demand for goods and services, which exerts a downward pressure on prices. When this happens, economic slumps or recessions are more likely, and typical central bank toolkits to combat downturns — such as lowering rates — aren't as effective. The Bank of Japan implemented a negative interest rate policy in 2016 to spur economic growth, but that policy is largely viewed as a failure as GDP has generally been weak since the early 1990s.

Deflation is a problem no central bank wants to wrestle with. Falling prices are associated with stagnant growth, weak spending and low overall confidence in the future. It's basically kryptonite for the economy.

Japan is just one example. There are some influential economists who think declining demographics could lead to structurally higher inflation as a dwindling labor force pushes wages and production costs higher.

There's an unintentional collision of two forces happening right now: demographics and artificial intelligence (AI). These two disruptive megatrends will change the future of work across health care, manufacturing, commerce and more.

Some might look at current demographic trends and think the world will be negatively impacted. Others note fewer people could mean less stress on the environment. There is a strong relationship between population growth and carbon dioxide emissions: When economic activity increases, so do CO2 emissions.

AI could herald a new era of increases in productivity, so perhaps we don't need as many people as we did in the past for growth.

It's still very early, but I hope AI can fill the gaps left by demographic trends so that some of the worst-case scenarios projected won't happen. Instead, we'll be looking at a society that's not just resilient, but very adaptable to potential shocks.

**Jared Franz** is an economist with 18 years of investment industry experience (as of 12/31/2023). He holds a PhD in economics from the University of Illinois at Chicago, a bachelor's degree in mathematics from Northwestern University and attended the U.S. Naval Academy.

# How population decline will change the world for the better

Scientific American

Stephanie Feldstein is the population and sustainability director at the Center for Biological Diversity

***A future with fewer people offers increased opportunity and a healthier environment***



Commuters crossing crowded London Bridge on the way home from work, London, England, UK.

China's population has [fallen after decades of sky-high growth](#). This major shift in the world's most populous country would be a big deal by itself, but China's hardly alone in its declining numbers: despite the momentous occasion of the global population surpassing eight billion late last year, the United Nations predicts [dozens of countries](#) will have shrinking populations by 2050. This is good

news. Considering no other large animal's population has grown as much, as quickly or as devastatingly for other species as ours, we should all be celebrating population decline.

Declining populations will ease the pressure eight billion people put on the planet. As the population and sustainability director at the Center for Biological Diversity, I've seen the devastating effects of our ever-expanding footprint on global ecosystems. But if you listen to [economists](#) (and [Elon Musk](#)), you might believe falling birthrates mean the sky is falling as fewer babies means fewer workers and consumers driving economic growth.

But there's more to the story than dollars. Where our current model of endless growth and short-term profits sacrifices vulnerable people and the planet's future, population decline could help create a future with more opportunity and a healthy, biologically rich world. We're at a crossroads—and we decide what happens next. We can maintain the economic status quo and continue to pursue infinite growth on a finite planet. Or we can heed the warning signs of a planet pushed to its limits, put the brakes on environmental catastrophe, and choose a different way to define prosperity that's grounded in equity and a thriving natural world.

Every person on the planet needs food, water, energy and a place to call home. And if we want to increase wealth equity and quality of life—as we should—the demands per person will increase, even with the best-case scenario for sustainable development.

For example, as China grew in population and wealth, so did its demands on the planet. China's per capita environmental footprint is [less than half](#) of the U.S., but the country's total environmental footprint is twice as large, with the nation responsible for one [quarter of imported deforestation](#) and [one third of global greenhouse emissions](#). Reducing consumption in high-income countries is necessary, but insufficient on its own if global population continues to rise.

As the human population has doubled over the past 50 years, wildlife populations have [plummeted by an average of 69 percent](#). We've already altered [at least 70 percent](#) of Earth's land, with some reports putting that number at [97 percent](#). Our activities have driven wildlife from their homes and destroyed irreplaceable ecosystems.

The loss of biodiversity is tragic in itself. A world without elephants, hellbender salamanders and the [million other species at risk of extinction](#) in the coming decades would be deeply impoverished. Wild plants and animals enrich our lives and hold vital ecosystems together. The fresh water we need to survive, the plants we rely on for food and medicine, and the forests we depend on for clean air and carbon sequestration are all the product of complex interactions between life-forms ranging from microbes and pollinators to carnivores and scavengers. When even a single thread is pulled from that tapestry, the entire system can unravel.

For those more worried about economics than life on Earth, the World Bank estimates that ecosystem collapse could [cost \\$2.7 trillion a year](#) by 2030. Deloitte recently estimated climate chaos could cost the United States alone [\\$14.5 trillion](#) by 2070 as we respond to the increasingly frequent and intense damage caused by extreme weather and wildfires, and the threats to communities, farms and businesses from droughts and unpredictable weather. While many assume population decline would inevitably harm the economy, researchers found that lower fertility rates would not only result in lower emissions by 2055, but a per capita income increase of [10 percent](#).

Lower fertility rates also typically signal an increase in gender equality. Better-educated women tend to have fewer children, later in life. This slows population growth and helps [reduce carbon emissions](#). And when women are in leadership roles, they're more likely than men to advance initiatives to [fight climate change](#) and [protect nature](#). These outcomes are side effects of policies that are necessary regardless of their impact on population.



In places where these cultural changes have happened, there's no going back. Even in China, where fertility was initially reduced by the draconian one-child policy, [women don't want to give up](#) their educational and economic freedom now that larger families are allowed.

Population decline is only a threat to an economy based on growth. Shifting to a model based on degrowth and equity alongside lower fertility rates will help fight climate change and increase wealth and well-being.

If populations decline, some places will have to adapt to societal aging. If we choose a deliberate decline resulting from increased well-being, then we could take the fear out of family planning and make a better future for people and the planet.

We must choose. We can let the growth-based economy determine our planet's fate, or we can stop pretending that demography and ecology are two separate issues.

With the first scenario we'll find that an economy fueled by limitless population growth makes it increasingly difficult to address environmental crises. Communities are already struggling in the face of worsening droughts, extreme weather and other consequences of climate disruption—and population pressure makes adaptation even harder. A growing population will further stress damaged ecosystems, reducing their resilience and increasing the risk of threats like pandemics, soil desertification and biodiversity loss in a downward spiral.

With the second—slow decline and all that comes with it—we can ultimately scale back our pressure on the environment, adapt to climate change, and protect enough places for imperiled wildlife to find refuge and potentially recover.

But despite how inevitable population decline will benefit people and the planet, world leaders have done little to prepare for a world beyond the paradigm of endless growth. They need to prepare for an aging population now while realigning our socioeconomic structures toward degrowth. Meanwhile, immigration can help soften some of the demographic blows by bringing younger people into aging countries.

Governments must invest in health care, support caregivers, help people who want to work longer do so, and redesign communities to meet the housing, transportation and service needs of older people. We need to move our economy toward one where [people and nature can thrive](#). That means managing consumption, prioritizing social and environmental welfare over profits, valuing cooperation and recognizing the need for a range of community-driven solutions. These practices already exist—in mutual-aid programs and worker-owned cooperatives—but they must become the foundation of our economy rather than the exception.

We also need to bring together the reproductive rights and gender equity movements, and the environmental movement. Environmental toxicity, reproductive health and wildlife protection [are deeply intertwined](#). Pollution, climate change and degraded ecosystems harm pregnant people, fetuses and children, and make it difficult to raise safe and healthy families.

Finally, we need what the United Nations' most recent climate and biodiversity reports drive home, and conservationists, climate scientists and policy makers have demanded for decades: a rapid, just transition to renewable energy and sustainable food systems and a global commitment to [halting human-caused extinctions now](#).

Population stabilization and decline will inevitably be achieved by centering human rights. Policy makers must guarantee bodily autonomy and access to reproductive health care, gender equity, and women and girls' education.

By addressing the crises in front of us, empowering everyone to decide if and when to have children, and planning for population decline, we can choose a future of sustainable abundance.