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What if Birth Rates Skyrocket Instead of Collapse?

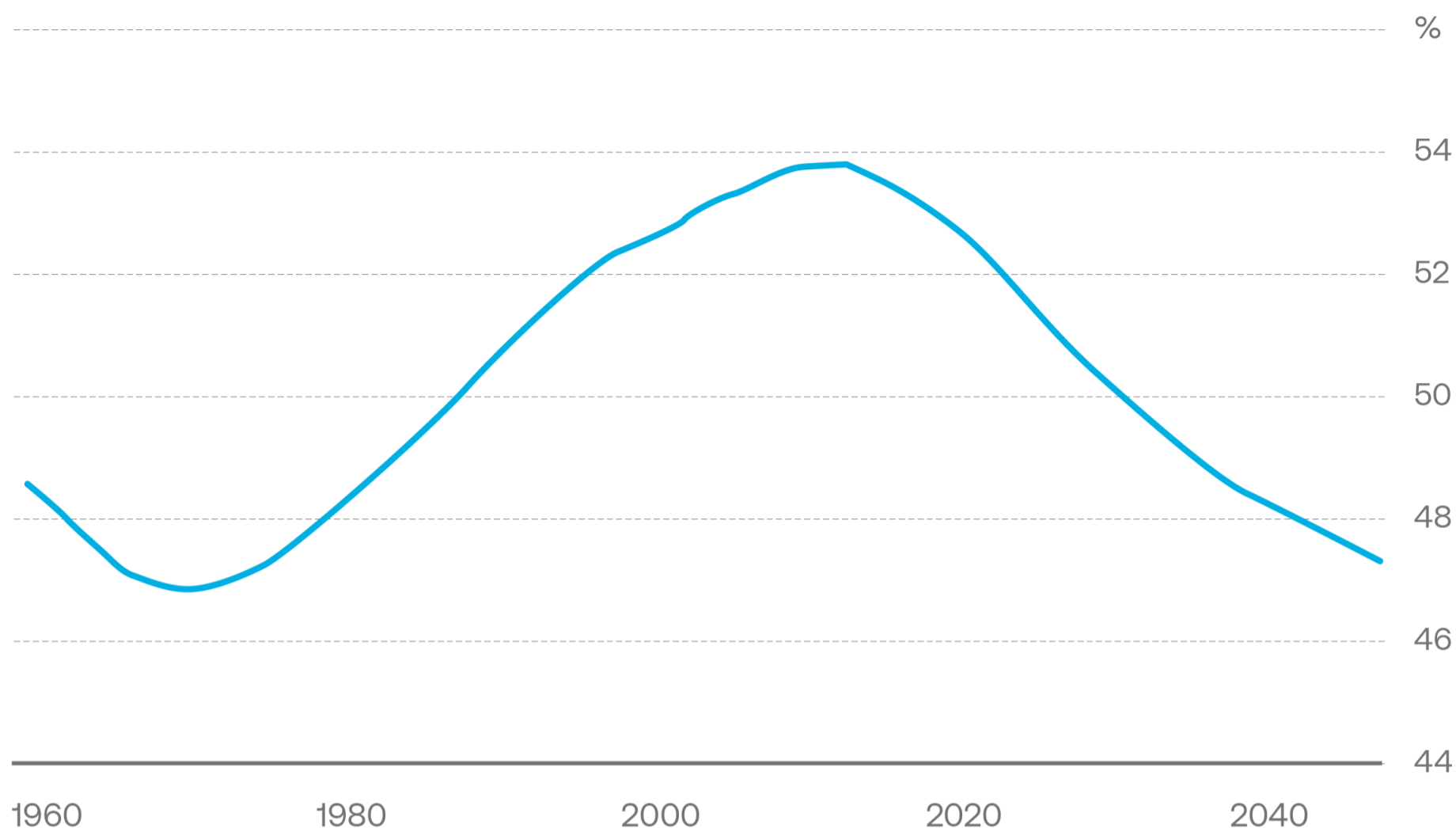
It is a well-known fact that the pandemic caused births globally to collapse and that they remain below levels necessary to stabilize population growth. We also know that aging populations place a major strain on pension and health care systems as fewer workers have to support more consumers and retirees.

This graph demonstrates that after rising steadily since the 1980s, the global support ratio, or the ratio of workers to consumers, peaked a few years ago and is projected to collapse to levels last seen during the 1970s.

“After rising steadily since the 1980s, the global support ratio is projected to collapse to levels last seen during the 1970s”

Global Support Ratio (Workers/Consumers) is Predicted to Collapse

Source: *BCA Research*



The news is filled with alarmist predictions of the “greying” of European, North Asian, and North American populations, coupled with their dire repercussions. After many years of failed government policy to boost fertility rates (e.g., China lifting its one-child policy), there is a sense among policymakers that there is not much that they can do to encourage people to have more children. Studies show us that as people retire, they save less and spend more. As the pool of global savings decreases, it places upward pressure on equilibrium real interest rates and bond yields. Faced with these prospects, governments are likely to further increase spending to encourage more childbearing. Permanent and/or larger fiscal budget deficits will similarly deplete national savings and push rates higher. These demographic considerations have underpinned one of our most recent fundamental investment calls, the end of the 40-year bond bull market. A major corollary of that thesis is that interest rates have begun a structural uptrend with successively higher highs and higher lows, although they will temporarily fall during recessionary periods.

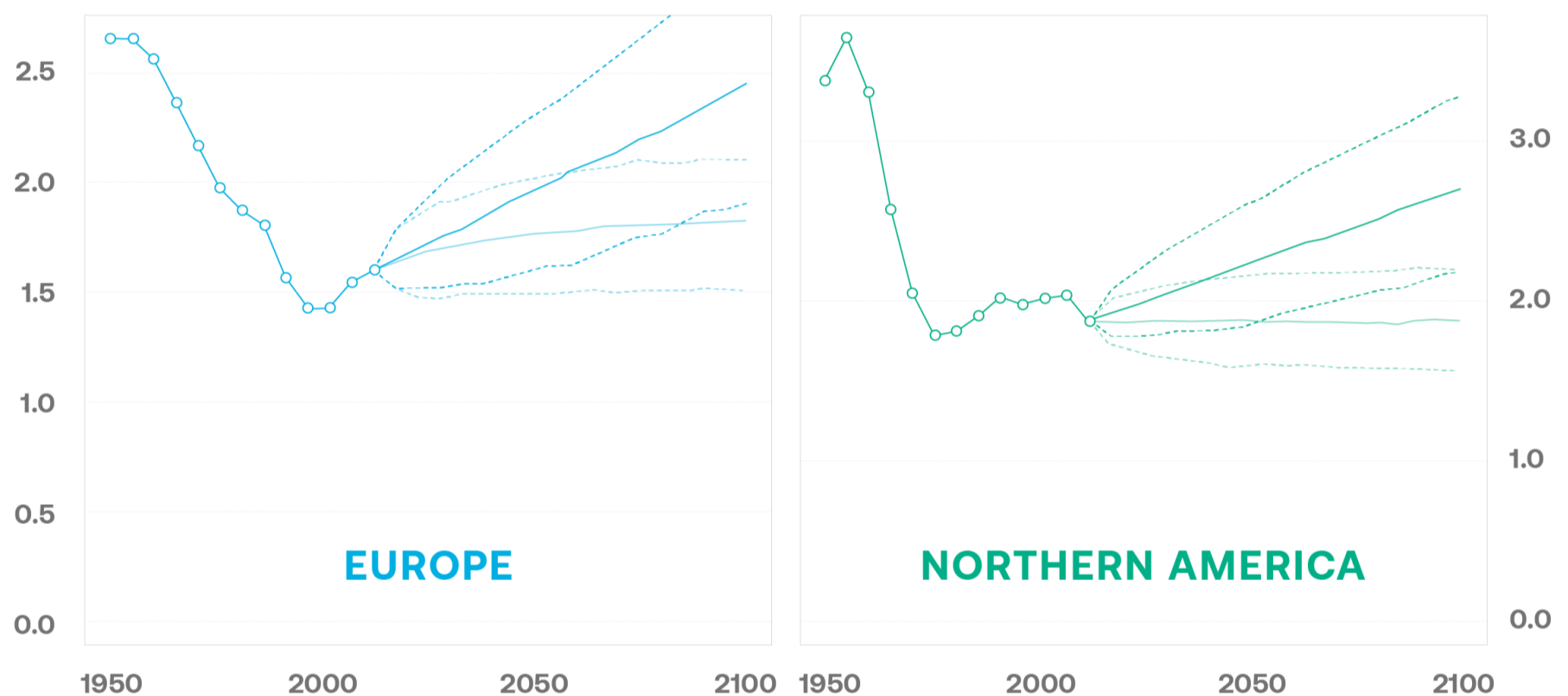
“The results of a 2019 study suggest that the global population will grow much faster than currently anticipated ”

But what if birth rates will eventually increase on their own despite government policy? What if global fertility rates, instead of further declining, may be bottoming and poised to rise sharply? A 2019 study in the journal of *Evolution and Human Behavior* by Jason Collins and Lionel Page suggests that our population modeling is incorrect because they use assumptions of constant long-term fertility rates. In their place, the authors

introduce a dynamic model incorporating inheritable fertility based on evolutionary biology. Rather than stabilizing around a long-term level for developed nations, fertility rates tend to increase as children from larger families represent a larger share of the population and partly share their parents' trait of having more offspring. In other words, both cultural and genetic evolution will select for families that wish to have more children. To further clarify, the desire to have more children is as inheritable as height or IQ. As cultural forces have suppressed fertility over the last few hundred years (really since the Industrial Revolution), an ever-growing proportion of people with a higher propensity to have more children will have children. When the environment changes so quickly (since the early 1800s, for example) that existing reproductivity strategies become suboptimal, natural selection responds quickly. Their results suggest that the global population will grow much faster than currently anticipated.

Natural Selection Pressures Could Increase Birth Rates if Fertility is Heritable

Source: Collins, J., Page, L., "The heritability of fertility makes world population stabilization unlikely in the foreseeable future," *Evolution and Human Behavior* (2019)



“European and North American fertility rates to rise to 2.46 and 2.67, respectively, above the global averages and against all conventional wisdom given current population modeling and projections”

In their model, without the inheritability effect, the global fertility rate declines to 1.82 by the end of this century, which is below the human replacement threshold. But once heritability effects are factored in, that rate increases to 2.21, well above the threshold. If true, this would have massive global policy implications from climate change to migration patterns to global conflict and even extraplanetary human settlement. And as this chart demonstrates, the effects are most pronounced in the two areas you would least expect: Europe and North America. Their model projects the European and North American fertility rates to rise to

2.46 and 2.67, respectively, above the global averages and against all conventional wisdom given current population modeling and projections. At a recent event, Elon Musk said, “if people don’t have more children, civilization is going to crumble.” He is right. Progress, technology, and network effects work better with higher “n” variables: the more people the better. But we might not have to do anything about it from a policy perspective as natural selection pressures might already be breeding out those of us less inclined to have children. As Dr. Ian Malcolm in Jurassic Park reminded us, “life finds a way”.



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Mr. Riesgo oversees all the company’s research and investment functions. This includes investment strategy, devising and implementing the firm’s global market views and asset allocation, communicating them to its clients and the public, and managing the firm’s model portfolios. In addition, he is the Chairman of the Insigneo Investment Committee.