

Demographics and innovation levels point to advantage for U.S large cap growth equities

Introduction

In a previously published paper, we discussed one of our industry's hottest topics – the "Al-Fueled Boom: Who Benefits". In the paper, we indicated that we would tackle a second topic that has garnered far less media and market attention, that of evolving global demographic trends.

In that paper we noted while these two topics may at first appear to be separate, we view them as intertwined. We believe both factors are likely to be key drivers for the global economy in general, the U.S. economy in particular and U.S. growth equities as an asset class.

Our research points to two key conclusions:

- We believe the U.S. is uniquely positioned for positive working-age population growth among current developed market economies due to better-than-peer birthrates and immigration trends.
- And we believe favorable demographics, along with advantaged positioning in innovation including Al and Generative Al, have helped drive the Russell 1000° Growth Index's dominant performance for more than a decade and are likely to remain intact, or even expand, in the years to come.

Demographic change is typically more evolutionary than revolutionary, certainly compared with other major influences on social and economic well-being globally, such as pandemics, civil and cross-national conflicts and technological change, and can also be more predictable.

Evolving global demographic trends

Ancient Greek philosopher Heraclitus is credited with the notion that the only constant in life is change. That has never been truer from a demographic standpoint. While demographics are slow moving over most investors' lifetimes, much is expected to change over the years to come.

Four of the 10 most populous countries in the world today will no longer be among the top 10 by 2100 – and all four will be replaced by rapidly growing nations in Africa.

Of the six countries that are projected to account for more than half of all the world's population growth by 2100, five of them are in Africa. By 2100 half the world's babies will be born in Africa, up from ~30% today!

Exhibit 1: Countries with largest population (M)

2020	
China	1425
India	1396
U.S.	336
Indonesia	272
Pakistan	227
Brazil	213
Nigeria	208
Bangladesh	167
Russia	146
Mexico	126

2100	
India	1530
China	767
Nigeria	546
Pakistan	487
D.R. Congo	432
U.S.	394
Ethiopia	324
Indonesia	297
Tanzania	245
Egypt	205

Asia Europe Africa

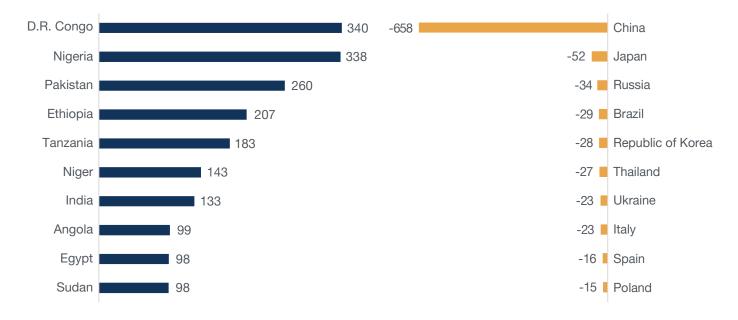
■ Latin America & the Caribbean
■ North America

Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Countries are based on current borders. In this data, China does not include Hong Kong, Macau or Taiwan. Regions follow United Nations definitions and may differ from other Pew Research Center reports.

Another way to think of Africa's demographic boom is to look at the 10 countries, out of more than 200 jurisdictions in the UN population data, that will experience the biggest gains and losses, both in absolute numbers and in percentage terms. Eight of 10 countries that represent the biggest projected gains are in Africa – Nigeria, the Democratic Republic of the Congo, Tanzania, Ethiopia, Angola, Niger, Egypt and Sudan.

By pure headcount, China is expected to lose 658 million people by 2100, a number almost double that of the 2022 U.S. population of 333 million. The Republic of Korea is expected to lose 28 million people, which is 54% of its 2022 population. These demographic trends drove India to replace China as the world's most populous country in 2023, four years earlier than was forecasted a mere five years ago.

Exhibit 2: Top 10 countries in projected population gain/loss by 2100 (M)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Countries are based on current borders. In this data, China does not include Hong Kong, Macau or Taiwan. Regions follow United Nations definitions and may differ from other Pew Research Center reports.

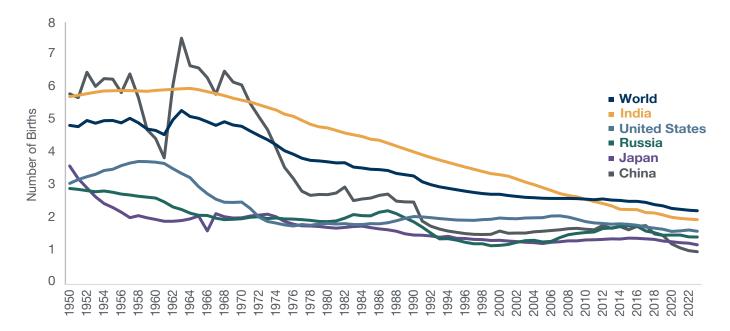
Aging replaces growth as the greatest demographic concern

The most onerous demographic challenge facing the world is no longer rapid population growth, but population aging. Current UN projections indicate an increase in the number of countries experiencing annual population decline, from 41 in 2022 to 88 in 2050 (with China included throughout)

These projections signal that population growth rates vary substantially across countries, income groups, and geographic regions. Growth trends disproportionately higher in low-income countries and African countries, while it trends disproportionately lower in middle- and high-income (with particular emphasis on high) countries as well as in European countries.

Population aging is becoming universally understood as the most imposing global demographic trend as fertility declines and increasing life expectancy is driving large cohorts of the population into older ages. In just over a century (1913 to 2022), global life expectancy has increased from 34 years to 72 years, dramatically altering population age structure and is expected to continue on this long-term trajectory. At the same time, between1970 and 2020, fertility decreased substantially in every major country in the world (Exhibit 3). When the United Nations and World Health Organization were established in the 1940s, there were seven times more children under the age of 15 than there were people 65 and older; by 2050, projections indicate that these age groups will be roughly the same size.

Exhibit 3: Fertility rate: children per woman



Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Data shown for the period 12/31/1950 (start of available data) to 12/31/2022.

Global fertility rates are rapidly declining, as birth rates in nearly every developed economy have now fallen below the replacement rate of 2.1 births per woman, which is the birth rate at which a population replaces itself from one generation to the next. Research indicates that the three primary drivers of this rapid decline are:

- Increased access to education and higher participation in the labor market for women,
- · Declining rates of child mortality, and
- · Increasing costs of raising children.

As a result, the global population growth rate, which peaked at 2.3% per year in 1963, is less than 1% today.

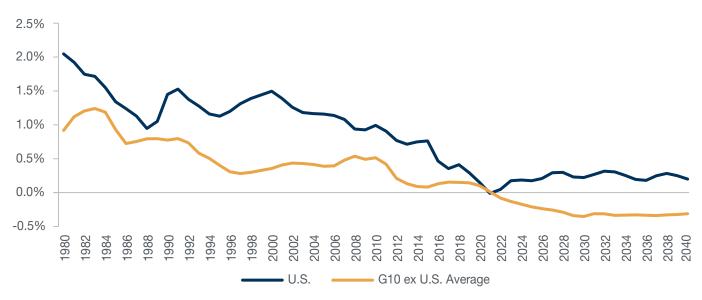
The economic impact of changing global demographics

Why are global demographics so important and how is this subject intertwined with the ongoing Al-driven productivity boom? In its simplest terms, economic growth is the product of the number of workers multiplied by the productivity of these workers. As a result, the ongoing decline in working age population growth of the developed economies is a drag on growth, absent any offsetting increase in productivity, highlighting the need for Al-driven efficiency gains.

In our prior paper we shared our viewpoint that AI productivity boosts are poised to skew meaningfully toward select economies and, further, that driven by the flywheel effect of elite universities, science and innovation investment and technological adoption, the U.S. ranks highest amongst innovative large global economies.

We believe that the U.S. is also uniquely positioned among all developed economies from a demographic perspective. While most major developed countries of the world entered negative territory from a working age population growth perspective in 2020 (Exhibit 4), the U.S. stood alone with working age population growth bottoming at a positive low point versus developed economies. Thus, the U.S. is uniquely positioned going forward to benefit from two tailwinds – a higher birth rate versus peers and a compelling position as a global beneficiary of immigration among the G10 countries.

Exhibit 4: Growth of working age population (20-64)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. G10 is defined as Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, U.K. and U.S. Data shown for the period 12/31/1980 (start of available data) to 12/31/2022. Data includes projected periods. Different assumptions could result in materially different results.

These factors are projected to result in the U.S. being the G10 economy forecasted to experience the strongest combination of material overall population growth and working age population growth in the 21st century.

Summary

- Global demographic trends that have been decades in the making, and would take decades to alter, are poised to materially change the world that investors have known and lived in – and we believe the U.S. is uniquely positioned to benefit from these evolving trends.
- While lower global working age population growth as a whole will likely lead to lower global GDP growth, the U.S., supported by its favorable relative positioning both demographically as well as from the current Aldriven productivity boom, is well positioned to maintain and very likely expand upon its current leadership positioning versus the other key economies of the world for decades to come.

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