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Exploration of Population Trends, Population Drivers, and Economic Impact

For hundreds of years humanity has seen a constant and rapid yearly increase in global population. Since the 1700’s the world has experienced a rapid growth in population (HYDE Database). This population growth has only accelerated since the advancements in food production brought about by the industrial revolution. However, this incredible population growth may be reaching its zenith at the end of the 21st century (United Nations). Some countries such as Japan have already seen this prediction of population stagnation become a reality with Japan’s total population decreasing for the past decade (World Bank). Not only is global population growth slowing but the demographics of the world’s population are rapidly shifting.

The median age of any given human on earth has also been increasing year over year, the median age of a human on earth has been increasing by more than a year every five years. (United Nations), the world’s population growth is slowing and as a result the world’s total population is also *aging.* What are the demographic trends countries face today? What are the drivers of population growth and population stagnation? What economic implications and impacts could a shift in a countries demography and population have on its economy? Finally, what impact will these changes bring to a country’s economic growth?

**Demographic Trends**

The coming trend of an aging world population can be compared today. While the world as a whole still experiences population growth certain societies have already reached their population peak, Japan is one such country. Japan has faced a population decrease for the past ten years while the United States has experienced a population increase for the past ten years (World Bank). If we create a population pyramid which breaks down a country’s population into categories of sex and age we can view how population demographics within a country change over time. With this we can visually see what occurs to a countries demographics when population growth slows and eventually reverses. Using census data from the Statistics Bureau of Japan we can construct population pyramids that tell the story of shifting demographics over the past two decades.

Chart, bar chart

Description automatically generated

Data Source: Statistics Bureau of Japan 2000 Census

Chart, bar chart

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Data Source: Statistics Bureau of Japan 2010 Census and National Institute of Population and Social Security research

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Data Source: Statistics Bureau of Japan June 2021 Population Estimates

Looking at these population pyramids we see two distinct groups, two large generations. The elder generation born in the wake of WWII, a post war baby boom. This elder generation is followed by a second boom in population a result of members from the first baby boom having children of their own. However, as this second large generation reaches adulthood there is no third boom in population growth. Instead, birth rates have been on a steady decline since, and now as the generation born post WWII reach the end of their lives they far outnumber the younger generations in Japan. So much so that Japan’s population is now in decline. How do these demographics compare to a country which has experienced a steady growth in population? Pulling data from the US Census Bureau we can also create population pyramids of the United States over the past two decades.

Chart, bar chart

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Data Source: US Census Bureau 2010 US Census

Chart

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Data Source: US Census Bureau 2010 US Census

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Data Source: US Census Bureau 2019 US Age & Sex Demographics

Looking at the change in US demographics over the past twenty years we see a somewhat similar trend in demographics when compared to Japan. Two distinct and large generations the baby boomers and generation Y followed by a steady decline in the number of younger individuals. It should be noted that the declining size of the youth population in the United States is happening at a much slower pace compared to Japan’s massive drop-in birth rates. But if no large baby boom follows generation Y the United States could have a comparable age demographic as the one which Japan is currently experiencing sometime later this century. Is there a potential economic force behind these shifting demographics, what drivers could be pushing population change in these countries and the rest of the globe?

**Economic Drivers of Population Change**

**Economic Impact of Demographic Change**

**Mitigation Measures**

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