



U.S. Demographics Not All Doom and Gloom

Key Takeaways

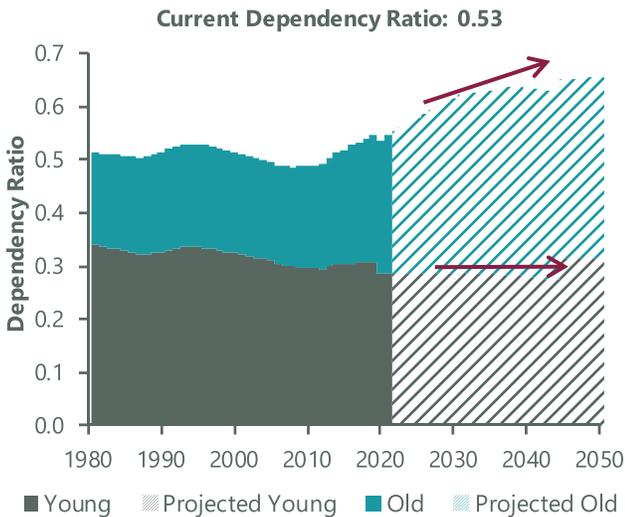
- ▶ A growing middle-age population in the coming two decades should support equity markets as the millennial generation enters its peak economic and investment years.
- ▶ The aging of the baby boomers was an underappreciated reason for slower economic growth following the global financial crisis. While their retirement will continue to be an economic drag for years to come, the rise of the millennials should more than offset this.
- ▶ The MY ratio, which measures the size of the middle age relative to young adult populations, has historically moved closely with the long-term trend in equity markets and is currently near a positive inflection point.

Graying of America – Boomers Retire

There's a simple saying in the world of economics: "Demographics are destiny." Although they move at a glacial pace, demographics are an often-overlooked aspect of a country's long-term growth potential and capital markets performance. Specifically, the age makeup of the population tends to act as a regulator on economic growth rates. Demographic profiles across the developed world have meaningfully deteriorated since the turn of the 21st century, and few believe the trend can abate, let alone reverse. While this may be true for many regions, the demographic backdrop of the United States may ultimately prove more resilient than initial projections imply.

Conventional wisdom holds that demographic trends will be a headwind for the U.S. economy, and by extension financial markets, in the coming years. More specifically, GDP growth should slow as the baby boomer generation increasingly exits the workforce. However, a closer evaluation of demographic data suggests there is more to the story. While the graying of America has been a headwind to economic growth over the past 15 years, the coming two decades should see more of a benefit from demographic changes as the millennial generation enters its peak period of economic activity.

Exhibit 1: Young Dependency Ratio vs. Old Dependency Ratio



Source: Census Bureau and Bloomberg. Note: Census Bureau Forecast is based on 2017 National Population Projections. Current ratio is a 2020 estimate based on 2017 projections.

Typically, demographers (and economists) focus on the dependency ratio, or the proportion of the non-working-age population — both the young (age 0-14) and old (age 65+) — relative to the working-age population (15-64). A high dependency ratio signals a greater share of non-workers (dependents) that need to be supported by the working population. Higher dependency ratios are frequently associated with slower economic growth, as some resources that could otherwise be invested, and in turn drive future growth, are instead reallocated toward providing for dependents.

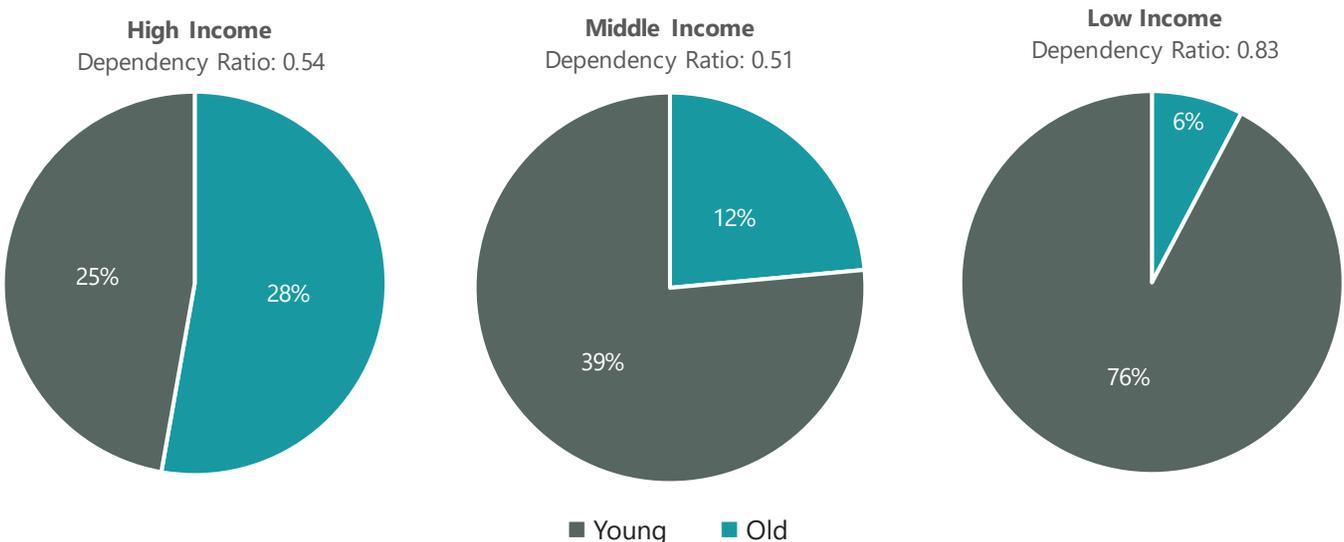
Dependency ratios can rise or fall for several reasons, each with unique implications. A high dependency ratio driven by a larger share of the older population is very different from one driven by a larger young population. In the U.S., dependency ratios are expected to increase from 0.53 currently to over 0.65 in the next 15 years, primarily because of the increase in the 65+ population (Exhibit 1).

This “graying” of America is well-understood, and a similar picture exists across many other developed markets, particularly in Europe. By contrast, emerging markets (EMs) tend to be low-income economies with higher overall dependency ratios primarily driven by large young populations (Exhibit 2). This dynamic supports the general expectation that EMs are poised to see more favorable economic growth than developed markets in the coming years.

Millennial Generation Nearing an Inflection Point

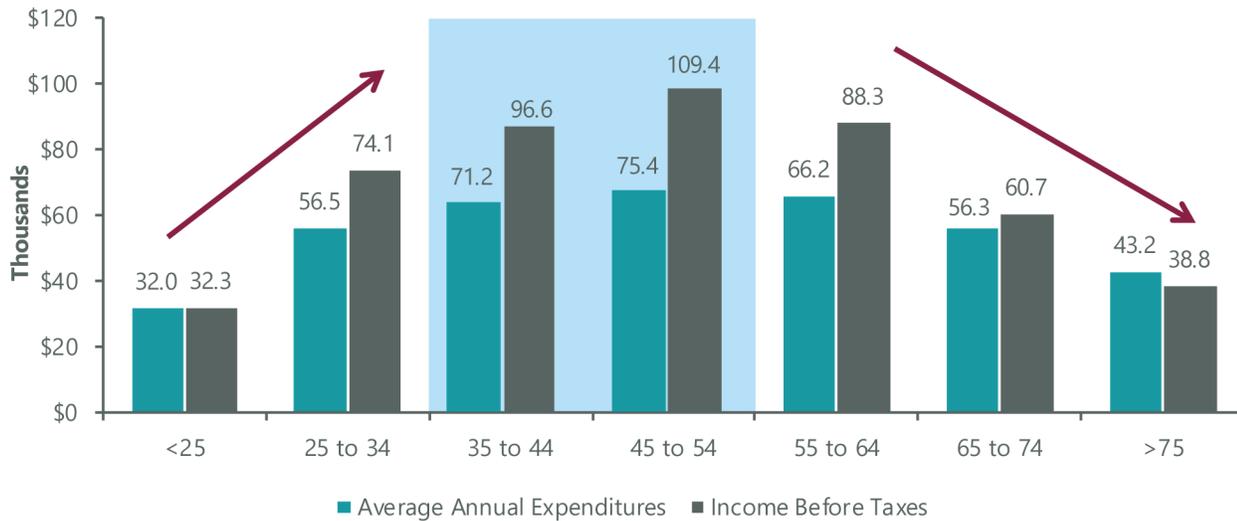
Just as breaking down dependency ratios into those driven by larger older or younger populations can be illustrative, so too can breaking down the working-age population. One framework for this divides the working-age population into three groups: young adult (20–34), middle age (35–49), and late career (50–64). Typically, as workers move through their young adult and middle-age periods, they tend to both earn and spend more money (Exhibit 3). More experienced workers are able to deliver greater value or their expertise leads to productivity increases, meaning they can command

Exhibit 2: 2019 Dependency Ratio Breakdown: Old vs. Young for High/Middle/Low Income Economies



As of December 2019. Source: World Bank.

Exhibit 3: The Earnings and Spending Lifecycle - U.S. Consumption by Age (2018)



Data as of September 2019. Source: Consumer Expenditure Survey, U.S. Bureau of Labor Statistics.

higher salaries. At the same time, they often start families and purchase homes, incurring increasing expenses over these years.

As individuals hit their mid-50s and enter their late-career phase, they typically see a shift in their spending and earnings. Usually, expenses drop as children move out

The millennial generation is 6.9 million people larger than Gen X, meaning the crucial middle-age cohort will be increasing in size for years to come.

of the household and mortgages are paid off. At the same time, aggregate earnings fall because some workers begin to retire early or reduce their hours by working part time, which more than offsets continued wage gains for those that continue to be

employed full time. The result is individuals at this phase start to spend and earn less.

A natural outcome of this progression is that savings also tend to follow a pattern over the course of an individual's life. Savings typically start out small and rise throughout the young-adult phase. They often peak during middle age and then decline during the late-career phase. When the worker retires, savings are drawn down to fund retirement.

Given this dynamic, it is perhaps unsurprising that the middle-aged tend to be the largest source of incremental investment capital. Individuals at this age are much more likely to participate in equity markets, with 2018 Gallup polls suggesting that only 37% of the young-adult cohort own equities compared to 61% of those over the age of 35 (Exhibit 4).

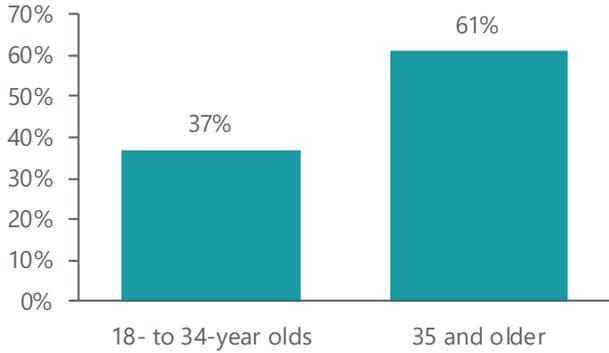
Demographic Destiny – Weaker Aughts, Roaring 20s

From an economic and financial market perspective, the middle-age years can be thought of as “peak” in terms of earning, spending, and saving (investing). History supports this view, with superior economic growth and market returns during periods where there was an outsized share of middle-age people. The reverse also holds, and the demographic headwind facing the U.S. following the Global Financial Crisis (GFC) might be the most underappreciated reason for weaker economic growth during the last decade.

By 2009, U.S. demographics had turned decidedly unfavorable, with the boomer generation moving into its late-career phase (Exhibit 5). Generation X, following the baby boomers, is a much smaller generation, with approximately 9.4 million fewer people in 2009. This meant that in each year, several million boomers were moving out of middle age and being backfilled by fewer Gen X-ers, which drove a steady decline in the share of the population in their peak economic years. A second demographic headwind came from record numbers of baby boomers entering retirement, a period consistent with dramatically lower spending requirements. While the excesses and overhangs of the prior cycle certainly played a role in the sluggish economic growth following the GFC, the unfavorable demographic trend was an equally important and far less appreciated contributor.

Looking at the present and what demographics imply for the coming decade; the picture could not be more different than it was following the GFC. While

Exhibit 4: U.S. Stock Ownership by Age - 2018



As of December 2018. Source: Gallup.

the boomers will continue to weigh on economic growth, the overhang should be less substantial, with over 40% of the boomers having already reached retirement age by 2019 (and nearly 45% rolling forward to today). More importantly, the millennials are just now beginning to enter their peak economic years and will continue to do so over the coming decade. The millennial generation is 6.9 million people larger than Gen X, meaning the crucial middle-age cohort will be increasing in size for years to come.

The current demographic backdrop is not too dissimilar from the mid-1990s. At that time, the boomer generation was at a similar place to the millennials of today: just beginning to enter its peak economic years. As these individuals took over from the smaller Silent Generation before them, GDP averaged 3.4% over the next 10 years even with the bursting of the tech bubble and 9/11 (and 3.9% excluding those recession-impacted years). With

a similar dynamic in place today as the larger millennial generation takes over the middle-age cohort from the smaller Gen X, economic growth should see a lift over the coming decade and beyond. The magnitude may be dampened somewhat relative to the mid-1990s given the greater share of retirees today (Exhibit 6).

The MY Ratio Supports a Strong Era for Equities

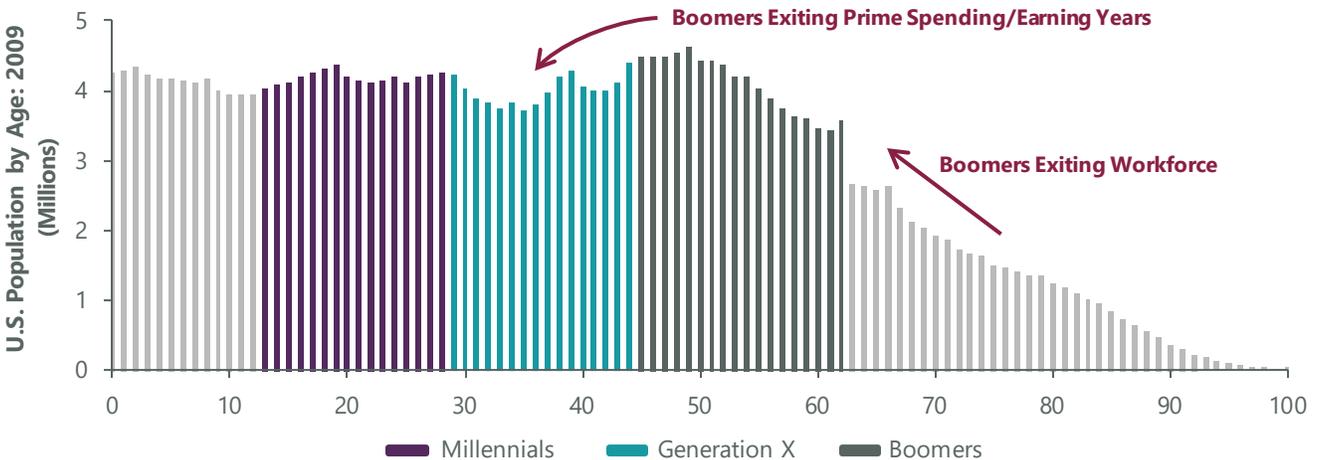
Academic research supports the notions laid out above, with an emphasis on the relationship between the middle-age and young-adult populations being the most important dynamic for equity investors.¹ The so-called MY ratio (middle age relative to young adult) has been shown to have an influence on equity valuations (price/earnings ratios), rates of return and equity risk-premiums in the U.S. and globally.

Building upon this work, we examined how changes in the MY ratio over the span of a typical generation (16 years) influence equity returns over the corresponding period, with encouraging results. Exhibit 7 shows how the change in the MY ratio has historically had a very strong relationship with the long-term trend in equity returns. Perhaps even more encouragingly, the MY ratio is poised to become much more favorable in the coming years as the larger millennial generation enters the higher saving/investing middle-age years while the smaller Gen X exits into its late-career phase.

History also shows that periods with a higher level of the MY ratio (as opposed to periods of greater change in the ratio) have corresponded with higher valuation regimes.

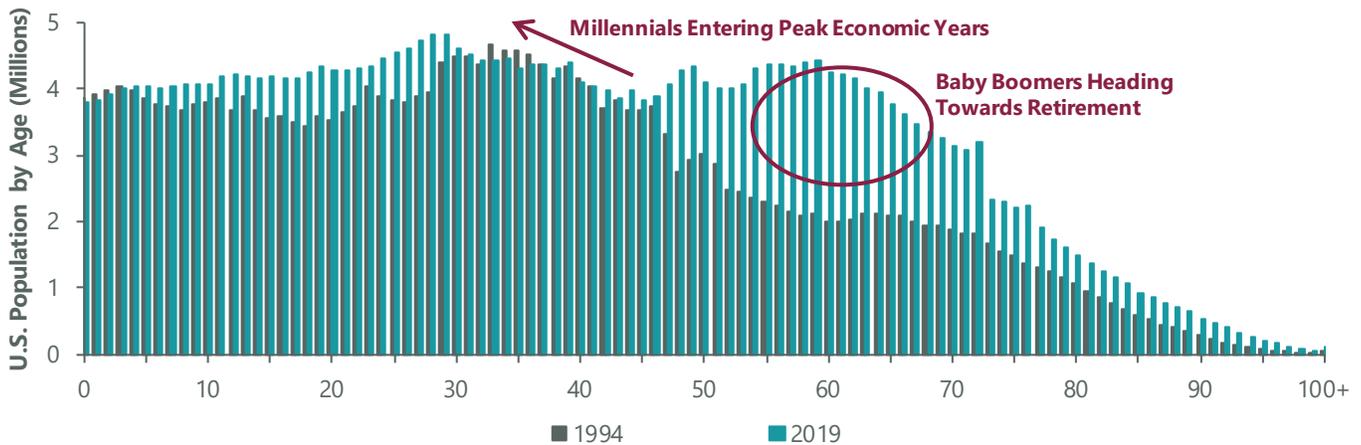
¹ Geanakoplos, Magill, Quinzii. "Demographics and the Long-Run Predictability of the Stock Market." Brookings Papers on Economic Activity. 2004, No. 1.

Exhibit 5: 2009 Demographic Headwind



Source: U.S. Census Bureau.

Exhibit 6: 2019 Demographic Tailwind Similar to 1994



Source: U.S. Census Bureau.

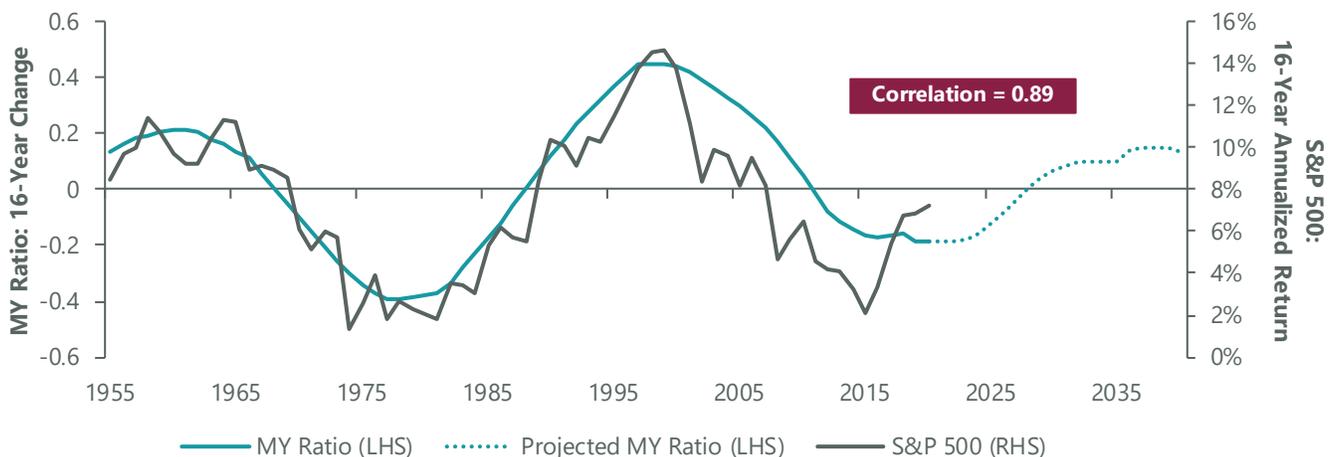
With the level of the MY ratio already above long-term and post-World War II averages, equity valuations (which are also above historical averages) might be better supported both today and over the coming decade than is commonly believed.

Finally, the MY ratio is not just a domestic phenomenon. Japan, often the prototypical case study for demographics research and analysis, has experienced a somewhat similar trend. The MY ratio for Japan was improving in the mid-1970s and peaked in 1990, coinciding with a strong run in Japanese equities. The so-called “lost decade” for Japanese stocks aligned with a period that saw a declining MY ratio. Since 2005, the Japanese MY ratio has been improving, and the Nikkei has performed better (Exhibit 8). Importantly, Japanese equities have underdelivered relative to what the MY ratio would suggest over the last decade or so, perhaps due to the uniquely large number

of elderly people in Japan. Typically, older investors have a greater preference for fixed income relative to equities given the stage of the investment lifecycle they are in, meaning there has been less domestic demand for Japanese equities in recent years.

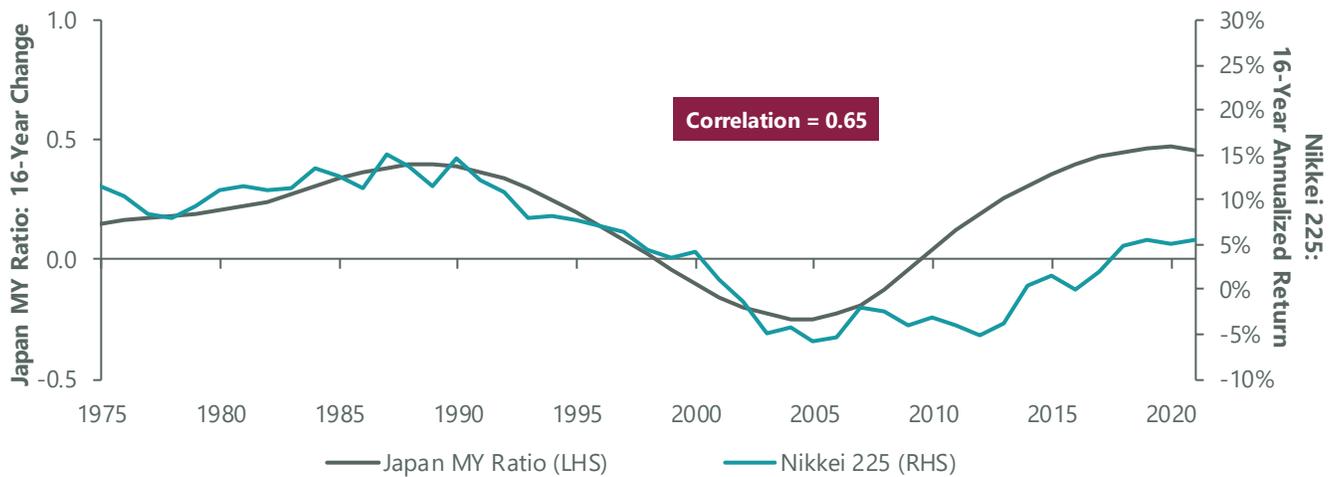
While this could indicate that U.S. investors should temper their optimism about the MY ratio, the demographic situation in America is far more positive than in Japan, which has a higher overall dependency ratio (0.68 versus 0.53) than the U.S.. Further, Japan’s 65+ cohort drives nearly 70% of the overall ratio (0.47 of the 0.68) versus just half in the U.S. (0.25 of 0.53). Japan’s demographic crisis is more pronounced than in the U.S. and further evolved, meaning that any potential undershoot here in the coming decade is likely to be less severe than what Japan has experienced.

Exhibit 7: Middle vs. Young (MY) Ratio - Demographics Foreshadow Equity Returns (Over 16 years)



Source: Census Bureau, S&P, and Bloomberg. Note: Census Bureau Forecast is based on 2017 National Population Projections. Current change in MY ratio is a 2020 estimate based on 2017 projections.

Exhibit 8: Japan MY Ratio vs. Nikkei 225



Source: United Nations World Population Prospects 2019, Bloomberg. Current change in MY ratio is a 2020 estimate based on 2019 projections.

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