How the digital revolution and millennials will keep driving the secular bull

Federated believes we are in the midst of a third major industrial revolution—the digital revolution. The first transformed an agrarian economy into a manufacturing-based economy; the second transformed a manufacturing-based economy into a service-based economy. Version three is bringing an analog economy into the digital world, and already it is profoundly affecting the way we live, work and conduct business. This digital revolution shares many characteristics with its two predecessors:

- **Technological progress** By their very definition, industrial revolutions are the product of technological innovations that change the way economies operate, making them more productive. Manufacturing was aided by the steam engine; the shift toward services was driven by improvements in communications and early information technology. The current revolution is being driven by six complementary technologies—automation, artificial intelligence, robotics, the internet-of-things, blockchain and 3D printing.

- **Changing social contract** Prior to the first industrial revolution, roughly 72% of the American workforce was employed in agriculture. The social contract at that time was for couples to have relatively large families—the fertility rate ranged from 6-7 births per woman—with all members of the family working the land as a unit. As the country industrialized, this social contract eroded. By 1940, only 22% of the workforce was employed in agriculture as the majority of the U.S. population shifted to urban centers. In the new urban environment, family size shifted from being an asset to an expense, with the fertility rate plunging to 2 births per woman. Today, we are once again seeing an eroding social contract as the days of marrying your high school sweetheart, working your entire adult life for the same company, receiving regular salary increases and a pension, and retiring at 65 are long gone, disrupted by technology, offshoring and aging entitlement programs. Younger generations are flocking to cities, where the bulk of "New Economy" jobs that are driving the digital revolution are being created.

- **Wage inequality** During industrial revolutions, income inequality tends to increase, as very few are truly prepared for the newly emerging economy, save the leaders and early adopters who tend to benefit the most, resulting in the establishment of a super class. Think of the so-called robber barons of the early 20th century—the Carnegies, Mellons, Rockefellers and Vanderbilts. Today, it's Bezos, Gates, Musk and Zuckerberg. According to University of California economist Emmanuel Saez, the top 1% of the nation's wage earners captured 22% of income in the United States in 2015, a level just shy of what the top 1% of earners captured in the early part of the 20th century when the country was emerging as a manufacturing powerhouse. It took the establishment of a new social contract, built around organized labor and social safety-net programs, to lower that top 1%'s share of income to less than 10% of the total by the middle of the last century, with the benefits of the then-new economy distributed more diffusely throughout the population.

What's next for workers and businesses?

Historically, technological progress has created new industries, increased employment opportunities, improved productivity and helped push standards of living higher. We expect that same process to play out in the digital revolution and do not subscribe to the widely shared thesis that all technological breakthroughs and adaptations will lead to mass unemployment. While half of the activities that people engage in at work can be automated with currently demonstrated technology, McKinsey and Co. estimates that less than 5% of all occupations can be completely automated.

We do expect wages to continue to be under pressure in the near term, as technology initially pushes down the demand for labor before new employment opportunities are created. This is a continuation of a trend that has been in place since 1973. Prior to that period, wages and productivity generally moved in lockstep. But between 1973 and 2013, productivity grew 74.4% while hourly compensation grew just 9.2%, falling from nearly 50% to just 42% of GDP.

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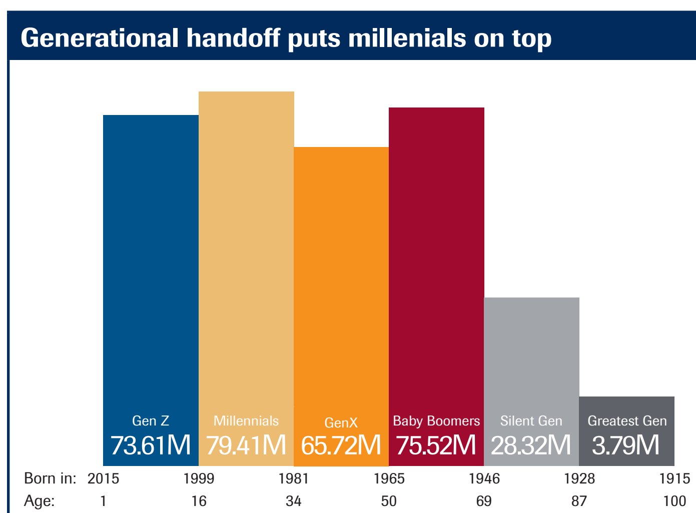
While wages remain under pressure, corporate profits should continue to benefit from lower labor costs and efficiencies brought on by automation. Since 1973, S&P 500 profits have tripled and overall corporate profits have doubled as a share of GDP. We expect this upward push on profits will accelerate as productivity gains materialize, understanding of course that inevitable recessions will present challenges and down periods along the way. Because of the typical lag between the introduction of a new technology and its peak impact on productivity, it will take time for all the ongoing digital changes to show up. To wit: while the first personal computers hit the mass market in the early 1980s, peak productivity growth from the PC era didn't materialize until the 1995-2005 period.

As large companies automate and standardize, we expect employment will shift toward small businesses that offer more customized goods and services. This already is apparent in the beer industry, where the number of large macro brewers has shrunk considerably over the past few decades. Thanks to consolidation and automation, a few giant brewers still control 87.5% of the market. But craft brewers keep gaining ground—they're growing in number at a rate of 20% per year and now employ more than half of the brewers in the U.S., according to the Brewers Association. Similar patterns can be seen in other industries, including financial services.

Where do millennials fit in?

Just as this digital revolution is taking hold, the U.S. is in the midst of a generational handoff, as the millennials (those born between 1981 and 1997) overtake the baby boomers (1946-1964) as the largest generational cohort of the U.S. population. There are roughly 79.4 million millennials, slightly edging out the 75.5 million boomers. While immigration is expected to swell the ranks of the millennials to a peak of 81 million by 2036, the Pew Research Center says aging boomers will decline in size, ultimately to be surpassed by Generation X (1965-1980).



Sources: U.S. Census Bureau

Millennials almost certainly will come to dominate the cultural, economic and political landscape of the U.S. going forward—their impact already is being felt, as their comfort with using all things tech have helped to drive the adoption and expansion of new technologies in all aspects of work and private lives. They also will soon come to dominate the workplace; it's projected they'll grow to represent 75% of the labor force over the next 15 years, just as this digital revolution takes hold.

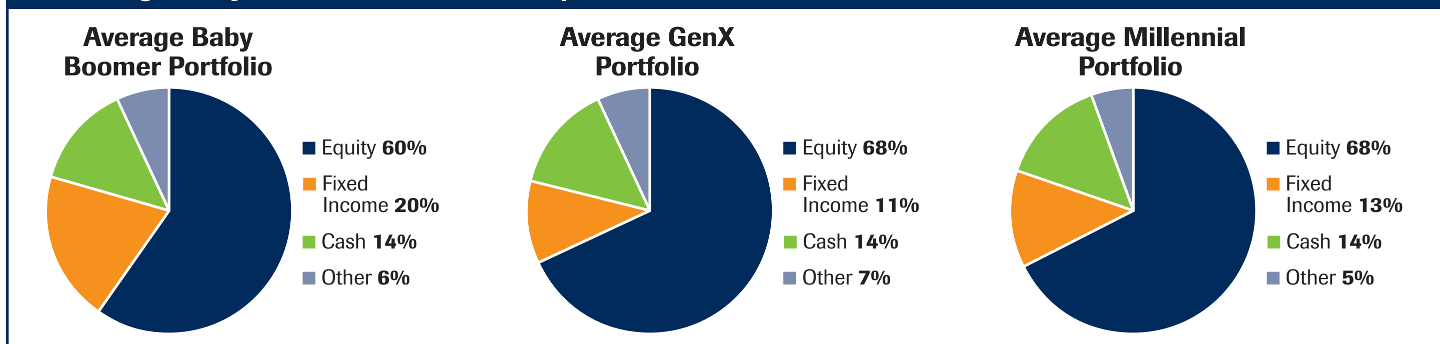
Debunking millennial myths

Though much maligned, millennials represent the most educated and racially diverse generation in American history. Financially, they have lagged behind prior generations, plagued by higher student loan debt, stagnant wages and poor job prospects in the aftermath of the Great Recession. The generation is often characterized as shiftless, entitled and generally irresponsible—stereotypes that demand re-examination.

- **Millennials are drowning in debt:** While millennials have the highest amount of student loan debt—a Wells Fargo study puts their median education-related debt at nearly $20,000—they are not the most indebted generation overall. That dubious distinction actually goes to GenX, mostly as a result of mortgage debt. Unlike prior generations, millennials eschew credit cards and—student loans aside—continue to pay down debts. Aided by the historically low interest rates in the post-crisis era, their total debt service payments comprise just 9.91% of disposable personal income. Perhaps moving back in with Mom and Dad wasn't such a bad idea.
- **Millennials are unable to save:** Contrary to popular belief, millennials are avid savers. In fact, millennials save 36% more of their annual salary compared to prior generations, with more than a third saving 20%-plus of their annual salary. Nearly 1 in 6 millennials currently have $100,000 or more in liquid assets. That said, the nature of the savings is different. A Merrill Lynch study found millennials are more likely to save to achieve a desired lifestyle but less likely to save for retirement.
- **Millennials don't like equities:** Having come of age during the Great Recession, millennials have tended to identify as conservative investors. An AMG Funds study from a couple of years ago noted that millennials allocated only 30% of their portfolios to equities, lower by nearly a third relative to prior generations. As millennials come of age, marry and have children, the corresponding financial obligations are pushing them toward more aggressive portfolios. Millennials between 26 and 35 are far more likely to invest (44%) than those between 18 and 25 (18%), a BankRate survey says. This likely will accelerate, as the peak birth year of the millennial generation was 1990, meaning that the bulk of the generation will turn 30 in 2020. Millennials did, however, get a later start to investing, given the aftermath of the Great Recession and their student debt burdens.

This later start will mean they will require a higher rate of return on their investments to meet retirement goals. This already is being reflected in surveys that suggest millennials expect to take on more investment risk, have significantly higher long-term average annual return expectations for their portfolios, and have already shifted to a more aggressive asset allocation versus prior generations.

Debunking the myth - Millennials DO like equities



Source: Morningstar, Inc.

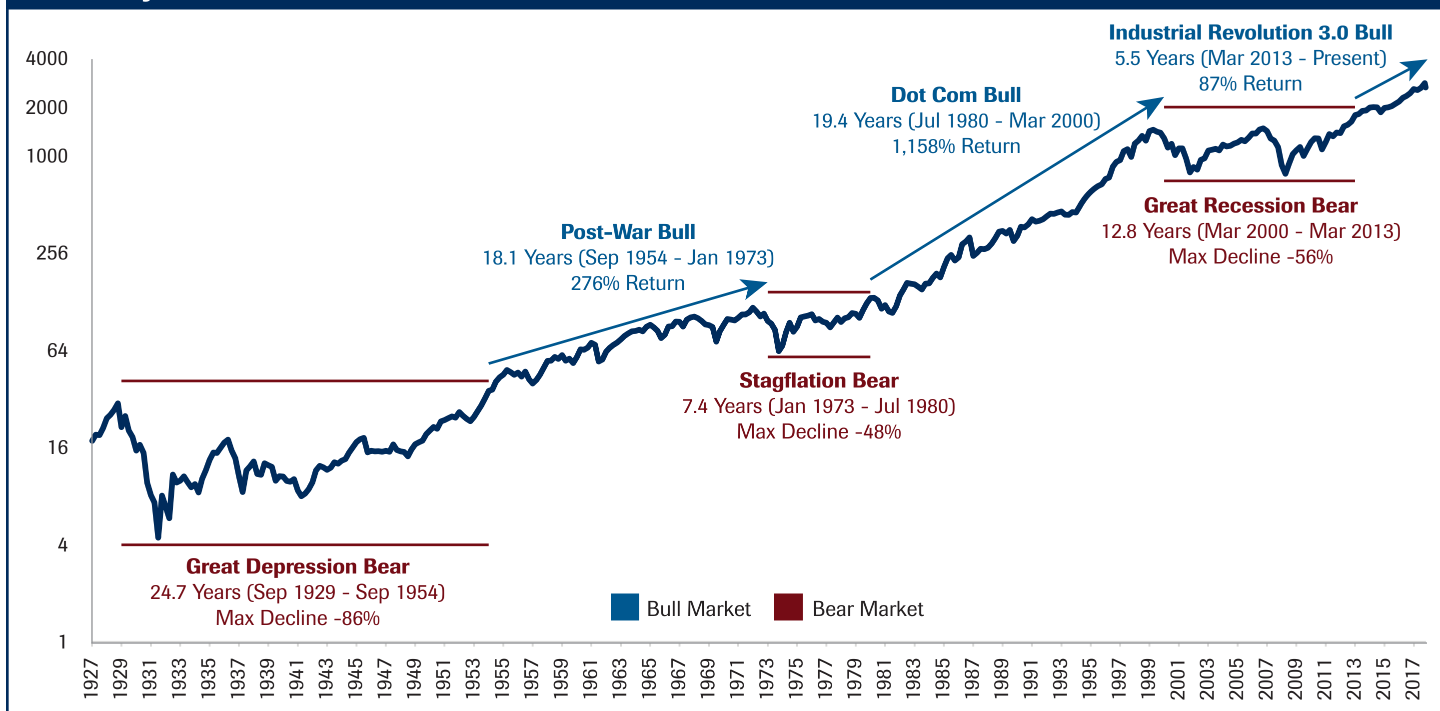
- **Millennials lack ambition:** While millennials differ from prior generations in their preference for experiences over goods, their later start to family formation and their appetite for avocado toast, they maintain many traditional life goals. Some 94% of millennials would like to buy a home in the future and 75% want to live in the suburbs, according to a GenFKD survey. Importantly, when it comes to business, millennials may prove to be the right generation at the right time. According to the U.S. Chamber of Commerce, one-half to two-thirds are interested in entrepreneurship, 27% already are self-employed, 44% feel that the government stifles small business and 83% want the government to promote entrepreneurship. This predisposition toward entrepreneurship is quite encouraging given our view that employment opportunities are likely to shift from large companies to small businesses.

A secular bull market

We define a secular bull market as a long-term upward trend in the equities, where the market consistently achieves higher highs and higher lows. This contrasts with a secular bear market, where equities are unable to surpass their prior peak.

In our view, the secular bear market doesn't end at the market trough, but instead ends when the market is able to significantly and permanently surpass its prior peak. Based on this definition, we observe the following secular cycles over the last 90 years:

The history of the bull and the bear



Source: Morningstar, Inc.

Secular bull markets generally last 18-20 years, which is much longer than the traditional definition of a cyclical bull market. To be clear, though, secular bull markets are not uninterrupted rallies. At least one recession occurred during each of the last two secular bull markets; both had three declines of 20% and one decline of 30%; but neither saw a drawdown of 40% or more. Importantly, the losses from these drawdowns were recouped in a relatively short period of time, two years or less. By contrast, peak drawdowns during secular bear markets took a decade or more to recoup.

We contend that in 2013, we entered a new secular bull market, which will ultimately be characterized by the interaction between the emerging millennial generation and the technological progress of the digital revolution.

In the simplest form, the value of an equity market is determined by earnings per share of the constituent companies and the price the market is willing to pay for those earnings—that is, the price-earnings (P/E) multiple. Earnings, in the long run, are driven by technology. We foresee higher profits driven by more efficient production, lower labor costs and easier access to global markets driven by technological advances. We also expect a wealth of small business creation.

The multiple, in the long run, is driven by demographics. We expect that the country's largest generation, with a higher-than-average saving rates but lower-than-average debt levels, will seek higher rates of return on their savings, especially given their later start to investing. Simply put, with fewer years of compounding available, higher returns will be required, and if technology continues to put pressure on wages, capital gains will be needed to supplement income. We, therefore, expect that as millennials form families, they will reallocate their portfolios towards equities, pushing the multiple higher. This effort may be compounded by a massive transfer of wealth, estimated to be some $30 trillion, from the baby boomers to their GenX and millennial heirs may also be reallocated to reflect the longer life span of the recipients.

Put it all together and the case for stocks for the long run remains as strong as it ever was.

Views are as of 9/7/18, and are subject to change based on market conditions and other factors. These views should not be construed as a recommendation for any specific security or sector.

Past performance is no guarantee of future results.

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