the 9:05 Bailard's Quarterly Review of Economic and Market Developments* Q3 2019

Celebrating 50 Years of Bailard and the Values that Bring Us Together

As we enter the last quarter of 2019, we mark the end of an exciting 50th year for Bailard as a firm. This milestone has provided an opportunity to reflect on what exactly makes Bailard unique and what makes our relationship with our clients so special. We believe the thread that has tied us together through the years has been a set of values that we share; we are proud that often our employees and clients unite through these common values. So, this year, we put pen to paper to articulate exactly what these core values are, and we winnowed to six: accountability, compassion, courage, excellence, fairness, and independence. Each of these values have shaped our business in different ways, from how we interact with our clients and how we have grown as a company to how we engage as a team, day in and day out.

*We practice independence by being a truly independent firm in our thought and counsel, and striving to keep our business employee-owned. We believe this preserves our culture and enables us the freedom to pursue the best opportunities and to remain true to our values. We hold a strong commitment to excellence in service of our clients, recognized by both strong client retention rate of 98% over the past five years as well as industry accolades (we have been named by the Financial Times as one of the top RIAs for three years running, and this quarter we were named one of the Top 100 Financial Advisors by CNBC).**

We show courage through continually learning and growing. While Bailard's beginnings focused on financial planning, later endeavors like introducing international investments, private real estate or, more recently, sustainable, responsible and impact investing each represented a new course for the company. Championing ideas and bringing them to fruition—doing things the right way, or a new and better way—always takes courage.

Compassion is another value we hold close in our role as our clients' trusted advisors, aiming to be more than just a portfolio manager. This compassion has been at the root of our company since its founding in 1969, and our employees have a rich history of community involvement. Compassion also served as a driving force in the creation of the Bailard Foundation that we launched this year under the mission to do good in the communities where we live, work, and engage. We remain committed to our values and are exercising accountability by putting our money where our mouth is. It's only fair that we practice what we preach!

We are humbled to look back at the journey that has brought us here today. And, importantly, we want to thank you for placing your trust in Bailard. We look forward to another 50 years of opportunities and adventures.

Peter

Peter M. Hill
Chairman and
Chief Executive Officer

Sonya

Sonya Mughal, CFA
Executive Vice President
Chief Operating Officer, Chief Risk Officer

ACCOUNTABILITY

COMPASSION

COURAGE

EXCELLENCE

FAIRNESS

INDEPENDENCE

*Please see important disclosures on page 19.

The Global and Financial Impacts of Changing Demographics

In this quarter's Chat with the CIO, Eric P. Leve, CFA (Bailard's Chief Investment Officer) discusses the implications of demography with Anthony Craddock, Bailard's Senior Vice President of International Equity Research.

Inside this Edition:

Eric P. Leve: People say demography is destiny, but rarely delve into the meaningful details. So, stepping back, how might it affect us as citizens as well as investors?

Anthony Craddock: Agreed—when swirling headlines of the world's immediate economic and governmental challenges occupy the brain—it's hard to give the longer-term consequences of demographic change the proper focus and consideration. But, not only are the impacts certain to be massive, the outline and direction of the transition are reasonably predictable.

Eric: More than predicable, I'd say inevitable. Nothing is going to reverse the aging of populations across the developed world and in China. Advances in healthcare should allow people to live longer, the large "baby boom" working cohort will enter retirement, and birth rates should fall or remain low. All else being equal, once a society grows old it does not then somehow grow young once again.

Tony: Let me stop you there for a second. I imagine most people around long enough would agree that, on a personal level, getting old can be problematic (though it beats the alternative). Likewise, an aging society generates its own difficulties. But, first, let's observe the beneficial phase of demographic transition. Based on historic data studying the implications of a developing economy, an increasing proportion of workers in the population goes hand-in-hand with a country's development from low-income to high-income. A country exiting poverty usually brings down its mortality rates with better healthcare, nutrition, and education. Children survive and fewer working age adults die young.

As development proceeds, and barring other factors, those children age into the workforce and the rate of new births starts to decline, while the number of elderly is still relatively small. This is the sweet spot where the economy can reap its demographic dividend, as a growing proportion of workers to dependents leads to a growing output (GDP) per capita, even with no increase in labor productivity (output per worker hour). Combine this with a growing overall population and you'll likely get a rapidly growing GDP in aggregate, increasing opportunities for scale and profit in the business sector as well as for creating a larger tax base for public services. If labor productivity is also increasing, this all goes into overdrive.

Eric: That's all well and good, but now look at what happens next. Generally, as development continues, life expectancies continue to rise while birth rates stay low; it seems that advanced economy levels of health, material comfort, and personal freedom naturally guide a society towards a fertility rate closer to two, rather than three or four. Workers age into retirement and, all else being equal, are replaced with a smaller group of new workers. In this case, the expanding cohort of elderly increases and all of the beneficial trends we just talked about can start to stall and go into reverse. Most countries today still have a high enough birth rate (sometimes augmented by immigration from faster-growing populations) to sustain positive population growth overall. For them, the labor force is still growing, just not as fast as the elderly. In a few countries, notably Japan, a low enough birth rate over time has caused both the workforce and overall population to shrink. Barring other factors, a larger number of non-workers combined with falling population make positive GDP growth increasingly difficult to come by.

Tony: And, the problem is exacerbated in countries with pay-as-you-go pension and benefit systems that transfer wealth across generations from younger taxpayers to old. This is seen today in the U.S. as working age income-earners face an ever larger burden supporting retirees drawing Social Security

In short, an aging society, all else being equal, will act as a drag on economic growth.

and Medicare benefits. Each year, the government borrows more to bridge a gap in the budget that becomes increasingly difficult to close. So the debt keeps growing relative to the size of the economy, at just the time the demographic headwinds make it harder to grow the economy and service the debt load.

Slower economic growth as well as changing spending patterns will tend to keep a lid on inflation (reduced discretionary spending along with the loss of earned income, big-ticket items having already been purchased earlier in life). So the public and private debt likely will not be inflated away either.

Eric: In short, an aging society, all else being equal, will act as a drag on economic growth. But what can be done to mitigate the effects? First of all, expanding the working-age population by increasing the standard retirement age seems a sensible adjustment to lengthening life spans.

Second, working-age population is not necessarily the same thing as workers or worker hours: if a too-small share of the working-age population is actually employed full-time, this suggests a way to strengthen the economy while playing the demographic hand already dealt. For starters, in many countries female labor participation rates have ample room to rise. Policies to increase labor participation among those who gave up and left the workforce entirely, and who are not included in headline unemployment rates, would also be undeniably beneficial. Increased labor productivity—whether achieved through intensity of capital employed per worker or improvements in technology or more advanced education and training—would be the silver bullet of choice for economists and entrepreneurs everywhere.

So let's spend some time here on the productivity puzzle. In contrast to what the current situation cries out for, studies by the Organisation for Economic Co-operation and Development (OECD) and others have found rates of productivity growth are on the decline, and in many places, rates are flattening to zero or going negative. Is the world growing lazy and less innovative?

It could be that there is some practical upper limit on the amount of economic juice that can be squeezed from the fruit of the average human's working hours. It's possible that we've done the great big impactful things already: specialization, industrialization, and urbanization; infrastructure for reliable power, sanitation, transport, and communication; legal and financial frameworks allowing corporations to efficiently organize production; widespread adoption of information technology, automating factory and office. It could be that we are well into an era of diminishing returns. I'll admit that the ability to summon a ride at any time from a random fellow citizen is pretty cool, but I don't think it meaningfully increases the value of a typical employee's efforts. In my opinion, nothing else we're going to download onto our phones or laptops is going to move the needle much.

Tony: OK, I've heard that before. But not so fast. I agree we can't discover penicillin or invent the electric light bulb a second time, but are we really at the tail end of gains from automation? I'd argue that we are still in early days. Advances in machine learning and artificial intelligence will one day make the idea of a physical or virtual robot acting on its own initiative feel commonplace. At that point, with several TED conferences' worth of tireless, quick-thinking research agents chewing over the world's problems, there's no telling what new ideas will come forth.

Eric: Sure, Tony, all our worldly problems will be solved by the super-smart bots. Are you suggesting humans will at last be freed from toil, leading lives of art and leisure, enjoying a living wage from the surplus generated by the fully-automated, hyper-efficient global economy?

Tony: Not necessarily. Don't forget quality. It's important to measure productivity beyond the crude equation of price multiple by quantity. A worker's annual output puts a dollar amount on the purchasing power in the economy enabled by that individual's labor. In judging whether that amount is growing quickly enough—say now, versus 30 years ago—you need to consider the standard of living supported by those dollars at the start and end. Today we are able to purchase certain products, think cars or computers, of a much higher quality than previously available. And then consider quality of life, including those things whose value is non-monetary (or difficult to monetize, for those producing them). It may be that every shared ride priced below true market value subtracts a little from the economy's output. But on the other side of the (non-monetary) ledger I'd put the convenience and overall satisfaction enjoyed by the rider. And playing free smartphone games anywhere I happen to be standing makes me happy… I don't see that benefit measured anywhere by the statisticians.

Eric: Perhaps let's now discuss implications of demographic change for investors. First, I'd note the likelihood of lower inflation and real interest rates persisting into the future. As the elderly become a larger part of the population, their spending becomes a more important piece of the overall economy as they hold much of the wealth and power relative to their younger counterparts.

Studies indicate the older cohort is averse to inflation, as they are often drawing down a pool of retirement savings or earning a fixed income smaller than that earned in the working years. Barring other factors, they have different needs than before, and make consumption decisions accordingly. Empirically, this is borne out by Japan's ongoing

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battle with deflation and, more recently, Europe's similar struggle.

Interest rates are harder to figure: slower economic growth in older countries should keep rates down, but less saving or negative saving by seniors could mean a rise in interest rates as banks and borrowers need to make their offers more attractive. If there is a consensus among economists it is that growth is the more important factor and lower rates the more likely result.

So what can we expect to come with a future of potentially lower nominal and real interest rates? Clearly, government and company pension plans would have even more trouble meeting their return projections and funding their payouts. Retirees depending on income from cash and low-risk bonds would need to draw down their savings faster or else need to reduce consumption. Central banks that have kept rates near zero would have less room for conventional monetary easing in the event of economic weakness—a situation faced by the European Central Bank (ECB) and Bank of Japan (BOJ) for some years now—and requiring increasingly creative and heroic measures to accomplish, well, not very much.

On the other hand, governments and corporations could issue bonds at ultra-low, even negative yields. Individuals would be able to borrow cheaply with predictable debt service and no shocking rate adjustments. In a low-growth, low-yield world, however, they wouldn't see the same effect that comes with inflation and expansion; that is, debts would become less painful to pay down as time goes on.

Tony: This sounds like an environment where investors would have to endure some volatility in order to seek out pockets of growth and earn a decent rate of return. One possibility—for investors who could handle the risk—is putting money to work in faster-growing markets outside the U.S. In the long run, economic growth matters a great deal for the profitability of a country's corporate sector and the value of its financial assets.

In contrast to the aging population profiles seen in most of the world, many countries in Southeast Asia and sub-Saharan Africa appear poised to enjoy the benefits of an increasing share of population in working age. This should underpin growth as well as a rise in living standards. Translating this into prospective investment performance for those higher-risk markets can be tricky, requiring fair and functioning legal and political systems as well as a modicum of good corporate governance. But, with the right demographic and growth backdrop, emerging and frontier markets (both beaten down as an asset class in recent years) could see a renewed wave of interest.

Eric: And, what does this mean for China? China is following the same aging pattern as the high income countries, partly due to its draconian one-child policy that was in place until 2013. If a country engineers itself into demographic difficulty, can it do the same to escape it? The current two-child policy could be relaxed even further or replaced with no policy, but that's likely not sufficient to create a future demographic dividend. And assuming the leader(s) of a centrally-controlled nation of 1.4 billion souls agreed that rapid population growth was the answer, I don't think a coercive four-child policy would be at all enforceable.

So, no, China's not getting any younger either. In fact, the current trade war comes at a time when the country is already adjusting to decelerating growth and facing a steep demographic wall. For all the well-founded concerns out there about China's rise, I think it is unlikely to supplant the U.S. in global importance over the next generation.

Considering demography makes for a multifaceted lens to view both global changes and implications in the equity markets. For me, broadly, demographics help explain today's global dislocations, forecast China's trajectory, and inform our understanding of the future investment landscape.

Failure to Launch: Why so many IPOs have been delayed in 2019, and why the typical investor may be better off without them.

Thomas J. Mudge, III, CFA is a Senior Vice President and Director of Domestic Equity Research at Bailard

2019 was expected to be a year filled with high profile Initial Public Offerings (IPOs) and—while there have been quite a few so far including Uber and Lyft—the timing of many others is now uncertain. To understand why, it helps to know a little more about the public offering process and a lot more about human nature.

IPOs are how some private companies raise investment capital by issuing new shares of stock to the general public. For most people, the best way to sell a house is through a realtor. You will receive professional advice regarding pricing, staging, etc. and your house will be presented in the best possible light to a broader array of potential buyers than you could ever discover on your own. Similarly, for most private companies, the best way to go public is through an investment bank and for the same reasons.

While realtors host open houses to entice buyers, investment banks hold road shows. In each case, euphemisms flow like water and never is heard a discouraging word. For houses, "charming" or "quaint" means tiny, "move-in ready" means vacant, and "easy access" means next to the freeway. For IPOs, the phrases are slightly less predictable but of a similar nature. "Focused on gaining market share" means striving for profitability, "disruptive" means hoping to change potential customers' established buying habits, and "exploiting big data" means gathering reams of information that may or may not have an ultimate payoff. In both the real estate and IPO markets, this pre-sale hype by third parties is designed to boost buyer/ investor interest, increase the ultimate sales price, and justify their healthy fees.

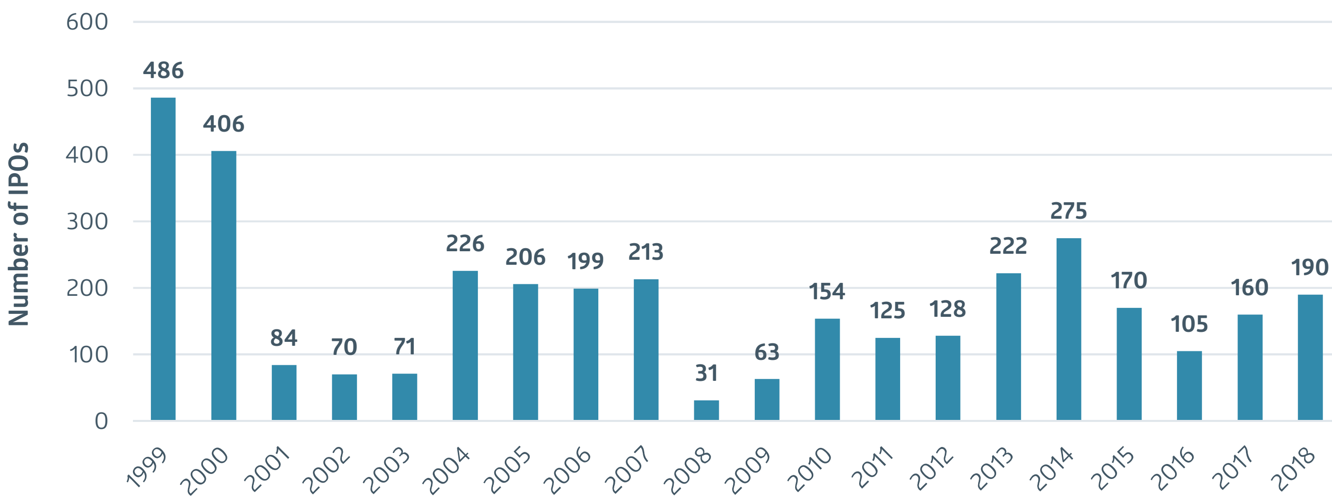
Why should the nature of IPO roadshows be of interest to prospective investors? A large driver of future stock returns is the difference between investor expectations and actual company results. In the case of IPOs—where the company hoping to go public is being expertly touted to investors in meetings across the country—expectations are naturally going to be high. In the case of certain private companies where investors are already somewhat familiar with their product (Uber and Lyft), expectations can run even higher.

While realtors host open houses to entice buyers, investment banks hold road shows. In each case, euphemisms flow like water and never is heard a discouraging word.

While some IPOs outperform the overall stock market, on average, they have been a poor investment for the typical investor. A study by Dimensional Fund Advisors (DFA) created an equally-weighted portfolio of all IPOs in the U.S. from 1992 through 2018. Each IPO was purchased on its second day public and held for an entire year. This IPO portfolio underperformed a well-known cap-weighted index of 3,000 stocks by 2.2% per year.

Sharp eyed readers may ask, "What about the first day an IPO trades publicly?" It is true for reasons beyond the scope of this column that, on average,

Number of IPOs in the United States from 1999 to 2018



Source: Statista 2019.

IPOs outperform the market substantially on their first trading day. Professor Jay Ritter, University of Florida Eminent Scholar, maintains an IPO database that indicates, over the past 40 years, the average IPO gained 18% on its first trading day. This outperformance swamped the underperformance shown in the DFA study, so why not just buy an IPO on the first day it trades?

Unfortunately, it's not that simple. First-day IPO allocations are like the swag bags handed out at celebrity events to which you are never invited. It's great if you find yourself the lucky recipient, but they're very difficult to get your hands on. And unlike celebrities who can do as they please, the institutional investors allocated IPO shares in advance must hang onto those shares, often far longer than they may wish, in order to be included in upcoming IPO allocations.

While the domestic IPO market has averaged over 220 deals annually over the past 30 years, there has been significant fluctuation in the number of IPOs from year to year. Appetite from the usual (non-first day allocated) investor for IPOs waxes and wanes based upon general market conditions and recent experience. While hardly anyone wants IPO stock when the overall market is falling, enthusiasm is also typically shaped by how well recent deals have performed and if any IPOs have been withdrawn.

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So far in 2019—while the overall stock market has remained healthy—investor IPO-specific zeal has taken several hits. Many highly-visible IPOs are trading well below their first day prices, and one of the most anticipated IPOs of the year (We Company, parent of WeWork) has withdrawn its IPO entirely.

Some view WeWork's difficulties as a unique situation and not more broadly indicative of general IPO appeal. Wishful thinkers hope WeWork's withdrawal is the equivalent of an old, sickly canary who was on the verge of collapse anyway, and not a problem with the air in the coal mine. While WeWork does have numerous distinct problems (a self-dealing former CEO and an asset-liability mismatch, among others), we believe it shares many common traits with other members of the 2019 IPO class.

A major shared characteristic among many recent IPOs is that they are launching entirely on the virtue of future expectations. Back to Mr. IPO: according to Professor Ritter, "it was unusual for a prestigious investment banker in the 1960s and 1970s to take a firm public that did not have at least four years of positive earnings. In the 1980s, four quarters of positive earnings was still standard. In the 1990s, fewer and fewer firms met this threshold. Still, the investment banking firm's analyst would normally project profitability in the year after going public."

Today, with many IPOs, profitability is expected to be more than a year or two away. This is beyond the "all sizzle and no steak" category to the point of being "no steak, but hoping for sizzle once we get the grill assembled."

As with any institution based upon hope and faith, it is helpful to not to have that faith tested too severely. The failure of one IPO—and the underperformance of many others—leaves the prospective IPO market vulnerable, particularly when the typical company coming public is offering mostly dreams of profitability somewhere down the road.

It appears that the difficulties of recently launched or withdrawn IPOs may force the delay of other companies wishing to tap into the public markets this year. This is probably good news for the average investor, as the temptation of an initial public offering is easier to resist when it is absent entirely.

Worst Performing 2019 Large Cap IPOs

Company	Performance Since IPO
Livongo Health	-57.3%
Lyft	-55.1%
Slack	-35.1%
Uber	-29.4%
SmileDirectClub	-28.4%
Peloton	-14.8%

Source: Thomson Reuters Eikon. Performance reflects price change only, from offer price to closing price as of 10/4/19. ***Past performance is no guarantee of future results. All investments have the risk of loss.***

Troubles in Hong Kong

Eric P. Leve, CFA is Bailard's Chief Investment Officer

I spent a week in Hong Kong last month, an almost annual pilgrimage I've been making for the past ten years. The tone on the streets was largely unchanged; aside from the weekend disturbances, most Hong Kongers' daily lives were generally unaffected. The protests garnered headlines (locally, but especially in overseas papers), but remained fairly geographically focused. However, the small proportion of the population affected daily, or the even smaller number that were actively protesting, doesn't tell the whole story.

The business of Hong Kong is business and that hasn't changed. But the city-state's broader environment stands in greater flux than at any time since the 1997 agreement between the U.K. and China to return Hong Kong to Chinese rule. From that time, the policy of "one nation, two systems" has been the guiding principle between the two entities. And, very critically, most of the weekly street protesters are young enough so as to have no memory of life pre-1997. Their perceptions and aspirations for Hong Kong are very different than those of Hong Kong's current leaders. But now the question is: does the current civil unrest pose a real risk to Hong Kong's relative sovereignty and to its appeal as an investment destination?

Very critically, most of weekly street protesters are young enough so as to have no memory of life pre-1997.

Hong Kong's Waning Influence over China

Politically, Hong Kong's independence has never been assured. At the time of the handover in 1997, Hong Kong got a deal that gave them relative independence for 50 years, through 2047. Realistically, no one expected that life would continue with the same freedoms for 49 years and eleven months and then suddenly fall under Chinese law. But neither did any one expect China's hand to become so heavy just 20 years in. China definitely struck the wrong chord by pushing for extradition of accused criminals. But something like that is the longer-term reality. Hong Kong protesters' cries for freer elections of their CEO seem like a pipe dream as that would represent a move away from eventual Chinese rule, not a step toward it.

Hong Kong's influence with China has waned as the city's relative economic and financial importance has withered in the past two decades. In 1997, China was a poor country with per capita GDP barely 2.5% of U.S. levels. In contrast, Hong Kong's per capita GDP stood at 87% of the U.S. in 1997. According to the World Bank, the same numbers as of 2018 show that China rose to 20% of the U.S. and Hong Kong fell to 78%.

Looking at its overall economy over the past 25 years, China has transitioned from an economy only four times larger than Hong Kong to one almost 40 times as large. Hong Kong was a global center of finance, a bridge to the outside world, and a source of prestige for China in 1997. Today China is the world's second-largest economy, its currency is part of the IMF's Special Drawing Rights, and its bond and stock markets are now accessible to global investors (its equity market, while not yet included to its full extent in global indices, is the world's third largest). Clearly, the dog and its tail have traded places and that shift is getting reflected in relative political power, much to the chagrin of free-market, free-thinking Hong Kongers.

Still a Gateway to Asia

While not the golden goose it might have been in the past, Hong Kong remains the premier gateway to Asia for foreign investors. The highly *laissez faire* nature of its capitalist system continues to garner the top spot in most surveys of economic freedom, well ahead of Singapore (generally in the second spot) and the U.S. (which hovers around tenth). So far the weekends of unrest in the streets have been solely between Hong Kong-based protestors and local police. The Chinese have wisely chosen not to bring out their People's Liberation Army troops garrisoned in Hong Kong. We believe this is very unlikely to become another Tiananmen Square but, as implied above, the current protests have been a taste of the struggle against inevitable policy convergence over the next generation. So where does that leave investors?

In the short-term, the protests have cast a pall over the market, but will likely have longer-term effects as well. One of the world's largest e-commerce companies has never had a listing in China despite being based in Hangzhou, China; instead, it made the U.S. its primary market. Earlier this year, the firm considered doing a parallel listing in Hong Kong to diversify its risks as the trade war between China and the U.S. escalated. Then, in August, with the street protests heating up, the firm postponed that decision.

Similarly, Saudi Arabia has been debating where to list shares in its national oil company. The initial candidates (outside of the local Saudi exchange) were Tokyo, U.S., UK, and Hong Kong. The U.S. fell out of consideration due to required disclosures and the risk of asset seizure if Saudi Arabia were to be designated as a sponsor of terrorism. The UK was dropped over the ambiguity around Brexit. Hong Kong, an early front-runner, was ruled out because of the recent and potential long-term risks related to Hong Kong's relationship with the mainland. In the end, Tokyo is likely to get the listing as the "least-dirty-shirt."

From a longer-term perspective, Hong Kong has historically benefitted as a landing spot for Chinese wealth fleeing the mainland (think the sky-high prices for Hong Kong residential real estate). The appeal of Hong Kong for Chinese workers and capital can only be diminished by even incremental moves to bring Hong Kong's systems more in line with the mainland's. Less volatile shores, such as Singapore's, might see a marginal benefit here.

When I next return to Hong Kong, I expect the trip in from the airport will be easier, but I suspect real changes will be hard to discern. Hong Kong remains a critical symbol for China and so the goose remains golden, if a bit chipped.

The Intersection of Aging, Savings, and Interest Rates

Linda M. Beck, CFA is a Senior Vice President of Bailard and the Director of Fixed Income

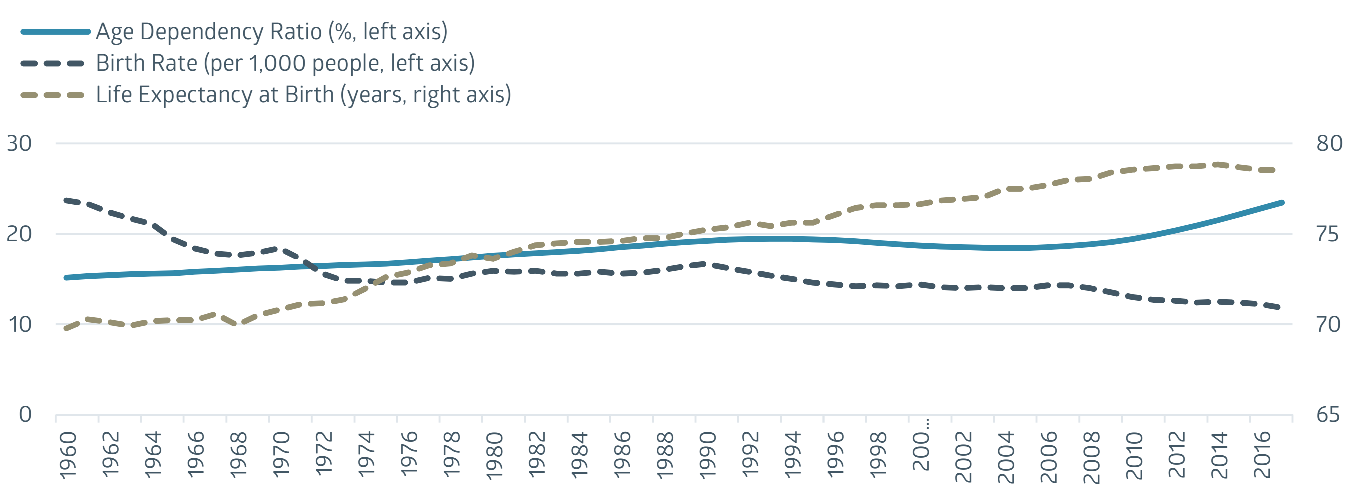
A country's economic growth along with its savings rate depend upon its demographics. Younger workforces spend much of their income on major asset purchases like education, houses, and cars, among a myriad of other things. As a workforce ages, savings rates generally increase as more money is invested to fund future retirements. Once retired, retirees then draw down savings to pay for living expenses. This perspective—and exploring the average age of a country's workforce—is helpful in determining the outlook for a country's savings rate, which in turn has implications for interest rates.

The aging of the U.S. and many other developed countries has been well reported. Since the early 1960s, life expectancy in the U.S. has increased by more than eight years while the birth rate has declined substantially. Everything else being equal, as a population ages, its labor force growth typically slows, usually triggering lower economic growth and lower interest rates. However, this typically occurs in tandem with a decline in savings rates, which then can push real interest rates higher. The net impact of these opposing forces depends on how the economy responds. If the economy can move from a less labor-dependent society to a more capital-dependent economy, then a higher interest rate environment may be maintained. An increase in productivity could enable economic growth to be maintained even with fewer labor participants.

Looking Ahead

Over the next decade, as more baby boomers enter retirement and barring other factors, a smaller pool of individuals in the labor force will be supporting a bigger number of retirees through entitlement programs such as social security and Medicare. A way to

U.S. Dependency Ratio is Rising: Population Growth is Declining, While Life Expectancy is Rising (1960 - 2017)



Source: World Bank, Age Dependency Ratio: Older Dependents to Working-Age Population for the United States; Crude Birth Rate for the United States; Life Expectancy at Birth, Total for the United States. All data retrieved from FRED, Federal Reserve Bank of St. Louis on October 10, 2019.

gauge this burden is to look at the dependency ratio, an age-population measure. The dependency ratio compares the number of individuals typically too young or too old for the labor force (those younger than 14 or older than 65) to those who normally are working (ages 15 to 64). Most developed countries have rising dependency ratios, which generally increase over time, all else being equal.

The domestic economy is certainly aging, but much of Europe and Japan already have higher dependency ratios than the U.S. It may take another ten years for the U.S. to reach the same ratios as Europe is experiencing today. Similarly, Japan has experienced an exceptional increase: since the 1990s, Japan's dependency ratio tripled. Although demographics were just one factor behind this increase, Japan's savings rate fell from 19% in 1995 to 7% in 2015.

And now, at least for the next decade, many economists predict that the impact from slower economic growth will outweigh that from reduced savings, resulting in lower than normal interest rates globally.

A Complicated Projection

It should be noted that many factors complicate such projections. The situation can change if governments increase savings to meet future entitlement obligations or if businesses issue less debt in anticipation of slower future economic growth. Additionally, disequilibrium between global savings and investments can impact the level of real interest rates. In the 2000s, Ben Bernanke, Chairman of the Federal Reserve (the Fed) espoused the idea that real interest rates were low due to a rapid buildup of savings in emerging market economies. Many of these emerging market economies had younger populations than developed economies. And today, China, for example, continues to have a high savings rate. Since China is still growing more strongly than most other countries, total global savings may increase despite declining savings in the U.S. and other developed countries. Developments in labor-saving technologies and automation can also strongly impact productivity. These technological advances are one of the ways in which economic growth may be sustained even with a smaller workforce.

Many economists predict that the impact from slower economic growth will outweigh that from reduced savings, resulting in lower than normal interest rates globally.

Economic Growth in Comparison to Debt

Since the credit crises, most global economies have experienced more modest growth. Slow real growth is one of the factors constraining interest rates to their currently-low levels. However, modest growth can pose a problem in leveraged economies, particularly if the interest on the debt exceeds economic growth. While the private sector has deleveraged some since 2008/2009, this has been replaced by public sector leverage. The large amount of sovereign debt that has been issued concerns many investors.

The U.S. moved from a budget surplus under Bill Clinton's Presidency, to an almost $1 trillion deficit in 2019, roughly 4.2% of GDP. The deficit is projected to average 4.4% of GDP over the next ten years to 2029, significantly larger than the 2.9% GDP average over the past 50 years. With $22 trillion in total federal debt, the domestic debt-to-GDP ratio is about twice as high as the U.S.'s 50-year average. The interest due on that debt adds to the deficit each year and, for the time being, low interest rates have kept servicing the debt manageable. Whether investors continue to have a strong enough appetite to buy our public debt depends on the savings rates, the belief that the U.S. Treasury bonds are some of the most secure bonds in the world, the outlook for alternative investments, and geopolitics among other factors.

High government debt risks reducing private sector borrowing and reduced private sector borrowing could constrain growth. Additionally, high levels of government debt can make it harder for governments to respond to unforeseen crises in the future, potentially making any recessions more painful. If creditors become concerned about the U.S.'s debt growing too large or our ability to pay off that debt, this would cause interest rates to rise. Such a scenario could create a vicious cycle where debt burdens are increasing as economic growth falters, fueling a larger burden. However, we believe currently-weak global growth, the massive amount of negative yielding debt abroad, and a continued appetite for U.S. Treasuries should continue to keep real interest rates in the U.S. low over the near term.

Closing Brief: Bailard's View on the Economy and Market Performance

Art Micheletti, CFA, Economic Consultant

U.S. Economy

The U.S. economy slowed earlier this year and appears to have deteriorated further in the third quarter. For the quarter ending June 30, the economy slowed to a 2.0% annualized rate and the year-over-year pace slowed to 2.3%. This was down from the first quarter's 3.1% growth rate and 2.7% year-over-year. The U.S. has remained on a slow growth path but, notably, is growing faster than most countries and regions.

The economic consensus forecast from both the Atlanta Fed GDPNow forecast and the New York Fed NowCast model predicts 2% growth again in the third quarter. The New York Fed Recession Probability Model increased once more in August to 38, a level consistent with prior recessions. In addition, the Organisation for Economic Co-operation and Development (OECD) Leading Economic Index for the U.S. has continued to trend lower, pointing to sub-2% growth in the fourth quarter, as does the Goldman Sachs Current Activity Index. Also pointing to economic weakness is the inverted yield curve, with short-dated U.S. Treasuries currently yielding higher than long-dated Treasures.

- We continue to expect slow growth as long as consumers support economic activity. Consumer spending has been augmented by a decline in savings and an increase in consumer credit. Employment growth has remained steady (1.5% year-over-year growth), while hours worked have been flat and hourly wages have trended higher at 3.2%. The number of people working, plus wages and the hours worked, gives an indication of nominal consumer income. Assuming 2% inflation, real income growth is around 2.5%.
- Housing has long been a drag on GDP growth but is now likely to become a contributor. The sharp decline in mortgage rates is expected to provide support for economic growth ahead.
- The manufacturing sector has continued to trend lower; the ISM Manufacturing Index fell into negative territory to 47.8 in the third quarter, consistent with weaker production and GDP growth. Durable goods orders have trended lower, indicating further cuts in production.
- Capital goods orders are also deteriorating, with year-over-year growth of only 0.6%. Capital expenditures have been disappointing, as cash flow and borrowing have gone to dividends and share buybacks rather than investment.
- In addition, inventories have remained high (relative to sales) and inventory accumulation has helped stabilize current growth at the expense of future growth.
- The trade deficit has continued to deteriorate. Barring a swift resolution to trade disputes, it is possible the worst of the trade war impact may yet be ahead of us.

> The biggest long-term problem for the U.S. economy is the increasing accumulation of debt.

The biggest long-term problem for the U.S. economy is the increasing accumulation of debt. The budget deficit is back above $1 trillion, corporate debt is near its record high, and the consumer continues to buy on credit. Moreover, debt accumulation has become a global phenomenon. Debt has been kept manageable by the suppression of interest rates by central banks and the massive printing of money. Central banks are leaning heavily on the scale of interest rate policy. In a free market, without central bank influence, rates should be moving higher (not lower) as debt climbs.

There is currently $17 trillion in negative-yielding global debt outstanding. Bond investors are paying for others to hold their funds. The only reason an investor would do this is if they expect even lower rates and expect capital appreciation in the short run. One thing that is clear, is that central banks have less fire power at this level of rates than after the Great Financial Crisis. While central banks have shifted to become more accommodative, how long will investors tolerate low/negative yields before revolting? If, as we have seen recently, a small increase in interest rates was sufficient to slow growth, what happens if central bankers lose control of monetary policy and rates spike?

For now, financial markets are hoping for more liquidity and prospects of a resolution to the U.S.-China trade dispute. Markets are currently swinging about on prospects of more rate cuts, central bank liquidity, and daily headlines regarding trade. The other big drivers have been the current impeachment efforts and concerns about oil production, as the world's largest oil facility was attacked in Saudi Arabia.

As noted, we continue to expect slow growth and low inflation, but there are a number of risks to this outlook and flexibility in both directions will be critical going forward.

International Economies

Global growth shows continued signs of deterioration and has remained on a slow growth path, with most international economies growing at a slower pace than the U.S.

One thing that is clear, is that central banks have less fire power at this level of rates than after the Great Financial Crisis.

Europe

Europe reported annualized growth of 0.8% for the second quarter, with the UK reporting negative growth of 0.8%. Year-over-year GDP in Europe was up 1.2%. Not surprisingly, the growth outlook for the third quarter is for continued anemic growth.

- The European Commission (EC) Business Climate Indicator, a measure of business confidence, fell below zero in September. GDP growth tends to follow.
- Retail sales fell 0.6% to start the third quarter, and the year-over-year pace slowed to 2.2%.
- New car registrations continued to deteriorate through the first half of the year.
- New factory orders remained in a downtrend and have led industrial production lower. The manufacturing sector in Europe is continuing to deteriorate as the IHS Markit Purchasing Managers Index (PMI) for Europe stood at 45.7 in September, well below the 50.0 level that indicates contraction.
- Construction activity continued to deteriorate in third quarter and, in September, the PMI Construction Index also fell below 50.0.
- The EC trade balance with non-euro countries flattened year-to-date, with imports and exports decreasing as well. This could be a reflection of deteriorating economic conditions and the trade war. Notably, Germany and Italy accounted for all of the surplus.
- Like the U.S. Federal Reserve, the European Central Bank (ECB) has been sounding more dovish and, after only modest growth in its balance sheet over the last year, the ECB appears ready to step on the gas pedal again.

With the Eurozone overnight rate at 0% and the cost of capital to banks zero, how much more incentive do banks need to lend? This liquidity flow is likely to find its way into financial markets.

- Europe is still dealing with the uncertainty of Brexit, with the daily news flow triggering rallies and pullbacks.

Japan

Japan reported growth of 1.2% annualized in the second quarter and 1% year-over-year. Japan's GDP growth rate is up from zero the third quarter of last year. While still weak, Japanese growth has gone from bad to less bad.

- Japan's Leading Indicator Diffusion Index continued its deterioration through August; economic growth should follow.
- Japan's real income and household spending have both slowed, falling to a 0.9% and 0.8% year-over-year pace in August. Household real cash wages (no benefits) are falling at a 1.7% rate.
- Retail sales jumped 4.8% in August, pulling the year-over-year growth pace to 2.0%.
- Japan's IHS Markit Manufacturing PMI deteriorated, falling to 48.9 in September. However, the Services PMI stood above 50.0, bringing the Composite PMI to 51.5, consistent with 1.0% growth.
- Industrial production fell 1.2% in August and the year-over-year rate slowed to -4.7%.
- Capital expenditure growth fell to 1.9% year-over-year in the second quarter and was decelerating heading into the third quarter.
- Japanese inventories have been growing and helped support third-quarter growth. These inventories appear to be unwanted (relative to sales) and will eventually have to be worked down, likely creating a drag on growth.
- The Japanese trade deficit remained in a down trend into the third quarter, with both exports and imports deteriorating.
- Amidst anemic growth and near-zero inflation, the Bank of Japan is likely to remain accommodative.
- After twice postponing another increase, on October 1, Prime Minister Shinzo Abe raised Japan's consumption tax from 8% to 10%. The prior hike in 2014 (from 5% to 8%) weighed heavily on the Japanese economy with GDP contracting two quarters in a row that year. In contrast, impacts this time are expected to be more muted; most of the proceeds of this tax hike are being put back into the economy, including the funding of free preschool education.

China

Chinese quarterly GDP growth increased from 5.6% to 6.4% in the second quarter, but the year-over-year pace slowed to 6.2%. This represents the lowest level in three decades. One year ago, China was growing at a 6.8% year-over-year pace; and now, in the third quarter, the economy appears to have deteriorated further. The consensus economic forecast is for 6.2% growth in 2019, declining to 6.0% in 2020.

- The trade war between China and the U.S. continues to weigh on Chinese economic activity; resolution will be a critical factor in getting China back on a stronger-growth path. China's trade surplus has actually improved over the last year despite the tariffs. Unfortunately, this improvement has resulted from imports having fallen faster than exports, reflecting weak demand both domestic and overseas.
- China's currency fell to an eleven-year low in August. China has been allowing the yuan to drift lower in an effort to offset the negative impact from U.S. tariffs.
- While having risen slightly to 49.8 in September (from 49.5 in August), China's official Manufacturing Purchasing Managers Index has stayed below the critical 50.0-mark for five months in a row. Output and orders continued to slow.

- The domestic economy is deteriorating. Electricity demand is falling and was relatively flat year-over-year as of September 30. Containerized shipping volume and freight rates are also relatively unchanged. Auto sales have been falling and retail sales are trending lower.
- China's capital spending growth continued to deteriorate and, in August, fell to a 5.5% growth rate.
- Credit growth continued to accelerate in September, as Chinese authorities have been using monetary and fiscal policy tools to support growth.
- China's banking system remains under pressure, with non-performing loans continuing to trend higher.
- Unlike most countries and regions, Chinese inflation is accelerating. Inflation climbed to a near six-year high in September (3% year-over-year). Nearly half of the September increase was attributable to a quick rise in pork prices, up 69% from one year ago. Surging food costs tend to get the attention of citizens and, if sustained, could lead to social unrest.

Unlike most countries and regions, Chinese inflation is accelerating.

Market Performance
As of September 30, 2019

U.S. Interest Rates	12/31/2018	3/31/2019	6/30/2019	9/30/2019
Cash Equivalents				
90-Day Treasury Bills	2.36%	2.39%	2.09%	1.81%
Federal Funds Target	2.50%	2.50%	2.50%	2.00%
Bank Prime Rate	5.50%	5.50%	5.50%	5.00%
Money Market Funds	2.42%	2.46%	2.35%	2.00%
Bonds				
10-Year U.S. Treasury	2.69%	2.41%	2.01%	1.66%
10-Year AA Municipal	2.48%	2.18%	1.82%	1.73%

Source: Bloomberg, L.P.

U.S. Bond Market Total Returns (US$) through 9/30/2019	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
U.S. Bonds				
Bloomberg Barclays U.S. Treasury Index	2.40%	5.48%	7.71%	10.48%
Bloomberg Barclays U.S. Corporate Index	3.05%	7.66%	13.20%	13.00%
Bloomberg Barclays U.S. Aggregate Index	2.27%	5.42%	8.52%	10.30%
Bloomberg Barclays U.S. 1-15 Municipal Blend Index	1.13%	2.99%	5.58%	7.39%

Source: Bloomberg, L.P.

Global Stock Market Total Returns (US$) through 9/30/2019	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
U.S. Stocks				
S&P 500 Index	1.70%	6.08%	20.55%	4.25%
Morningstar U.S. Small Value Index	-1.76%	-1.55%	10.73%	-10.52%
Morningstar U.S. Small Growth Index	-4.45%	-2.09%	16.94%	-8.13%
Morningstar U.S. Large Growth Index	-0.09%	4.96%	21.49%	3.89%
Morningstar U.S. Large Value Index	3.19%	6.39%	17.38%	6.12%
International Stocks				
MSCI EAFE (Europe, Australasia, Far East) Index, net dividends	-1.07%	2.57%	12.80%	-1.34%
MSCI Emerging Markets, net dividends	-4.25%	-3.66%	5.89%	-2.02%

Sources: Bloomberg, L.P. and Morningstar Direct

Alternatives (US$) through 9/30/2019	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
NFI-ODCE Index*	1.00%	2.00%	3.45%	5.27%
Gold Spot	4.46%	13.93%	14.81%	23.47%
WTI (West Texas Intermediate) Crude Oil	-7.53%	-10.09%	19.07%	-26.18%

Sources: Bloomberg, the National Council of Real Estate Investment Fiduciaries
**The third quarter return assumed to be same as second quarter 2019 return.*

Past performance is no indication of future results. All investments have the risk of loss.

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ABOUT *THE 9:05*

Since 1978, we've held a weekly company wide meeting during which we talk about the prior week's activities and those anticipated in the week to come. We refer to this meeting, which begins just after nine each Monday morning, as "the 9:05." Just as the 9:05 enables us to share our knowledge and insights with each other, this newsletter provides us with a valuable means of communicating with our clients. Hence its title: *the 9:05*.

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