the 9:05
Bailard Wealth Management
Quarterly Review of Economic and Market Developments
Q1 2019

Has the Dismal Science Become More Dismal?


This quarter, Eric P. Leve, CFA (Bailard's Chief Investment Officer) chats with the firm's CEO, Peter M. Hill about the perils of economic predictions.

The halls of higher learning can be glorious.

Except for economists. Their science has been called dismal. Their outlook is often dreary. And they are so often wrong.

Eric P. Leve, CFA: Many of us at Bailard are schooled in economics. Yet, we chose to pursue finance, which affords the luxury of picking among economic insights for the few indicators that actually translate into investment outcomes. Still, we are all consumers, residents and savers, all the things economists would call economic agents and the broader economy does affect us day-to-day. More than any time in the past century, the litany of economic theories has broadly failed to describe life after the Great Financial Crisis (GFC). Here, Peter and I ruminate on that and come to some conclusions as to the sources of this failure.

Peter M. Hill: Eric, a useful intro but I think the failure goes far beyond this post-GFC era. While the U.S. believed it had beaten the 1960's business and economic cycle through Keynesian tools (namely, counter-cyclical

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fiscal policy), back home in Britain we were experiencing what would later become known in the U.S. as stagflation, or the combination of low growth and high inflation. This was something deemed unlikely by Keynesian thinkers. It was a far cry from the levels of inflation and severity of stagflation experienced in both nations in the wake of the 1973 oil embargo. In my mind, it was that experience that refocused many economists on "supply side" economics, which found full flower during the leadership of Ronald Reagan and Margaret Thatcher.

Eric: You're right. And that 1970's experience also slayed the idea of the Phillips Curve: a trade-off between unemployment and inflation. This "death" of the Phillips Curve seems to describe a lot of economic theories. These theories get promulgated as a "law" of economics. Then real-time experience leads economists to recognize that the "law" is simplistic, with a limited scope or time-frame to evaluate true efficacy.

Peter: Even further, it's funny how some of these theories get completely flipped around. Economists used to talk about "crowding out," or the risk that indebted governments issuing too much debt would push interest rates so high that corporate borrowers would be crowded out by the interest rate levels. This would result in the government needing to again issue more debt, thus reducing the economic growth that may have been generated by that corporate borrowing.

Now, it's the inverse. We talk of "crowding in," or the idea that, in times when economic growth is tepid, consumers and corporations rein in their spending out of fear. Government spending leads to an increase in Gross Domestic Product (GDP), which reduces the fear and brings back those animal spirits. For me, that's a theory that sounds a lot like Keynesianism rehashed. And it certainly hasn't passed the sniff test any time in my life.

One knee-jerk version of the crowding-in theory might be TARP (the Troubled Asset Relief Program), a program begun in the weeks after the demise of Lehman Brothers in autumn of 2008. At its peak, TARP had made loans or investments totaling more than $400 billion[1] dollars to most of the major banks in the U.S., American International Group and two of the major U.S. automakers. It undoubtedly staved off some bankruptcies and provided some succor during the worst financial crisis since the Great Depression, but it is very difficult to tell if it produced a net benefit to U.S. GDP.

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Eric: This brings us to the economic theory flavor of the day: Modern Monetary Theory (MMT). This one's a non-starter from the beginning. MMT promises the world and has been promulgated by the media but yet rests on no economic orthodoxy. The theory posits that a government can create full employment by printing money and pushing its economy to full capacity without the messiness of collecting taxes. Only when the government's Delphic oracle sees inflation on the horizon does the government then hit the brakes on the economy by imposing taxes and selling bonds to draw all those excess dollars out of circulation. Call me simple, but I can't imagine a politician with the will to pull that lever. It defies both common sense and human behavior.

That said, the seeds of MMT are painfully obvious. In 1962, the richest 1% of Americans and the bottom 90% had an equal share of the American pie, each about 33%. According to the National Bureau of Economic Research, as of 2016, the 1% held 40% of the country's wealth and the 90% held barely over 21%. Income disparities have driven these wealth gaps as labor's share of the riches have diminished relative to those that have accrued to capital. Policy may be able to ameliorate some of that but, through industrial revolutions of the sort we're currently experiencing, income disparities often lasts for a generation.

Peter: Perhaps inflation is an even bigger issue for these theories. Where has it gone? Japan's equity bubble burst late in 1989 and began a five-year path to near-zero inflation, a level it has now been stuck at for more than 20 years. Japan's "lost decade" has become a lost generation. In that period, the rest of the world looked on with measures of *schadenfreude* as their own economies and financial markets continued to hum along. The GFC turned out to be a similar watershed event for the U.S. and Europe which—in spite of exceptionally-loose monetary policy—have been unable to engender either growth or inflation since then.

Eric: I think the Western world has caught up to Japan. The rapidly-aging Japanese population was a demographic time bomb that only preceded the rest of the developed world by 20 years. As consumers age (with fewer children born to replace them and/or restricted immigration), an economy's average age also rises. Older people tend to spend less and to bias their investments more to bonds than to equities. These forces together can lead to endemically lower interest rates.

Economists now think the "neutral rate of interest," the level of short-term interest rates at which an economy experiences full employment and stable inflation,[2] is much lower than it has been for most of modern history. And, given current demographic trends, it may stay low for a very long time. This may mean the traditional economic chestnut where rising levels of debt lead to higher interest rates may not play out in the short or medium term. In this case, a fresh perspective on the economic landscape is not favorable for savers: a scenario with continued, rather low interest rates coupled with the risk that future rates could spike higher than traditional models might have expected. A possible catalyst for that is the incremental changes in central bank balance sheets away from holdings of U.S. Treasury debt into other currencies and gold.

Peter: Thanks, Eric. An interesting conversation but, as you and I know, predicting economic outcomes is a very tough game. Even doing it well doesn't necessarily tell us all that much about other markets, like equities. So far, this low interest rate environment has been a strong tailwind for global stocks, and may well continue to be.

1 U.S. Department of the Treasury TARP Tracker, https://www.treasury.gov/initiatives/financial-stability/reports/Pages/TARP-Tracker.aspx

2 Laubach and Williams. 2003. "Measuring the Natural Rate of Interest," Review of Economics and Statistics 85, No.4 (November): 1063-70. https://www.federalreserve.gov/pubs/feds/2001/200156/200156pap.pdf.

The Bull Market at Ten: Aging Gracefully, or Over the Hill?

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

The current bull market celebrated its tenth birthday this March. The reason people find that significant has a lot to do with the anatomy of the investors that have participated in the market's rise.

Human energy and focus are both limited resources; mental and observational shortcuts save precious brainpower for other pursuits. One universal shortcut is our reliance on round numbers. It is easier to remember round numbers and they offer us satisfactory approximations of necessary information without overtaxing our brains.

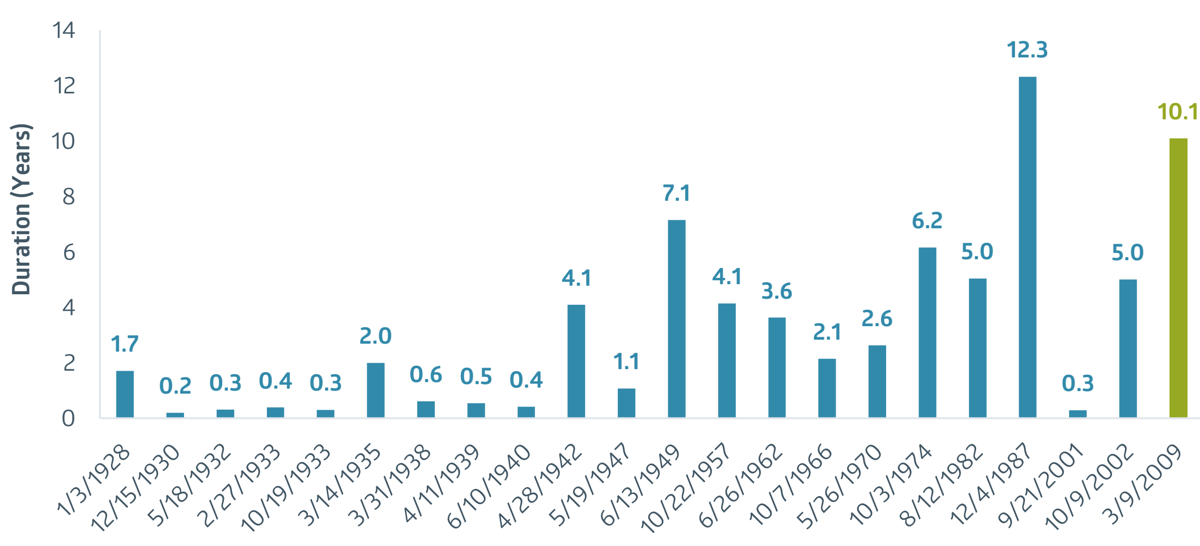
Humans primarily count in base 10, and the reason why can be grasped by your fingertips. Our tendency to focus on and assign importance to anything that is a 10 or a multiple of 10 is why we're inordinately focused on this otherwise arbitrary anniversary. So, can we at least learn something now that we have chosen to expend the energy to direct our gaze toward the stock market?

Defining a Bull Market

The commonly accepted definition of a bull market is a 20% or greater rise in the price of a group of stocks uninterrupted by a price decline of 20% or more. Ninety-one years of price data for the S&P 500 Index show 22 bull markets with an average duration of 3.2 years. The longest bull market lasted 12.3 years and the shortest was a brief 2.5 months. By this measure, the current bull market is the second longest ever and has lasted far longer than the 3.2-year average.

I'll pause to point out that the 20% gain and decline definition of a bull market again uses round numbers.

S&P 500 Index: Bull Market Durations Trending Higher



Sources: Bloomberg, Bailard.

In this case, that may hide as much as it reveals. The table at right reflects times when the market declines fell just shy of ending a bull market at that 20% decline cutoff.

Close Calls: S&P 500 Index Declines Just Shy of 20%

Date	Maximum Price Decline
3/6/1978	-19.4%
10/11/1990	-19.9%
8/31/1998	-19.3%
10/3/2011	-19.4%
12/24/2018	-19.8%

Sources: Bloomberg, Bailard.
Past performance is no indication of future results. *All investments have the risk of loss.*

Many investors view the S&P 500 Index as a proxy for the overall U.S. stock market but the basket of 500 public companies represents a large cap, growth-tilted slice of the entire market. This distinction is important because this portion of the market does not always move in sync with rest. While the S&P 500 Index is—by the +/-20% definition—still in a decade-long bull market, the Wilshire 5000 Total Market Index (a much more complete representation of the overall stock market) peaked in September of last year. This 5000-member index entered a bear market in late December 2018 and has rallied into a brand-new bull market as of late February 2019.

Regardless of how you define a bull market, stocks have risen substantially over the past ten years, with the S&P 500 Index returning over 17% annually over that time, far above its historical average of 10% per year (price change only). Is this a market long overdue for a major correction, or one just hitting its prime?

Perhaps dabbling in another human tendency of anthropomorphizing (or assigning human characteristics to non-human objects or animals) may reveal the bull market's currently condition and potential fate? Just as baby boomers wistfully ask if "60 is the new 40" when it comes to life quality and expectancy, could "ten be the new seven" when it comes to bull markets?

Examining Wellness and Longevity

While chronological age is certainly a contributing factor to a person's general health and eventual demise, the concept of biological age has gained acceptance as an important determinant of wellness and longevity. Diet, exercise, genetics, exposure to risk factors and medical treatment are just some of the influences that may differentiate between what the calendar indicates and the mirror reveals. People are generally living longer and healthier lives than at any time in history. The current bull market is long in the tooth from a chronological standpoint; could it be similarly blessed with a significantly-younger biological age?

A checkup of sorts may help to reveal just how biologically old this bull market really is. Just as people need nourishment, so does the stock market. The fuel that feeds stock prices is earnings growth, which has been positive and largely stable through most of this decade. Though productivity gains can help, the primary source of earnings growth is economic activity. A strong economy spurs robust earnings growth while a weak economy slows, or even shrinks, it.

Economic cycles are typically longer now than they have been historically and, if the current economic expansion lasts through June of 2019, this cycle will become the longest in U.S. post-war history. Due in some measure to either deft or fortuitous moves by central bankers to regulate economic activity, the boom-and-bust pattern of the past has been altered in favor of longer expansions that should accommodate longer bull markets. Recently, earnings growth has slowed and brought predictions for lethargic results through the end of the year. A reacceleration in earnings may be needed to keep this bull market in good health.

Just as baby boomers wistfully ask if "60 is the new 40" when it comes to life quality and expectancy, could "ten be the new seven" when it comes to bull markets?

On the other hand, major risk factor exposures for people include smoking, excessive stress and accidents. All are bad in isolation and can trigger a cascade of other problems. Similarly, primary risk exposures for stocks include uncertainty, negative news and excessive enthusiasm. Uncertainty is ever-present but stoked by events like wars (trade or otherwise), politics, market volatility or any sort of rapid change. Negative news can be market specific, industry or economy wide. Beyond that, natural or man-made disasters, criminal behavior, accidents or simply poor or worsening corporate results can all cause investors to reassess their situations. Excessive enthusiasm usually manifests itself either through an unsustainably rapid rise in stock prices, historically high relative valuations, or both.

The bull market's check-up reveals limited symptoms from these risks. Uncertainty has continued to be quite low, as measured by VIX, the Chicago Board Options Exchange Volatility Index that gauges the market's anxiety level. Negative news has been sporadic and not pervasive. Enthusiasm has generally remained contained when measured by price trends or by valuation measures: the S&P 500 Index's current price level below that of six months ago, its price-to-earnings ratio is very near the average level of the past 35 years and its earnings yield is well above the Ten-Year U.S. Treasury yield.

In Search of Treatment

Medical treatment for people can soothe, or sometimes entirely cure, ailments. For the stock market, excess monetary liquidity—driven by central bank quantitative easing (QE) and historically-low interest rates—works in a similar fashion. Spurred by the GFC, central banks flooded the market with liquidity in order to reduce panic and restore order. With the Federal Reserve (the Fed) aggressively buying bonds, cash has flowed into investors' hands. Low interest rates made alternative investments like cash and bonds appear relatively unattractive. Eventually, stocks remained as the only liquid asset providing either yield, return or both. While the Fed kept buying, the cash kept coming. And, just as certain medications can reduce anxiety, so too can regular doses of liquidity help to keep the stock market calm and rising.

While the Fed continues to play doctor, its range of treatment options has been reduced to mostly palliative care. Interest rates that have been generally rising for several years are now well above their historical lows. The Fed is also eager to unwind some of those past bond purchases it made during quantitative easing, essentially to restore its arsenal if required to step in again in the future. Should the market need treatment, the Fed may not have a complete cure this time.

After a thorough examination, a reasonable diagnosis seems to be that—while no longer young—the bull market remains reasonably healthy for one of such an advanced calendar age. Circumstances can always change quickly but, as of this moment, ten really is the new seven for this bull market.

The State of the States: How Will a Slowing U.S. Economy Impact State Finances?

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

The U.S. economic recovery is on track to become the longest in post-WWII history. Real GDP has averaged 2.3% annual growth since this cycle started in mid-2009 after the GFC. In 2018, growth increased to 3.1%, bolstered by the Tax Cuts and Jobs Act (TCJA) of 2017. Importantly, economic growth serves as the foundation of credit conditions and quality.

State governments' largest revenue sources (excluding intergovernmental transfers) are taxes: sales, income and corporate. For local governments, property taxes generate the most revenue. Positive economic growth usually results in high tax receipts, in turn supporting state and local governments. Realized gains or losses from the stock market can also have a significant impact on revenues.

Recovering from the GFC

State tax revenues have grown each year since the GFC, with growth slightly outpacing GDP. 2016 and 2017 had a weaker 1.7% to 2.4% range of revenue growth after the U.S. economy slowed in those years. Then in 2018, revenues surged to 6.4%, aided by the TCJA. The TCJA lowered marginal tax rates but incentivized taxpayers to realize taxes in 2018 that otherwise would have been realized in later years.

Unlike the Federal government, most states must pass balanced budgets each year. When states experience revenue shortfalls, many often will implement mid-year budget reductions. In 2018, only seven states enacted such reductions: a reflection of the current strength, or credit health, of state governments.

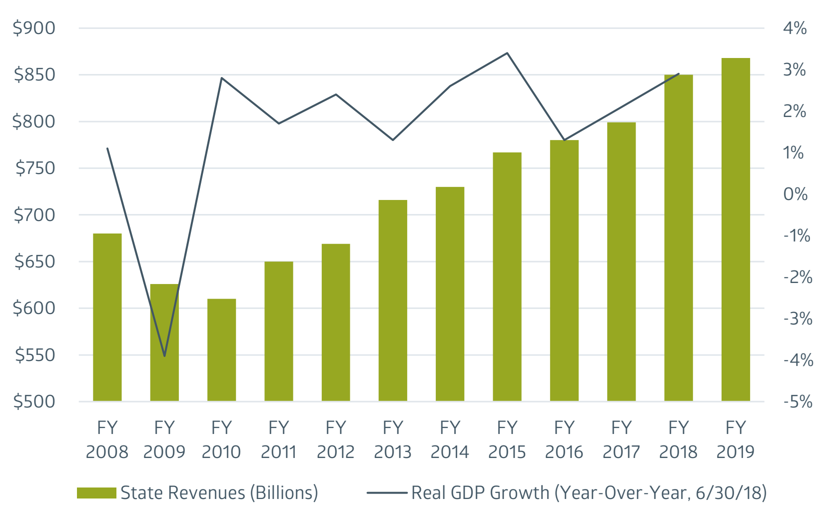
In the current environment, there are more municipalities receiving credit rating upgrades than downgrades. As state governments began to recover from the financial impact of the GFC, the number of issuers receiving upgrades by bond-rating company Moody's returned to healthier levels in 2014. However, the dollar amount associated with the upgrades was less than downgrades until 2016. This is the result of a small number of issuers with a large dollar amount of debt being downgraded in these years, including Puerto Rico, Illinois and the City of Chicago, among others. It was not until 2018 that upgrades finally exceeded downgrades in both number of issuers and dollar amount of debt.

Slower Growth Ahead

State general fund revenues are projected to grow 2.1% this fiscal year. In response, states have enacted modest budgets with some modest changes to their tax revenues sources, largely in response to changes stemming from the TCJA.

Looking ahead, future global growth is expected to slow. The main impact of the TCJA—which boosted

State Revenues Increased Significantly in 2018

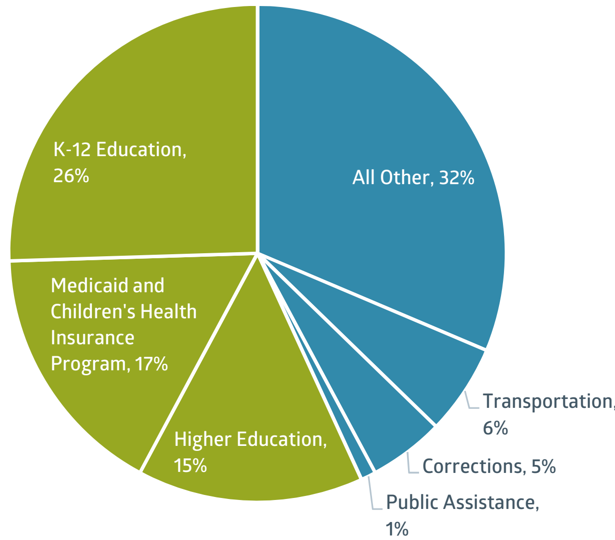


Sources: National Association of State Budget Officers, Bloomberg.

growth in 2018—is now behind us. Weakening demand from abroad, tightening financial conditions, geopolitical concerns, rising labor costs and pending tariffs are all expected to slow growth and add to the likelihood of a recession. Combined with actions at the state level, these policies will have mixed credit implications for a variety of business sectors, as well as for the credit quality of the U.S. and state and local governments.

Notably, more than half of states' tax revenues fund education and health care. Many states face political pressure to increase spending in these areas, with many nationwide teacher strikes and mounting demand for increased funding as a result. Other spending may be reduced to offset these funding needs.

More than Half of State Tax Revenues Fund Education and Health Care (Fiscal Year 2016)



Sources: National Association of State Budget Officers, Center on Budget and Policy Priorities.

Implications Moving Forward

If the U.S. economy slows, this will most likely translate into less tax revenues to support municipal credits. States with the strongest demographic and migration trends will have more sustainable revenue growth. Whereas those with weak demographic trends and underfunded pension liabilities may struggle. With low interest rates, many governments and businesses have assumed additional debt; however, most state and local governments have low leverage levels, averaging only about 16% of GDP.

Most state and local governments have high exposure to equity market volatility through their pension funds. The condition of the State of California's pension funding is similar to the national average: it is ranked 26th for underfunding. About 70% of California's public pension liabilities are funded with existing assets. Since the GFC, public pension funds have reduced their projected investment returns, which has reduced the amount of liabilities funded. Fortunately, investment returns have been above those targets of late (although discount rates have been lower as well). Except for a few cases—including Kentucky, New Jersey and Illinois—most pension concerns represent long-term financial issues rather than a near-term cash crunch. Retirement health care liabilities are also a burgeoning liability for municipalities; however, unlike pension promises, these are generally not backed by explicit state guarantees, so most states and local municipalities are free to change the provisions of these plans or eliminate them entirely.

During recessions, tax revenues fall faster than wages and business profits because lower wages and profits push people into lower tax brackets. This means that after-tax incomes decline by less than pre-tax incomes, mitigating the harm to purchasing power caused by the recession. This has a stabilizing impact on the economy but makes state revenue sources more volatile. A significant stock market correction would also cause stress on state budgets.

Fortunately, since the last recession, states have been replenishing their reserves, which will provide a cushion in the next downturn. The median rainy day fund balance as a percent of general fund spending is about 7.3% this fiscal year, up from a low of 1.6% in 2010. California is one of the many states that created a rainy day fund after the GFC. With these reserves, states are expected to be able to successfully weather a short-term, moderate economic downturn. A more significant downturn, or a protracted one, would require additional spending cuts by states.

Emerging Markets' Coming of Age

Eric P. Leve, CFA is Chief Investment Officer and an Executive Vice President of Bailard

We've all seen the feel-good movie: the hard luck kid (probably endowed with a good heart) is running off the rails or getting beaten up. The kid meets a generous guide, who is older and wiser, and by fits and starts the unpolished rogue matures into a true hero. It's an upbeat framework but, unfortunately, the narrative isn't a natural fit for the coming of age tale of emerging market equities. The International Monetary Fund (IMF) has rarely proven to be that wise mentor: the trajectory for emerging markets has been more nuanced than the model of *The Karate Kid*.

If one were to distill the history of emerging markets (EMs) into the shortest of stories, it might read: in the 1980s they were a novelty, in the 1990s they were engaging, in the 2000s they were profitable and in the 2010s they've been a disappointment. Alternatively, investors may have initially viewed emerging markets as a space where only cowboys tread. Then their perspective turned to hold EMs as a place to bolster investment returns relative to U.S. stocks and developed market non-U.S. stocks. As some disappointment set in, the narrative became that well-timed bets could generate outsized returns and then, most recently, EMs became a place that teases but perennially disappoints.

Yet, there are at least two other narratives that better describe the evolution of these less developed equity markets. Both scenarios rely on a backdrop of economic development: one mainly regional and the second global in scope.

When a Region Comes into its Own

The regional plot focuses on Asia, where cubs have prowled and grown into tigers. Here we speak of countries that enjoyed world-beating economic growth for most of a generation. Then, having built an industrial base, these countries relished standing as market leaders for a time afterward. In this queue, Japan came first, with its post-WWII economic boom that generated annualized economic growth in excess of 9% rather consistently though the early 1970s. Like all nations that play catch-up, though, Japan's growth eventually returned to global averages. A similar story can be told of their equity market but, critically, with a lag. This is the general character of quickly-industrializing markets: first, you get the economic growth but modest stock market returns, followed by an extended period when the equity market is a world-beater. Japan's great run of equities lasted through the end of the 1980s but has brought little cheer since.

Most recently, EMs became a place that teases but perennially disappoints

Singapore moderately bucked the trend set by Japan, with its great economic run extending roughly ten years beyond Japan's. Singapore's equity market managed to enjoy strong returns during its economic growth period, but also faltered through the mid-1990s when the Asia Crisis brought down equity markets both strong and weak. Taiwan suffered the same fate with its world-beating returns through the 1990s. For the ten years ending in 2007, South Korea's equity market produced 31.2% annually as its electronics, container ships and cars became ubiquitous around the globe.

Today, China's economic growth has been in secular decline since its spectacular surge began slowing in 2010, the last time the nation achieved real GDP growth in excess of 10%. That growth has now slowed to near 6% and is likely to converge further with tepid global growth over the next decade. And while Chinese equity markets experienced several spectacular years of returns in the mid-2000s, those highs have been nearly non-existent since.

But history tells us when nations invest, build and generate strong GDP growth, equity returns will follow. This is consistent with how returns accrue to individual companies as well: capital spending tends to point to weaker returns in the near-term but stronger returns ahead. And so, in many ways, the next emerging market "miracle" is likely to be China. Amid the wheat and the chaff of Chinese equities, stocks trading on the mainland have historically been the domain of relatively-uninformed individual Chinese investors. Global institutional investors are now rushing into newly-formed trading channels, providing foreigners access to a universe of more than 1,300 mainland stocks.

A More Global Tale

The second story line of growth economies becoming successful equity markets is one based on demographics and changes in economic drivers. In the traditional model of economic development, countries follow a path from the markets being driven by agriculture, then by industry and, finally, by services. Agriculture-based markets tend to produce more children, and have a generally-younger population than those driven by industry or services. A source of commodities in the ground can also smooth the path from agrarian to industrial for many markets (consider much of Latin America). During that transition from an agricultural to an industrial focus, the abundance of youthful workers can be a tailwind, yielding lower-cost manufacturing.

As China is now losing the role of low-cost exporter to the world, several markets seem poised to fill that gap. The most likely near-term replacements are Vietnam and, surprisingly, Indonesia. Vietnam is rightfully touted as having a young, highly literate and energetic workforce. It still fails to provide good access to their stock exchanges in Hanoi and Ho Chi Minh City. But as development in Vietnam's financial sector catches up with its manufacturing prowess and capitalistic zeal, investors in Vietnam could enjoy a good run.

Indonesia is very much the ruffian who has tried to make good and failed several times. It is generously endowed with oil, gas, gold and many critical base metals, but the country has never punched at its weight as a commodities exporter. One reason has been a deplorable lack of transportation infrastructure to get goods to ports. Under current president Joko Widodo ("Jokowi"), this has improved. Happily, Jokowi appears to be the least corrupt leader in the nation's history, yet his efforts to make Indonesia globally competitive aren't as focused on the export of raw materials as during the previous "golden time" for Indonesia in the mid-2000s. This time the infrastructure will go to moving finished goods out of the vast archipelago and could be the jolt that fires Indonesian equities for years to come. This is the backstory for Indonesia's sequel.

Beyond Asia there exists a spectrum of potential for where investors may turn their attention. Nigeria has been touted as the "next" market for over ten years. Unfortunately, even with a young population, Nigeria's political and governance structures will probably not move beyond that same description for another decade or two. East Africa has developed quickly with the help of Chinese capital and Kenya has many aspects that may propel it up the league tables over the next decade. In the near term, the best opportunities remain as described above: markets where governance has improved and where economies and the equity markets have evolved to capture the full range of commodities, goods and knowledge-intensive industries.

Emerging markets are not homogeneous. Though EM returns have been dispiriting in the past decade, the prospects for rapid economic development and engagement with global markets—leveraged by what futurists are calling the fourth industrial revolution with the integration of man and machine in a wide range of processes—coupled with quickly-developing financial markets, makes this as exciting a time for the space as we've had in a long while.

** Unless otherwise indicated, the equity returns cited in this section of the 9:05 are based on their respective MSCI region or country indices. The returns of these indices along with those of the MSCI EAFE and the MSCI Emerging Markets indices are presented in U.S. dollar terms on a total return basis (with net dividends reinvested).*

Listening to the Market

Ronald W. Kaiser, CRE, is a Co-Founder of Bailard and Director of Real Estate Research

Having been with Bailard since the firm's founding 50 years ago, I understand that long-duration "market tops" late in the cycle can be frustrating times. We know that the deeper we are into an economic expansion, the closer we get to a correction. So with a downturn potentially lurking around the corner, we certainly don't want to rationalize an investment just before "the music stops." We've identified target markets with good population and job growth, upward trending rents and balanced supply/demand fundamentals. Yet, the vast majority of investment opportunities don't meet our return targets.

Where else should we look?

You listen to the market.

Cap rates in cities like San Francisco and Seattle have settled at historic lows of 4.9% and 4.6% (Office) and 3.6% and 4.2% (Multifamily), respectively.[1] We believe that the potential returns at these pricing levels do not justify the risks inherent in those asset types in those markets. Those two metro areas, together with San Jose, Boston, Austin and Raleigh/Durham, form an economic cluster tied to Tech ("Tech Centers"). We believe the pricing has been driven up as the larger, institutional firms have accumulated an outsized position in the cities that make up the Tech Centers cluster.[2] For the past few years we have generally steered clear of the Tech Centers in large part because of our view that assets in those cities are "over-bought" and that the risk/reward balance is not in equilibrium at this point in the cycle.

But sometimes, when you listen, a potential gem reveals itself. For example, earlier this year in the course of regular conversations with our friends, allies and partners, an interesting investment opportunity surfaced. Located on the edge of a Tech Center city was a simple but sprawling community retail shopping center. The center had some vacancy and its market value had fallen well below its original development cost from just before the GFC. Yet, the market is growing, the center has outstanding access and visibility, the tenants' sales are picking up and there are no competing shopping centers in the immediate area to draw shoppers away.

To us, "listening to the market" means both a willingness to be open-minded and an eagerness to understand a complicated story. This opportunity came with myriad moving pieces to figure out... and the current owner just wanted to move on. If we and our local operating partner can resolve the issues, this investment could be a home run. We don't yet know if we will

ECONOMIC CLUSTERS

Bailard real estate research has developed an approach that organizes America's 128 different urban areas (Combined Statistical Areas, or CSAs) into eight groups of similarly performing cities. This is not done by the standard industry geographic approaches, where cities are grouped into broad regions of East, South, Midwest and West. Instead, Bailard has grouped the CSAs into similarly-performing economic clusters, where the economic drivers in these cities are similar from city to city, and therefore the various property types tend to move in rhythms that correlate with each other. The eight clusters include Capital Metro, Heartland, Large Growth, New SoCal, New York Corridor, Old SoCal, Sun & Sand and Tech Centers.

Using a geographic screen, Tech Center cities like Austin, Boston and San Jose would appear to be diversified all around the country. Yet, the Tech industry's continued extraordinary growth has driven rents to extreme heights that has propelled a large wave of development. This brings substantial risk of overbuilding and a subsequent downward correction in rents and market values. As a result, we believe there's less diversification protection from this risk than geographic diversification screens would suggest.

Our research has grown from the efforts of our previous work over the past 25 years. Please see Bailard's white paper, "Using Economic Clusters to Better Manage Risks and Enhance Returns" for further details.

even be awarded the deal, but we're intrigued by the possibility. Retail properties right now are the least favored property type for institutional investors as e-commerce puts traditional "bricks & mortar" through wrenching change. This is especially so for properties with problems to solve. For the right deal, we view that as an opportunity to create value.

Why aren't more investors pursuing this deal? Beyond the fact that retail is an "orphaned" property type at this time, we believe it's one or more of several reasons. First, it's too small for the big players.[3] Second, it's too much work. Third, it's in a smaller Tech Center city, so it's below the radar of many of the bigger firm's acquisitions officers. Fourth, it could be "structural." That is, in most large firms, the research group is in a separate silo from acquisitions which, in turn, is separate from asset management. It's not an optimal organizational structure for surfacing and vetting opportunities that require creativity, vision, effort and energy.

We enjoy the unruly process of putting our entire investment team in the same room every Monday morning to discuss all the opportunities in the "pipeline." Issues are vetted. Concerns are raised and discussed. Questions are posed and answered. This, we believe, allows an attractive real estate deal to be revealed. Instead of the traditional "top-down" approach of filling prescribed geographic and property-type buckets, we prefer to let opportunities bubble-up from the bottom.

The beauty of investing in private transaction markets is the opportunity to find inefficiencies. We like to listen to the market. Even if a particular metro area or property type is a little outside our "strike zone," if we're willing to listen, we might hear something quite appealing.

We enjoy the unruly process of putting our entire investment team in the same room every Monday morning to discuss all the opportunities in the "pipeline."

1 A property's capitalization rate, or cap rate, is a measure of its net operating income relative to its market value. Source: Real Capital Analytics.

2 The NCREIF Fund Index – Open-End Diversified Core Equity (NFI-ODCE) is a fund-level index reporting the returns of various open-end commingled funds pursuing a core private real estate investment strategy and qualifying for inclusion based on certain pre-defined index policy inclusion characteristics. As of 12/31/2018, the ODCE's Index had a 30% weighting to the Tech Center cluster.

3 NFI-ODCE average property gross market value was $86.4 million as of 12/31/2018.

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

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U.S. Economy

The U.S. economy entered 2019 on a slower-growth trajectory than originally reported. Fourth quarter growth was revised down from a 2.6% annualized growth rate to 2.2% rate. Year-over-year growth hit 3.0% at year-end, which was well above the average 1.8% growth rate since the turn of the millennium (but still below the average post-WWII growth rate of 3.8%). Growth in the U.S. has improved but remains well below the historical average and is already reverting back to the secular, slow growth path. The Bloomberg economic consensus forecast for the first quarter of 2019 is for growth to slow to 1.5%. The Federal Reserve (the Fed) is only projecting 2.1% growth for 2019, and growth just below 2.0% for the next two years.

2018's tax cuts and more debt creation provided a one-time boost to the economy and corporate profits. In our view, however, this is unsustainable and debt will continue to undermine long-term growth. Debt-driven growth has been kept manageable by extremely accommodative global monetary policy. The Fed, the Bank of Japan, the European Central Bank and the People's Bank of China flooded the global financial system with liquidity—via Quantitative Easing (QE)—and pushed interest rates to extreme lows for almost a decade. Despite the flood of "newly-printed money," it's ironic how little growth this debt generated and, unfortunately, the debt still needs to be paid back.

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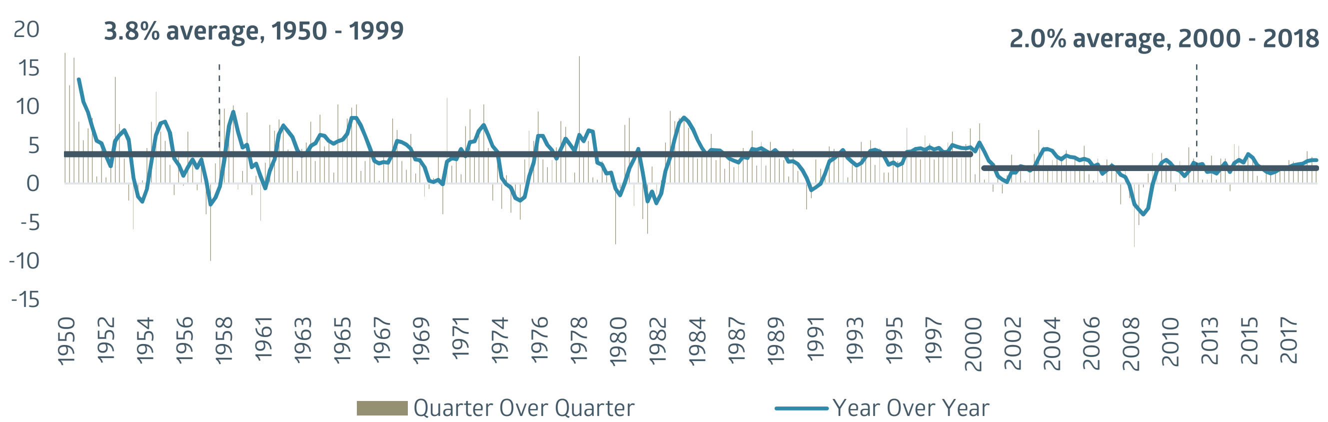
The Fed began reversing QE in late 2014 and moved to balance sheet normalization (buying less debt) and raising interest rates. Although interest rates have remained historically low, even a small increase in the Fed Funds rate from 0.25% to 2.5% was enough to both trigger a massive equity sell off last fall and fan growing concerns of recession. This was sufficient cause for the Fed to back away from quantitative tightening to a

Real Economic Growth (RGDP, %), 1950 - 2018



Sources: Bloomberg

more tempered unwinding of its balance sheet. This more dovish position sent equity markets higher in the first quarter of 2019.

The biggest cracks in the U.S. economy for the quarter were in autos, housing, retail and net exports. These sectors were all down year-over-year and technically in recession. With long-duration U.S. Treasury yield rates falling and short-duration rates stabilizing, the Treasury yield curve has inverted out to ten years, with long rates below short rates. Historically, inversion of the yield curve leads to slower growth or recession.

The key takeaways are that economic activity slowed in the first quarter of 2019, earnings expectations were declining and bond yields have been discounting slower growth. Weaker consumer spending and inflation data reflected slower economic growth at the start of the year. However, consumer sentiment, new home sales and mixed regional manufacturing survey suggested a potential rebound in activity in the coming months.

The biggest concern going forward is the trade war with China. Higher tariffs have pushed global trade lower, creating global uncertainty. The initial reaction to tariffs yielded a rush to buy, as importers built up inventory to avoid tariffs that were supposed to take place in January (but were postponed). As a result, port activity in the U.S. was jammed in 2018 and inventories were rebuilt. Now, in 2019, port activity has been quieting and the inventory drawdown is likely to be a drag on growth.

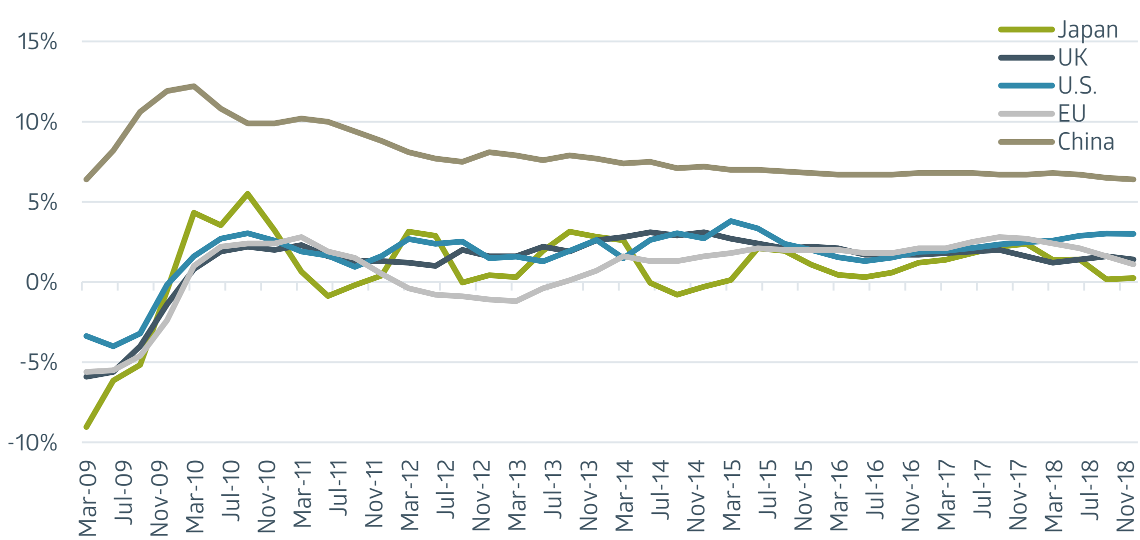
International Economies

The mantra of "synchronized growth" from early in 2018 faded to concerns of recession by year-end. Not only have we seen large downgrades to consensus growth estimates and central banks' expectations of global GDP growth and inflation, leading indicators also point to much weaker international economies ahead. U.S. growth (driven by tax cuts) looks relatively solid compared to the rest of the world. As can be seen in the chart below, U.S. growth of 3.0% year-over-year is much higher than both Japan and Europe, at 0.3% and 1.1%, respectively. Chinese growth has continued to flag from its previously spectacular highs.

China

Chinese officials have lowered their growth expectations to 6.0%-6.5%, as Beijing braces for weaker domestic demand and more fallout from the China/U.S. trade dispute. Chinese trade deteriorated year-over-year, as exports dropped a precipitous 21% as of February 2019. China, as the world's second largest economy, stands as a primary concern for overall global growth and trade. A quick resolution to trade issues would remove much of the global financial landscape's uncertainty and help reverse the slide in global trade.

Global GDP Growth, Year-over-Year, 2009 - 2018



Source: Bloomberg.

Year-over-year as of December 2018, Chinese GDP rose 6.4%, the most anemic increase since 1990. Growth was weaker across the board, with retail sales, production, exports and capital investment all slowing. China has lowered its GDP goal post, and they are increasing their stimulus efforts. Chinese stimulus could boost GDP in coming quarters, with some manufacturing surveys already showing initial improvements. However, some of the improvement may be due to the timing of the Chinese New Year, which is causing numerous problems with seasonal adjustments of data.

Japan

Japan was one of the first countries to see growth deteriorate in 2018, falling to -2.4% in the third quarter before ticking up to 2.0% by year-end (both figures annualized). Year-over-year growth remained flat and Japan has been basically treading water. Its growth continues to slow, weighed down by demographics, a lack of immigration and excessive debt. The latest available economic data point toward more weakness in the first quarter. Retail sales, industrial production and new orders have continued to decelerate. The trade balance improved, which will contribute to GDP growth, but the improvement was due to imports falling faster than exports; both were weak.

The Bank of Japan (BOJ), unlike other central banks, has continued to provide liquidity to its economy and financial system. They are still expanding their balance sheet, keeping interest rates low and the massive debt burden manageable. The one thing the BOJ cannot afford to do, or for that matter any central bank, is lose control of interest rates.

Europe

In March, the Organization of Economic Cooperation and Development (OECD) took a meat cleaver to European growth forecasts. The OECD and the International Monetary Fund (IMF) have both warned that the global economy is suffering from global trade tensions and political uncertainty. The OECD downgraded its European growth forecast for 2019 to 1.0% from 1.8%. In March, the OECD reported that "the global expansion continues to lose momentum and growth outcomes could be weaker still if downside risks materialize or interact."

At the top of the list of other things to worry about is Brexit, political and social unrest in France, growing anti-euro/EU sentiment in Italy, European Union parliamentary elections in May and weakness in the banking system. Europe took the brunt of the OECD downgrades with the U.K.'s 2019 forecast cut to 0.8% from 1.4%, and Germany's to 0.7% from 1.6%.

In March, the Organization of Economic Cooperation and Development took a meat cleaver to European growth forecasts.

The one silver lining is that economic weakness—together with the shocking drop in stocks that started in October—forced the Fed to abandon quantitative tightening and adjust its plans to unwind its balance sheet more slowly. The European Central Bank (and other central banks) are likely to follow the lead of the U.S. Federal Reserve. Whether or not central bank intervention will reverse the economic slowdown remains to be seen, as economic data continues to be largely negative.

Sources: Bloomberg, International Monetary Fund, Organization of Economic Cooperation and Development, U.S. Department of the Treasury, Bailard.

Market Performance
As of March 31, 2019

U.S. Interest Rates	6/30/2018	9/30/2018	12/31/2018	3/31/2019
Cash Equivalents				
90-Day Treasury Bills	1.92%	2.20%	2.36%	2.39%
Federal Funds Target	2.00%	2.25%	2.50%	2.50%
Bank Prime Rate	5.00%	5.25%	5.50%	5.50%
Money Market Funds	2.03%	2.13%	2.42%	2.46%
Bonds				
30-Year U.S. Treasury	2.99%	3.21%	3.02%	2.82%
20-Year AA Municipal	3.42%	3.65%	3.66%	3.17%

Source: Bloomberg, L.P.

Global Bond Market Total Returns (US$) through 3/31/2019	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
U.S. Bonds				
BofA Merrill Lynch U.S. Treasury Index	2.17%	4.83%	2.17%	4.24%
BofA Merrill Lynch Agency Index	1.82%	3.82%	1.82%	3.77%
BofA Merrill Lynch Corporate Index	5.00%	4.96%	5.00%	4.94%
BofA Merrill Lynch Municipal Index	2.94%	4.57%	2.94%	5.21%
International Bonds				
Citigroup non-US$ World Government Bond Index, fully hedged	3.10%	5.46%	3.10%	5.12%

Sources: Bloomberg, L.P., Morningstar Direct

Global Stock Market Total Returns (US$) through 3/31/2019	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
U.S. Stocks				
Dow Jones Industrial Average Index	11.81%	-0.84%	11.81%	10.09%
S&P 500 Index	13.65%	-1.72%	13.65%	9.50%
NASDAQ 100 Index	16.89%	-2.70%	16.89%	13.36%
Morningstar Small Value Index	12.48%	-9.11%	12.48%	-1.08%
International Stocks				
MSCI Japan Index, net dividends	6.66%	-8.52%	6.66%	-7.84%
MSCI Europe Index (includes UK), net dividends	10.84%	-3.26%	10.84%	-3.72%
MSCI EAFE (Europe, Australasia, Far East) Index, net dividends	9.98%	-3.81%	9.98%	-3.71%

Sources: Bloomberg, L.P. and Morningstar Direct

Real Estate Total Returns (US$) through 3/31/2019 (estimated)	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
NFI-ODCE Index*	1.76%	3.55%	1.76%	7.88%

Source: The National Council of Real Estate Investment Fiduciaries
**Since the first quarter 2019 NFI-ODCE Index return is not yet available, we have estimated it by using the previous quarter's return. This estimate is used for all time periods presented.*

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

Bailard Investment Strategy: A Strategic and Tactical Asset Allocation Overview

U.S. Bonds

Bond yields have remained near historic lows and overvalued relative to the low level of underlying inflation. The core inflation rate (excluding food and energy) has fallen to approximately 2.0% year-over-year and, with the 30-year bond yield at 2.82%, the real yield stood at 0.89% as of March 31, 2019. For the 30 years prior to QE, the historical real yield on the 30-year Treasury had averaged 3.9%. Whether you look at real yields from a long or short-term perspective, bonds appear overvalued. We have been underweight bonds since 2009, preferring real estate and stocks over bonds. Since 2009, bonds have basically earned their coupon (with yields averaging 3.3%), while real estate and stocks have earned double-digit returns. As economic activity and inflation slowed, and the Fed pivoted to a more accommodative position, bond yields once again headed lower.

U.S. Stocks

U.S. stocks have been volatile since last October: first tumbling 20% late last year as the Fed tightened and then rallying 20% as the Fed pivoted to a more accommodative position in 2019. Year-over-year, domestic stocks were relatively unchanged and, after all the churning, valuations have slipped from being extremely overvalued to moderately overvalued. Last year, relative valuations improved as after-tax earnings received a boost from the sharp reduction in the corporate tax rate. The tax cut provided a one-time boost to earnings but raised the earnings baseline. Given the relatively high starting point for valuations and a return to slow growth, stock returns over the next few years are likely to be lower than the long-term average. We are eight years into an economic recovery and ten years into a bull market; some caution is warranted. However, fundamentals have not driven the equity markets in some time, instead the markets have been buoyed primarily by central bank liquidity.

> We are eight years into an economic recovery and ten years into a bull market; some caution is warranted.

International Stocks

Both developed and emerging international stocks continued to underperform U.S. stocks in the first quarter. International stocks tend to move in long, five to seven-year cycles of underperformance, followed by long periods of outperformance. The current period of underperformance is getting long in the tooth. With international stocks looking like a much better value than U.S. stocks, it is tempting to move to an overweight position in international stocks but we have resisted the urge. International stocks are deeply undervalued in both an absolute and relative sense compared to the U.S. For example, the price-to-book ratio for the U.S. stocks is currently 3.4x, while developed international indices are almost 50% cheaper at a 1.6x price-to-book. International stocks in developed markets yielded 3.5%, substantially higher than the 1.75% yield from domestic stocks. While international equities are undervalued relative to their U.S. counterparts, global risks remain elevated: global debt continues to explode higher, global growth is deteriorating, Brexit is yet to be resolved and Italy remains a problem for the EU.

Real Estate*

Real estate has continued to serve portfolios well and our long-term decision to reduce bonds in favor of real estate has been fortuitous. Real estate has been a better diversifier than bonds over that time. With the exception of the retail sector, real estate fundamentals remain constructive. And although capitalization rates (the relationship between a property's operating income and its market value) have drifted lower, real estate values still look compelling relative to stocks and bonds. The greatest risk to real estate is if the Fed loses control of interest rates and some of this compelling relative value evaporates.

Tactical Asset Allocation Strategy

Our tactical asset allocation process incorporates a momentum-based model that quantitatively ranks thirteen major asset classes and then tends to hold four of the thirteen. TAA is designed to be both opportunistic and defensive in response to the investment markets on a short-term basis.

**Real estate and alternative investment strategies have significant risks and are not appropriate for all investors.*

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the 9:05 is produced by the Asset Management Group of Bailard, Inc. The information in this publication is based primarily on data available as of March 31, 2019 and has been obtained from sources believed to be reliable, but its accuracy, completeness and interpretation are not guaranteed. We do not think it should necessarily be relied on as a sole source of information and opinion.

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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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