the 9:05 Bailard's Quarterly Review of Economic and Market Developments* Q1 2020

The Strength of our Values in Unprecedented Times

As we turn from one quarter to the next, it at once feels like time is passing both quickly and slowly. Thinking back six weeks, we were dining at restaurants, throwing birthday parties, and strolling through grocery store aisles. That already feels like ages ago, and that kind of normalcy now itself seems novel. We at Bailard are familiar with dynamic conditions from frequently-changing market signals to slower-moving economic indicators. But this is different. Social and fiscal policies are evolving daily around a health crisis that goes beyond the markets and the economy to our homes and loved ones.

Just six months ago, we wrote in the 9:05 *about our firm-wide values: accountability, compassion, courage, excellence, fairness, and independence. These values have always been core to who we are and today, in these testing times, they are more important than ever.*

Bailard, with our clients, has overcome numerous economic shocks over the 50 years since our founding. And while 2020 has brought us extraordinary, previously-unthinkable times, we are confident we will overcome this too. Within the pages of this quarter's 9:05, you'll find the same relevant, measured perspective on the markets and economy that you have come to expect from your Bailard team. We continue to take a long-term perspective on the market, yet are mindful of short-term opportunities to minimize losses or even uncover possible gains. And, as always, we work tirelessly to ensure the needs of our clients are first and foremost.

This unprecedented health crisis presents a unique challenge for we, as humans, thrive on social connection. While the pandemic has in some cases brought generations of families together under one roof, in other cases we are separated and far away. And we cannot see our friends (or at least, not in-person). With that in mind, we thought to share a little of our experience, and you'll find the back cover of this newsletter offers a peek into our lives as we shelter-in-place.

It shouldn't have come as a surprise, but we are so pleased to witness the strength of our team during this time. We hope you share in the pride that we feel as our colleagues exhibit not only the excellence you might expect but exceptional compassion for our clients and our communities. We thank you for your partnership and, more importantly, wish safety and good health for you and your families. If you have any questions or concerns and want to discuss more, please reach out to us.

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 11.*

Chat with the CIO: Heading to Negative Territory?

While we have been watching international fixed income markets move towards negative rates, is it possible the U.S. will follow suit? In this quarter's Chat with the CIO, Eric P. Leve, CFA (Chief Investment Officer) and Linda M. Beck, CFA (Director of Fixed Income) discuss the likelihood of ultra-low or negative rates in the U.S.

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Eric P. Leve, CFA: We have been watching international fixed income markets move to negative interest rate monetary programs. Negative rates were first used in Denmark and Sweden in the years after the 2008-2009 Great Financial Crisis (GFC), and then became more widespread as the European Central Bank (ECB) started charging -0.10% on deposits in 2014.

When interest rates are negative, it creates an upside down world where, instead of savers being rewarded and borrowers paying money, savers are penalized and borrowers get paid to borrow money. In Denmark, individuals can now even originate negative interest mortgages. This means homeowners in Denmark pay back lenders *less money* than they borrowed! Although this sounds appealing to individuals with mortgages, negative yields place a strain on investors dependent on positive returns from bonds, including retirees. Linda, can you remind us how (and why) a bond could have a negative yield?

Linda M. Beck, CFA: Remembering the inverse relationship between a bond's price and its yield, an investor would have a negative yield if he or she paid more for a bond than the combination of its face value (relative to par value or 100) and the total amount of interest paid over its remaining life. In this instance, the investor loses money over the life of the bond. Here is an illustration of a positive and negative yielding bond:

1) Positive yield: Pay $103 for a one-year Treasury bond with a 4% coupon payment. This investor would receive an approximately 1% return over the life of the investment.

2) Negative yield: Pay the same $103 for a one-year Treasury bond, but with a 1% coupon. This investor would suffer an approximate -2% loss on the investment.

It is not uncommon for investors to pay premiums for bonds, and it can frequently be a prudent move because the coupons are so much higher than yields. In the municipal bond market, 5% coupons remain the standard even though yields have not been that high for 20 years. Even when bonds are first issued, investors must pay a premium to purchase them. Buying premium municipal bonds also offers investors protection against the IRS's Market Discount Rule. Explaining this rule is beyond the scope of this article, but it essentially reduces the tax advantage of municipal bonds if they are purchased in the secondary market at a discount. Buying bonds at a premium provides investors with a cushion before the bond's price would fall below 100 (thus becoming a discount).

Historically, it has been extremely rare in the U.S. for prices to become so elevated that yields turn negative.

Eric: We've seen central banks around the world move to negative rate policies as a way to boost economic activity. Theoretically this would encourage banks to lend or invest excess funds rather than pay the penalty on the cash held in central bank accounts. Monetary authorities in Europe moved to a -0.10% rate in 2014 to fend off the risk of deflation, as well as to promote growth that had been languishing since the GFC and ensuing recession. The European Union's (EU) difficulty in coordinating a fiscal response increased the need for monetary stimulus. Europe's negative rate policy was then soon followed by Japan, which was trying to avoid falling back into the stagflation environment that had plagued it for the two prior decades.

The negative rate programs were supposed to be temporary, and used to prevent a deflationary spiral of weak spending, dropping prices, falling economic growth, and deteriorating profit margins. However, most countries have not had strong enough economic growth since then to work their way out of the negative rates. In fact, levels have become increasingly negative with the ECB's official rate currently at -0.50%. Because the official rate is a benchmark for all borrowing costs in the EU, the negative yields began spilling over into other government and corporate bonds. There are now approximately 500 million people living in a negative rate environment. Total negative-yielding debt had peaked last year, in August, at a staggering $17 trillion, more than 28% of the global debt market.

So Linda, with the Federal Reserve's (the Fed) recent dramatic move to a near-zero Federal Funds rate in response to the coronavirus crisis and the massive economic shutdown, do you think the U.S. will also go negative?

> Importantly, negative rates have often led to perverse incentives.

Linda: The Fed has communicated it doesn't believe a negative Fed Funds rate would be beneficial for our financial system. Although it is difficult to determine exactly the full ramifications of a negative rate environment, many economists and members of the Federal Reserve believe it can be detrimental to the financial system, particularly if such policies persist for long periods of time. Even the ECB, which had a -0.50% rate before the crisis, chose to not yet make their rate more negative in response to the current crisis.

Importantly, negative rates have often led to perverse incentives. European banks have been hesitant to pass along the full negative charges assessed by the ECB to its depositors. Since banks did not pass through the full negative rate costs to their deposit base, some interest margins declined and profits were squeezed. This caused banks to raise fees and/or look for other ways to boost earnings. These indirect costs add to borrowing costs, offsetting some of the stimulus aimed by the negative rate policy. Negative rate policies can also erode the capital position of banks, which in turn can lead to higher borrowing costs. This is a path the Fed would prefer not to take.

Now that the Fed is close to its zero bound, it has focused on other extraordinary measures rather than engaging in a negative rate policy. Many of these tactics were also used in the GFC. The Fed has returned to employing a number of weapons in its arsenal, including buying massive amounts of Treasury and mortgage-backed securities, engaging in repo operations, encouraging banks to borrow at the discount window, buying top tier Commercial Paper from issuers, providing liquidity to money market funds (including top-rated commercial deposits and municipals), extending dollar liquidity to foreign central banks, providing a funding backstop for some investment-rated corporate bonds, and creating a special purpose facility to purchase corporate bonds and corporate ETFs in the secondary market. All of these measures were created to promote bond market liquidity and preserve the smooth functioning of the bond and credit markets.

Eric: So if the Fed keeps the official funds rate at zero, does that mean we won't see negative rates on our shores?

Linda: The Federal Funds rate is the benchmark rate for all borrowing costs, so having a zero negative bound does help keep other instruments from dropping into the negative yield territory. However, there is another force that can drive rates below zero: the secondary market, where prices adjust according to supply and demand. When demand exceeds supply, it can drive prices high enough to cause negative yields in some cases. In the rush to short-maturity safe assets during March, prices for some Treasury bills increased by so much that yields became negative on March 18 and stayed negative for approximately a week (at which point they returned to slightly positive through quarter-end). The negative yields occurred on the short maturities: Treasury bills with six months or less to maturity. This has happened for limited periods in previous times of distress as well. Most bonds that have credit risk, such as municipal or corporate bonds, typically trade at higher yield levels and are less likely to be pushed into negative yields. In fact, in the recent market environment, credit spreads have widened out such that securities are offering more attractive values than they have for many years.

Eric: Thanks for a fascinating discussion, Linda. Insightful, as always! While we share the perspective that the likelihood of negative interest rates may not be increasing, it will no doubt be interesting to monitor both the actions of the Fed and the reactions of the market.

However, there is another force that can drive rates below zero: the secondary market, where prices adjust according to supply and demand.

Long-Term Opportunity in Biotech

Matt Johnson, Vice President of Healthcare Investments

While the coronavirus outbreak has propelled biotech to the forefront, this is a sector Bailard has been watching for years. Here we discuss opportunities and considerations in the sector, and how they might promote long-term good for investors and hopefully the world at-large.

Principles of Biotechnology Investing

Social distancing has altered our daily lives in dramatic fashion. Familiar routines revolving around family, friends, work, and leisure are now nearly unrecognizable from just a month ago. While we certainly wish we didn't find ourselves in the midst of a pandemic wreaking havoc on our health and economy—as seasoned small and microcap-focused biotech investors—we are familiar with boom-bust investing environments and their associated volatility.[1] From the early days of the biotechnology industry, we've seen tech bubbles, wars, hepatitis C cures, multiple bouts of financial crises and drug pricing tweets, just to name a few!

We have also seen dramatic legislation move markets. A few months ahead of the implementation of the Affordable Care Act, the $17 billion Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 was passed to jumpstart the adoption of Electronic Medical Records. As a byproduct, the HITECH Act fostered the genesis of numerous companies working to connect consumers with their own healthcare.

Regardless of underlying currents, in our opinion, several key investment theories persist. These important principles include:

- Cash is King
- Cash is Queen
- Cash is… everything
- Seasoned management teams that understand the three principles above are highly valued
- Science and technologies that are patient-driven rule the day
- Pay a premium for clinically-meaningful data
- Follow the legislation

Cash, or rather 'access to cash,' is the lifeblood of research and development focused healthcare companies that are often years away from realizing revenue of an approved product. Management teams of these earlier-stage companies face a near-constant challenge to raise adequate funding from prospective investors in order to reach value-creating milestones.

Cost estimates to develop a single drug from inception through to FDA approval are topping out at nearly $3 billion.

It is worth noting that a great drug can be ruined by a poor management team and the stakes these days are high. Cost estimates to develop a single drug from inception through to FDA approval are topping out at nearly $3 billion. And a ten-year study just published this March found a median cost of $985 million in research and development for bringing a single drug to market.[2] This analysis accounted for the expenditures of failed clinical trials as well. In our opinion, investing in management teams that have successfully navigated these ebbs and flows of capital market cycles is an important driver for future success. In today's environment, we believe well-capitalized companies, platform-based technologies that can be financed via non-dilutive partnerships, or companies with late stage assets that are approaching near-term profitability, will be sought after.

1 *See repeatedly-relevant 2012 Bailard white paper, The Third Wave of Biotech: An investment rational for the timely investing in small cap healthcare securities.*

2 *Wouters OJ, McKee M, Luyten J. Estimated Research and Development Investment Needed to Bring a New Medicine to Market, 2009-2018. JAMA. 2020;323(9):844–853. https://jamanetwork.com/journals/jama/article-abstract/2762311*

In addition to the cash component, in our view, attractive companies exploit a new type of technology that results in outsized treatment effects. Whether it be a specialized drug targeting a driver mutation in a highly-defined population or perhaps using genetic editing tools to correct a devastating disease, meaningful changes in outcomes that will have a dramatic impact on patients' lives should bring value from an investment point of view. And it is impossible to diminish the importance of the value from the patients' perspective. At the end of the day, the scientists, caregivers, family members... all of us... are seeking a better way of life. We believe novel medicines will play a role in keeping people healthy to enjoy their families and friends, even if those current moments are now occurring over video chat!

A savvy management team doesn't just raise enough cash at the right time and have a knack for identifying unique technologies; it must also implement a robust operation from research bench to bedside. When trials are run with clear endpoints and expectations in mind, operations are honed and timelines are optimized. When shortcuts are taken or important questions are left unanswered in the early stages of development, risks increase and muddied answers often result as the data envelopes are opened. Investing in clear, rationally-designed trials may cost more, but, if the data succeed, there are greater odds of commercialization success. The clear signal the data have shown allows for achieving the ultimate value from a product.

Incentives Creating Opportunity

Finally, the healthcare sector is a highly-regulated space and, like any market where there are incentives, over time you may see those incentives create opportunity for investment. In our universe of companies, the purview of the Food and Drug Administration (FDA) rests on drugs, devices, and certain diagnostic tests that require the Agency's approval prior to marketing the product. The FDA has become highly capable of utilizing incentives such as the Breakthrough Therapy Designation and Priority Review Vouchers for expediting review times for certain products. These types of tools, along with leaps in scientific breakthroughs, have been effective at increasing product approval rates and reducing drug development time in some instances.

A quick primer on FDA definitions:

A **Breakthrough Therapy Designation** is for a drug that treats a serious or life-threatening condition and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement on a clinically significant endpoint(s) over available therapies.

The FDA awards **Priority Review Vouchers** (PRV) to drug sponsors that develop drugs for tropical diseases or rare pediatric diseases or to use as medical countermeasures. The PRV—which can be sold to another drug sponsor—may be redeemed later to receive priority review from FDA with a targeted review time of six months, rather than the ten-month standard review, for a drug application of the PRV holder's choice.

In response to the COVID-19 pandemic, we have seen Congress pass the Coronavirus Aid, Relief, and Economic Security (CARES) Act into law. Among many other incentives, the CARES Act outlines $11 billion to support research and development of vaccines, therapeutics, and diagnostics to prevent or treat the effects of coronavirus.

Over the longer term, we should expect renewed interest and creative payment systems to incentivize companies and investors to develop antibiotics, antivirals, and vaccines for little known threats that could come along as swiftly as COVID-19. Let's hope the CARES Act incentives not only alleviate our current debacle but help improve our response to future threats as well.

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

Art Micheletti, Economic Consultant

Economics has historically been a rough, but fascinating, tool to gauge prospects for the equity markets. In our current COVID-world, realities change faster than almost all economic data can measure, reducing their value as short-term drivers of markets. Likewise, data points that are generally considered longer-term indicators give little information since the breadth and length of the current shutdown is so uncertain. Even shocking data can be easily discounted. To wit, prior to the end of the first quarter, the weekly initial jobless claims number had never breached 700,000 (it came close in 1982 and again in 2009). The combined tally for the final two weeks of March was a pip below ten million. But does that mean much? As part of the $2 trillion CARES Act, unemployment benefits have expanded dramatically, giving some employers more incentive to lay off workers. From a longer-term view, once COVID-induced shutdowns are reversed, we can expect many of these workers to get their jobs back. So, while economic data is noisier than ever, it contains kernels of reality. Although the weatherman is only occasionally right, if he calls for rain the next day, we're likely to have our umbrellas at the ready. And so it is with economics.

U.S. Economy

In the last edition of *the 9:05*, we again projected continued slow growth on the back of stable consumption, while noting some green shoots emerging from the housing sector. We also reiterated concern about growing deficits, debt accumulation, and liquidity shortfalls that were beginning to appear in financial markets. These imbalances were already showing up in the Treasury repurchase (repo) market, which is used by the Fed to boost liquidity. The Fed's balance sheet had expanded by $1 trillion in the fourth quarter of 2019, and this was before the most recent monetary actions.

That was then...

> The coronavirus is the pin that popped the stock market balloon and further exposed additional cracks in the financial system.

If you fell asleep after Thanksgiving and woke up this March, you found an almost unrecognizable alternative landscape. Late last year it would have seemed unfathomable to see major cities quarantined, the global economy ground to a halt, businesses shuttered, global travel restricted, borders closed, and citizens confined to their homes. It's not surprising that stocks dropped 30% in just over a month (from 2/19 to 3/20/2020, as measured by the S&P 500 Index), the fastest decrease of that magnitude ever witnessed.

The coronavirus is the pin that popped the stock market balloon and further exposed additional cracks in the financial system. Credit spreads widened dramatically in the first quarter, as the economy shut down and the outstanding amount of distressed debt spiked higher. Slowing economic activity and an oil price war pushed oil down to nearly $20 per barrel as of quarter-end. Combined with evaporating margins, energy sector debt has fallen to distressed levels. In addition, leveraged loan pricing is tanking, corporate bond ratings are being downgraded, and corporate cash flow is likely to contract. Some of the biggest risks to the financial system are if collateral values behind loans, margin debt, and leveraged loans continue to deteriorate.

The conventional wisdom is that the economy will be fine once we get through the coronavirus shutdown, with many calling for a V-shaped recovery. We cannot predict how steep or long the economic slide will be, let alone what kind of recovery will follow. James Bullard, President of the Federal Reserve Bank of St. Louis, stated that second quarter GDP could decline as much as 50%, sending the unemployment rate to 30%. Goldman Sachs has projected a 30% decline. Whatever the number, it will probably be the biggest decline ever.

> With interest rates now at zero, the Fed is running out of monetary policy measures and is resorting to its most extreme tool: printing money.

In March, the Fed took unprecedented and staggering steps to help support the economy and markets. It cut the Fed Funds rate to zero, announced a $750 billion quantitative easing (QE) program, and expanded dollar swap lines with other central banks to boost liquidity. Just prior to the end of the first quarter, the Fed called for unlimited QE, taking a page from former ECB President Draghi's "whatever it takes" playbook. With interest rates now at zero, the Fed is running out of monetary policy measures and is resorting to its most extreme tool: printing money.

While the Fed has been increasing liquidity, support by way of fiscal policy is also on the way. Congress passed a $2 trillion stimulus package that includes $500 billion to back loans/assistance for large corporations, $350 billion for small business loans, $150 billion to state and local governments, and $117 billion for hospitals. This is in addition to $300 billion of direct payments to households in the form of $1,200 per individual and $500 per child. There will also be increases in unemployment benefits, as well as support for the domestic airline industry. These stopgap measures are crucial but they will leave a longer-term legacy: a budget deficit (already back over a trillion dollars) now primed to explode higher.

As in 2008 and 2009, the Treasury Department is enacting an alphabet soup of new programs to support the economy, while hopefully avoiding large negative externalities. These programs include:

- CPFF (Commercial Paper Funding Facility): buying commercial paper from the issuer
- PMCCF (Primary Market Corporate Credit Facility): buying corporate bonds from the issuer
- PDCF (Primary Dealer Credit Facility): provides funding to primary dealers of government securities
- MMLF (Money Market Mutual Fund Liquidity Facility): a lending and asset purchase facility for money market funds to help meet redemptions and avoid cash equivalency deposit asset sales that would cause funds "to break the buck"
- TALF (Term Asset-Backed Securities Loan Facility): funding backstop for asset-backed securities
- SMCCF (Secondary Market Corporate Credit Facility): buying corporate bonds and bond ETFs in the secondary market and
- MSBLP (Main Street Business Lending Program): Details are to come, but it will lend to eligible small and medium-size businesses, complementing efforts by the Small Business Association.

By law, these actions are outside of the Fed's traditional mandate. Its core responsibility is simply to purchase and lend against government-guaranteed securities. To pursue the suite of acronyms described above, the Fed will finance a special purpose vehicle (SPV) for each program. The Treasury will make equity investments in each SPV using the Exchange Stabilization Fund and take a "first loss" position. The Treasury, not the Fed, will be buying securities and backstopping loans.

However, with this bear market arriving so quickly and painfully, many believe the bounce off the bottom will be just as sharp. In our opinion, investors should continue to be cautious here: bear markets typically don't just start and immediately stop. Based on Bloomberg data, evaluating the eleven bear market periods since 1926 reveals an average length of 1.3 years and an average cumulative loss of 38%.

The coronavirus has yet to run its course and we don't know how long "normal" life will be disrupted. Nor do we know the full extent of damage or the size of bailouts needed for financial markets or, most importantly, how investors will react. We have historically had powerful bounces off market bottoms, which are normal after a sharp decline. However, in 2000 and 2008, initial rallies faded and became bear market traps for investors. The biggest bear market trap was in 1929 as the Dow Jones Industrial Average dropped 48% in the first two months and then rallied for four months. The Dow rose 50% off that low before renewing its downward slide, eventually falling 89% before bottoming in July, 1932. Hopefully, like in previous episodes, forward-looking markets will turn long before the economic data.

Regardless, we believe Bailard should pay close attention to what markets are telling us, not be wedded to any position or outlook, and keep focused on investors' risk tolerances. Portfolio diversity and flexible allocation should help us navigate this unprecedented environment.

International Economies

Like the U.S., control of the pandemic is at the top of most countries' agendas, with central bank credit support and balance sheet expansion pledged to contain the financial impact of the coronavirus. Fiscal packages to support households and business are getting bigger and bigger.

China

The People's Bank of China (PBOC) and Chinese regulators are trying to boost bank lending to companies impacted by the coronavirus outbreak and also lower financing costs, particularly for smaller, private companies and agriculture. Measures include ensuring that banks have sufficient liquidity by increasing the PBOC's relending quota (that is, money lent to other banks). Regulators have lowered bank reserve requirements in an effort to boost private lending, which has collapsed. Other measures being discussed include medium-term lending facilities (akin to the U.S.) to support the financial system. China could also use its existing supplementary lending facility to fund loan extensions, tax cuts, rent cuts, and interest payments. Given China's massive debt and inflation rising to 5%, financial risk remains high.

Europe

European economic data leaves little doubt that Germany and the eurozone are already in recession. The question is, how deep and that is unknowable until the pandemic is reversed. The former head of the ECB is urging a "war-like" expansion in debt and liquidity to banks.

In March, the ECB announced the creation of a 750 billion euro Pandemic Emergency Purchase Programme. This is a bailout fund available to euro-area members to fund public finances. The ECB is also discussing activating the Outright Monetary Transactions (OMT) program, which was designed in the summer of 2012 during Draghi's "whatever it takes" monetary response to the region's debt crisis. Effectively, this could provide unlimited liquidity to sovereign debt.

OMT received pushback from Germany, where it was challenged in German courts and never utilized. The German Bundesbank's long memory of hyperinflation and EU law against monetary financing of governments will need to be overcome to move to OMT.

Japan

Over the last decade, Japan has shrunk the universe of Japanese bonds as the Bank of Japan (BOJ) effectively nationalized the financial markets. The BOJ now owns government bonds totaling 100% of the country's GDP. Something unusual is happening: while the BOJ is buying everything in sight, currency dealer demand for dollars is preventing them from selling. Currency dealers are using their Japanese Government Bonds as collateral. Just because there are willing buyers does not mean there are willing sellers on the other side.

The BOJ also created a new loan program to provide one-year, zero interest rate loans to financial institutions in order to boost lending to firms that were hit by the coronavirus. They are pledging to buy risky/failing assets, including ETFs. The BOJ said it will double its ETF purchases, aggressively increasing the program to purchases of $112 billion annually.

Like the U.S., the BOJ is keeping the overnight rate for lending to banks at 0% and a facility to purchase commercial paper and corporate debt. BOJ President Kuroda, in an emergency statement, said that the BOJ will make every effort to provide ample liquidity and try to ensure stability of financial markets.

Going into the crisis, Japan's economy was already slowing rapidly, with October-December quarterly GDP falling an annualized real rate of 7.1% due to an increase in sales taxes. The pandemic has only made things worse.

Broadly, this may be just the start of extraordinary measures by global central banks and fiscal authorities.

Market Performance
As of March 31, 2020

U.S. Interest Rates	6/30/2019	9/30/2019	12/31/2019	3/31/2020
Cash Equivalents				
90-Day Treasury Bills	2.09%	1.81%	1.55%	0.09%
Federal Funds Target	2.50%	2.00%	1.75%	0.25%
Bank Prime Rate	5.50%	5.00%	4.75%	3.25%
Money Market Funds	2.35%	2.00%	1.71%	1.08%
Bonds				
10-Year U.S. Treasury	2.01%	1.66%	1.92%	0.67%
10-Year AA Municipal	1.82%	1.73%	1.85%	2.40%

Source: Bloomberg, L.P.

U.S. Bond Market Total Returns (US$) through 3/31/2020	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
U.S. Bonds				
Bloomberg Barclays U.S. Treasury Index	8.20%	7.34%	8.20%	13.23%
Bloomberg Barclays U.S. Corporate Index	-3.63%	-2.49%	-3.63%	4.98%
Bloomberg Barclays U.S. Aggregate Index	3.15%	3.33%	3.15%	8.93%
Bloomberg Barclays U.S. 1-15 Municipal Blend Index	-0.50%	0.31%	-0.50%	3.31%

Source: Bloomberg, L.P.

Global Stock Market Total Returns (US$) through 3/31/2020	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
U.S. Stocks				
S&P 500 Index	-19.60%	-12.32%	-19.60%	-6.99%
Morningstar U.S. Small Value Index	-39.40%	-34.08%	-39.40%	-34.57%
Morningstar U.S. Small Growth Index	-21.45%	-14.29%	-21.45%	-16.07%
Morningstar U.S. Large Growth Index	-11.51%	-2.54%	-11.51%	2.29%
Morningstar U.S. Large Value Index	-24.75%	-19.09%	-24.75%	-13.20%
International Stocks				
MSCI EAFE (Europe, Australasia, Far East) Index, net dividends	-22.83%	-16.52%	-22.83%	-14.38%
MSCI Emerging Markets, net dividends	-23.60%	-14.55%	-23.60%	-17.69%

Sources: Bloomberg, L.P. and Morningstar Direct

Alternatives (US$) through 3/31/2020	QUARTER	SIX MONTHS	YEAR TO DATE	ONE YEAR
NFI-ODCE Index*	1.51%	3.04%	1.51%	5.44%
Gold Spot	3.95%	7.11%	3.95%	22.48%
WTI (West Texas Intermediate) Crude Oil	-66.46%	-62.12%	-66.46%	-65.95%

Sources: Bloomberg, the National Council of Real Estate Investment Fiduciaries
**Q1 data not yet released. The first quarter return assumed to be same as fourth quarter 2019 return.*

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

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*.

DISCLOSURES

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, 2020 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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NEWSLETTER PRODUCTION

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Bailard

Being a values-driven firm is more important than ever.

In times of need, it is great to see our employees, clients, and communities coming together. Please enjoy a peek inside the last few weeks of Bailard as we all shelter-in-place and work tirelessly on behalf of what matters most.

"Serving as that loyal ear with compassion and patience anytime day or night, regardless of the topic. We're all truly in this together."

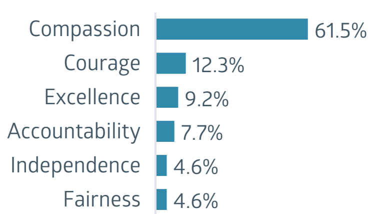
—Stacy Pearl
VP, Investment Counselor

"Our value of excellence is highly pertinent—holding ourselves to the same standards as we would if the world were 'normal'."

—Dan McKellar, CFA
VP, International Equity Research

Average daily minutes on Zoom increased 580% from the first half of March compared to the second half!

Employee poll: which value feels the most applicable right now?



"The value that stands out to me the most right now is compassion—compassion for our clients and each other to make sure we are all faring well during this crisis. I am so proud that in my nearly 40 years at the Firm, this value has stood the test of time through the ups and downs. It's always been a cornerstone of who we are, and these recent difficult times continue to prove it."

—Burnie Sparks, CFA, President

Bailardians became barbers and hairstylists, homeschool teacher extraordinaires, guitarists, gardeners, puzzle players, and master chefs, just to name a few.

7 food banks

*In March, the Bailard Foundation and employees made donations to seven Northern California food banks.**

**The Bailard Foundation board of directors is led by chairwoman Terri Bailard, widow of firm co-founder Tom Bailard, and features both select friends of Bailard, Inc. and employees.*

Bailard. Values-driven.

ACCOUNTABILITY · COMPASSION · COURAGE · EXCELLENCE · FAIRNESS · INDEPENDENCE