TIFF INSIGHTS

The Inflation Outlook for Non-Profit Portfolios

Matt Hoehn, Director – Member Strategy
Samantha Gross, Associate Director – Member Strategy
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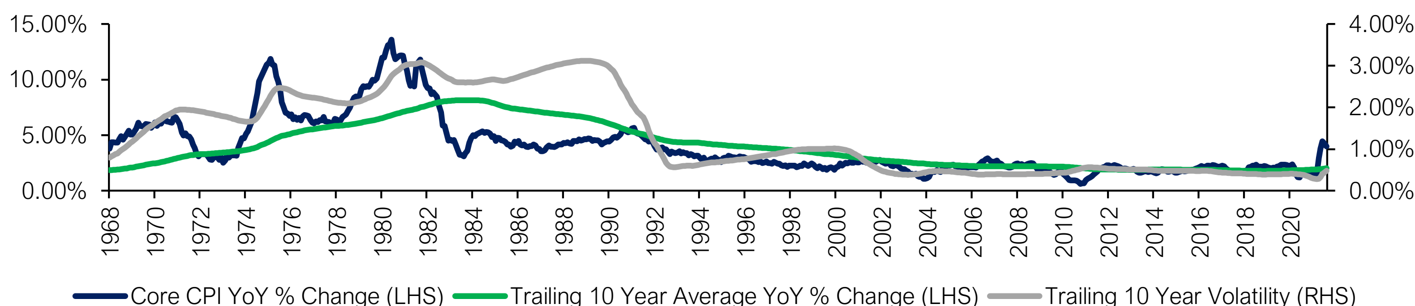
We have seen global prices rise sharply, but is it time for nonprofits to start worrying about inflation? TIFF shares our views on the inflation environment and how we're positioning our portfolios.

Introduction

For the first time in decades, annual US inflation is meaningfully exceeding 2%. Since the spike in prices began in April 2021, the 6-month average year-over-year inflation rate has climbed to nearly 4%, significantly above the 2% target set by the Federal Reserve (the Fed)[1]. This is in stark contrast to recent experience, as inflation has steadily declined and become more stable since 1982. As Exhibit 1 below shows, the 10-year average inflation rate has fluctuated around 2% since the late 1990s and the volatility of inflation has decreased significantly.

Exhibit 1: Long-Term Inflation, The Emergence of the Low and Stable Regime



Source: US Bureau of Labor Statistics and TIFF calculations

This regime of benign inflation and the associated secular decline in interest rates has been an important driver of stable economic growth, robust earnings growth, and strong financial market returns. We would argue that the inflationary environment during this period:

- Contributed to the US federal government's willingness to pursue stimulative fiscal policies, perhaps most notably in the aftermath of the Global Financial Crisis (GFC) and more recently in response to COVID-19.
- Gave the Fed the flexibility to conduct highly accommodative monetary policy to stave off economic slowdowns.
- Helped drive significantly lower borrowing costs throughout the economy.
- Paved the way for longer economic expansions and less frequent recessions.[2]

[1] Unless otherwise stated, we will quote US core CPI in this paper, sourced from The US Bureau of Labor Statistics (BLS). The 6-month average we quote since the spike started is for April 2021 – September 2021.
[2] Economic expansions averaged 8.6 years for the period compared to a 3.7-year average for the four decades prior. Additionally, the period had just four recessions as compared to eight recessions in the four decades prior (Source: US National Bureau of Economic Research).

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- Contributed, along with other variables, to generally higher asset valuations.[3]

Given the many benefits that low and stable inflation has bestowed upon us, it is understandable that many market participants are highly focused on the risk of this regime coming to an end. Will the recent spikes in inflation prove transitory as the Federal Reserve and Biden administration have suggested? Or are they indicative that something more fundamental has changed? If inflation persists at higher levels, will it disrupt this virtuous cycle of economic growth, earnings growth, and financial market returns? In this paper we will:

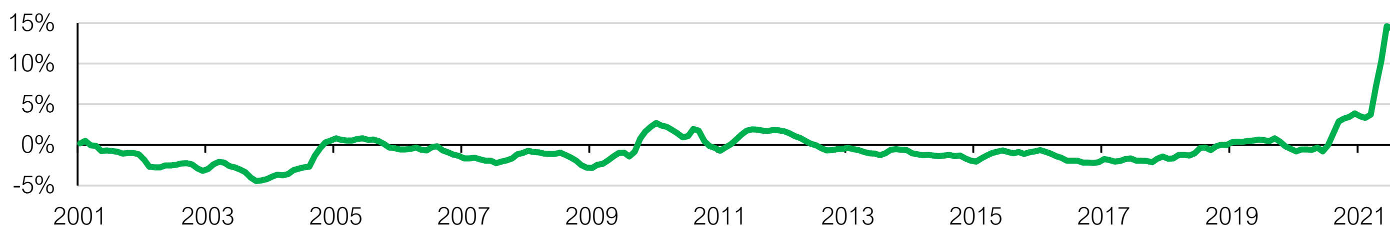
- Detail the five dynamics that we expect will drive inflation outcomes in the future, namely: 1) long-term secular deflationary forces; 2) fiscal stimulus; 3) monetary policy; 4) supply bottlenecks; and, 5) inflation expectations.
- Explain our view that the recent spikes are likely to be transitory in nature, although they may linger a bit longer than widely expected. We also will outline why we do not believe that a modest increase above the Fed's 2% target would be overly problematic for the economy or financial markets.
- Discuss how we are expressing our views in terms of portfolio positioning.

1) Long-Term, Secular Disinflationary Forces: Technology and Globalization
Technological development is inherently deflationary in that it allows production of more goods and services with less labor and capital, giving firms the ability to reduce prices to gain market share. Further, the advent of modern communication technology (e.g., the internet, smart phones, etc.) has made consumers more discerning in selecting products and services, thereby causing greater competition, and putting further pressure on prices.

Technology has also helped to catalyze the move toward a more interconnected world. Globalization had been growing quickly for decades prior to the recent past.[4] Over this time period, billions of workers entered the global labor pool. The fall of the Soviet Union in 1991 and the entrance of China into the World Trade Organization (WTO) in 2001 were two seminal moments in this era, but the workers of many smaller countries also became increasingly integrated over time. This abundance of workers, combined with a decline in union membership,[5] muted the bargaining power of laborers in both the US and western Europe. Utilizing this less costly labor, the latest technology, and global supply chains, firms were able to reduce their production costs and aggressively compete on prices.

Exhibit 2 below is a strong testament to the combined impact of technology and globalization. Since 2001, the nominal prices of durable goods such as televisions, personal computers, and appliances, have generally, excluding the very recent past, moved down rather than up.

Exhibit 2: Year-Over-Year % Change in Core PCE Durable Goods



Source: US Bureau of Labor Statistics and TIFF calculations

[3] Valuations, measured in a variety of ways, have expanded meaningfully across asset classes over time. One prominent example is the S&P 500 price-to-earnings ratio, which averaged in the low 20s during the low and stable regime but averaged in the low teens for the prior 40 years.
[4] Global trade as a percentage of GDP went from 25% in 1970 to a peak of 61% in 2008. It had declined modestly to 58% by 2019 (Source: World Bank).
[5] For example, in the US in the 1950s, approximately 1/3 of private sector workers belonged to a union, whereas today, the figure is just 6% (Source: US Bureau of Labor Statistics).

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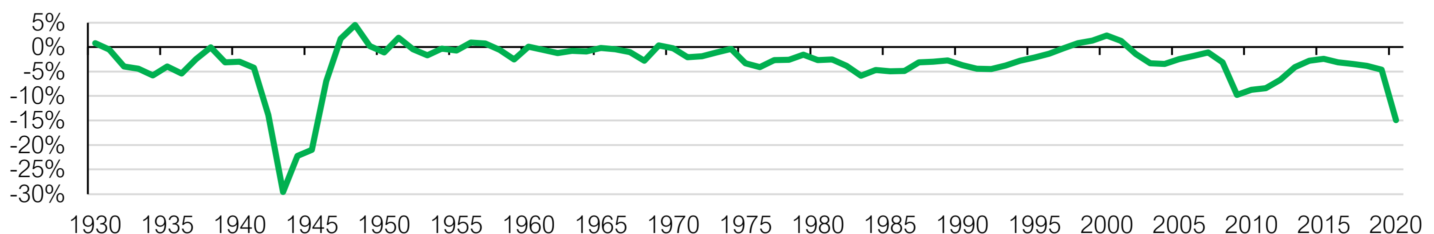
We do anticipate that the disinflationary impact of technology and globalization may be less strong in the coming years relative to the past. Although we acknowledge the potential of artificial intelligence, robotics, and other new technologies, we do not see anything as transformative as the internet on the near-term horizon. Similarly, the pace of globalization has slowed. Initially, the decline in global trade seemed to be a reaction to the apprehension of the post GFC era. More recently however, populist politics and COVID-driven concerns about the resilience of supply chains have entered into the equation. We do not believe that globalization will continue to decline significantly as the benefits of global trade are too large for firms, consumers, and governments to pass up. In sum, these forces collectively may be less deflationary in the 2020s than they were in the 1990s, 2000s, and 2010s, but we certainly still believe that they will put downward pressure on prices.

2) Fiscal Stimulus

The scale and scope of the fiscal programs put in place in 2020 and 2021 in an attempt to stave off an economic crisis were unprecedented in US peace-time history. Exhibit 3 below shows that the only time period in which the federal deficit was as large a percentage of GDP was during World War II.

Exhibit 3: US Federal Surplus/Deficit as Percentage of GDP



Source: US Bureau of Labor Statistics and TIFF calculations

All else equal, fiscal stimulus in the form of government spending, tax cuts, and direct transfers are a boon for aggregate demand and are inflationary. However, it is not clear that the fiscal impulse will be sufficiently long-lasting to drive material future price pressures. As of this writing, in late October 2021, we do anticipate further spending in addition to the COVID-prompted programs of 2020 and 2021. However, the size of the bi-partisan infrastructure bill and the broader, Democrat-only reconciliation bill are likely to be much smaller than the COVID-relief programs. Additionally, whereas the prior stimulus was not offset with tax increases, we expect to see some offsets going forward, further mitigating the inflationary impulse.

3) Monetary Policy

The monetarist school of economics believes that inflationary outcomes are driven by the money supply broadly and central bank policy specifically, often invoking the famous Milton Friedman quote that inflation is "always and everywhere a monetary phenomenon." In the years following the GFC, monetary policy in the US changed fundamentally, as the Fed used forward guidance, quantitative easing (QE), and other measures to stimulate the economy. The Fed's balance sheet had swelled to 25% of GDP in 2014, as compared to 6% immediately before the crisis. Puzzling to monetarists and others however, inflation never materialized (see, again, Exhibit 1) in the way that many predicted it would. In response to the COVID crisis in 2020, the Fed once again re-wrote its playbook, starting QE almost immediately after the initial shutdowns, purchasing corporate bonds for the first time, and inflating its balance sheet to a current level of 38% of GDP.

Prior to the last 6 months, the post COVID environment, similar to the post GFC era, featured muted inflation in spite of the sea-change in policy. We believe that the recent price spikes are due primarily to the supply challenges that we will discuss in the next section, not the lagged result of the Fed's actions. Additionally, the Fed has revealed that policy is likely to become less accommodative in the near future. Specifically, the Fed has communicated that its QE

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program is likely to slow its purchases as early as Q4 2021 and that the Federal Funds rate could be increased as early as late in 2022. This all argues for monetary policy having a reasonably muted effect on inflation in the coming years.

There is certainly a risk however that the Fed will be less strict about regulating inflation through monetary policy than it has been in the past. This risk stems primarily from the Fed's new monetary policy framework, Flexible Average Inflation Targeting or FAIT, introduced in August 2020. The idea behind FAIT is that the Fed will target an average 2% inflation rate over a period of time rather than act to prevent inflation from exceeding the 2% target. This means, by definition, that the Fed will, relative to the past, tolerate somewhat higher inflation. Additionally, on the other side of its dual mandate, the Fed announced that it will simultaneously target not just full employment but "broad based and inclusive" full employment, specifically mentioning geographies and demographic groups that have been historically disadvantaged in labor markets. While there are many unanswered questions regarding the new framework (e.g. over what time period will the Fed measure the average inflation rate? what will the broader definition of full employment be?), it seems clear to us that the Fed has shifted its priorities, at least slightly, away from fighting inflation and toward inducing a strong labor market. While we do not think, by a long stretch, that the Fed will abandon its commitment to containing inflation, it certainly seems plausible that future policy will reflect greater tolerance for inflation above 2% than what we have seen in the past.

4) Supply Bottlenecks

For the first time in decades, the US economy is suffering from supply shortages throughout the economy. The specific reasons behind these shortages are often complex, multi-faceted, and idiosyncratic to each good or service in question. Regardless of the precise cause, it is indisputable that these shortages have caused meaningful price increases and could lead to higher sustained inflation.

One key shortage is in the labor market where, as has been well-publicized, certain industries have had to significantly increase wages to attract workers. Nominal year-over-year wage growth peaked at 8.2% in April 2020 and has averaged 4.6% since the start of the pandemic. In contrast, for the 10 years prior to the pandemic, wage growth averaged 2.4%. If wage growth of this magnitude continues without increases in worker productivity, firms will be forced to either pay the elevated wages and accept lower profit margins or pass the costs on to consumers in the form of higher prices.

Critical inputs to the global economy such as semiconductors and physical commodities have also experienced shortages. The price levels of energy commodities, particularly fossil fuels, are worrisome. Oil and natural gas futures are each trading at or around 7-year highs, levels not seen since mid-2014 when the US shale revolution precipitated a multi-year decline in prices. Because fossil fuels are still used heavily in electricity generation, manufacturing processes, and transportation, there are very few parts of the economy that are entirely insulated from their price movements. Capital expenditure to ramp up production, alleviate the shortages, and provide relief on the elevated price levels does not appear to be on the near-term horizon. This lack of new production is likely due in part to Environmental Social and Governance (ESG) concerns from investors and the world's badly needed broader decarbonization initiative. Indeed, The Economist magazine compiled 2022 capital spending forecasts for the top 250 commodity firms globally and compared them to 2019 levels. Whereas industrial metal miners and agricultural firms foresee large increases, 26% and 19% respectively, energy firms project a 9% decrease.

While all of this sounds quite dire, generally speaking, in a capitalist economy with well-functioning markets, the lure of outsized economic profits and wages will be met promptly with supply increases. To be sure, markets are not perfectly efficient and do not always respond quickly. However, though the precise timing may be uncertain, there is a strong likelihood that the supply challenges that the economy currently faces will be resolved. Many goods, such as lumber for instance, have already seen increased production come on-line, leading to reversals of large price increases.

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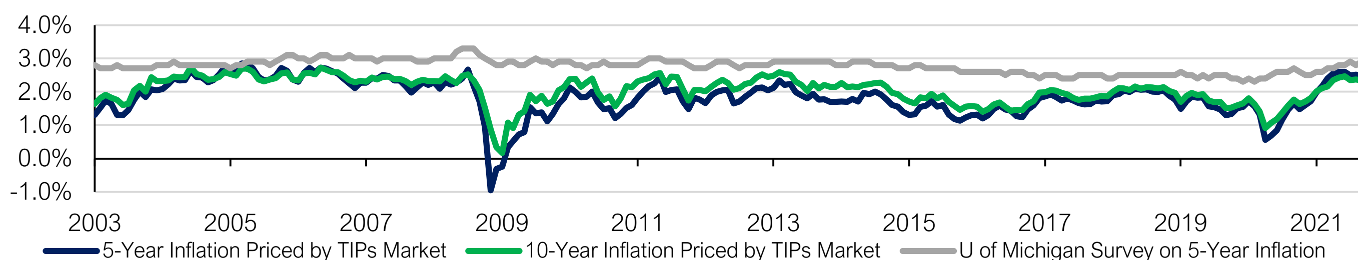
Finally, it is worth noting that these shortages are not widespread, they are limited to a reasonably narrow slice of goods in the economy. The Dallas Federal Reserve Bank and several sell-side firms have built “trimmed” inflation indices that exclude a short list of items that are exhibiting extreme price moves in either direction. These indices existed prior to the COVID-19 crisis and, similar to core inflation indices (i.e., excluding food and energy), are useful in disentangling general price trends from movements that are more unique to a given good or service. If the supply shortages were percolating throughout the economy and impacting the prices of goods and services broadly, we would expect these trimmed indices to show year-over-year inflation readings well above 2% as they did in the 1970s and early 1980s. Rather though, these indices are currently running at modest levels, the Dallas Fed index’s last reading was 2.03% for August 2021. This gives us some indication that the shortages are in fact contained to a narrow set of goods.

5) Inflation Expectations

The logic behind inflation expectations is intuitive: If business managers and workers expect higher inflation in the future, they would be expected to, respectively, set higher prices and more aggressively bargain for wage increases. If such price and wage increases are realized, they would then be internalized and fed through into higher expectations, creating a positive feedback loop. In Exhibit 4 below, we show 5-year and 10-year inflation expectations as measured by the Treasury Inflation Protected (TIPs) market and 5-year inflation expectations from the University of Michigan consumer survey.

Exhibit 4: Inflation Expectations



Source: Federal Reserve Economic Data and TIFF calculations

Long-term inflation expectations have certainly moved up a bit relative to the recent past. However, it would be difficult to argue that these moves are completely out of the ordinary based on what we’ve seen over the last 20 years. The Fed and those in the “transitory camp” can take solace that expectations, in economist parlance, are “well anchored.” This suggests that business managers and workers will be tempered in their price setting and wage negotiations respectively.

TIFF’s Views on Inflation

In the introduction to this paper we discussed the many benefits of the low and stable inflation regime. It is worth pointing out that there is nothing sacred or magical about the Fed’s 2% target. If inflation were to drift in to the 2%-4% range but importantly, remain stable, there would not necessarily be adverse economic outcomes as a result. Indeed, perpetually low inflation is not necessarily beneficial. As the Japanese, and some of the southern European economies have demonstrated, an inflation level only slightly above 0% can trigger extremely harmful disincentives to spend and invest. Having a more comfortable cushion against falling into a deflationary trap can be a positive. Further, in a slightly more inflationary environment, policy makers have more flexibility to target accommodative levels of real interest rates, which are what ultimately matters for borrowing and lending decisions throughout the economy. Finally, as exhibit 3 above illustrates, the COVID fiscal stimulus added to an already bloated federal debt level. While the interest expense on this debt is very manageable relative to the past, inflation can be conducive to reducing the value of the outstanding debt over time.

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The equity market seems to agree that slightly higher inflation than what we have experienced in the recent past is not necessarily a bad thing. As Exhibit 5 below illustrates, trailing 12-month real equity returns over the last 50 years do not vary significantly across different inflationary environments as long as year-over-year inflation does not exceed 6%. The frequency of positive returns (i.e. the "batting average" or % of periods with positive real returns) does increase steadily across the defined segments as the inflation levels falls. It is noteworthy however that the strongest average return actually comes from the 4-6% inflation segment, not something closer to the Fed's target. We fully realize that equity market performance is dependent on a number of critical factors other than inflation. However, this simplified analysis does, we think, help illustrate that slightly higher inflation is not overly problematic for equity markets.

Exhibit 5: Trailing 12-Month Equity Returns and Batting Average Segmented by Contemporaneous Inflation Rate (1970-2021)

	Trailing 12-Month Inflation Rate Segments			
	0% - 2%	2% - 4%	4% - 6%	>6%
Number of Trailing 12-Month Periods	122	273	112	102
Average Inflation Rate	1.6%	2.7%	4.7%	8.8%
MSCI World - (% of Periods with Positive Real Returns)	79%	71%	69%	50%
MSCI World - (Average Real Return)	8.9%	8.5%	9.4%	-2.8%

Source: US Bureau of Labor Statistics and TIFF calculations

To be clear, we do not want to suggest that there's no downside to a pick-up in inflation. If inflation were to become more volatile, that would certainly introduce significant uncertainty to both households and firms, and likely weigh on economy-wide productivity. Additionally, higher inflation will mean higher interest rates and borrowing costs throughout the economy. This, of course, would lead to lower asset valuations across markets. In summary, although we would not expect inflation slightly above the Fed's target to be problematic for the economy or financial markets, we would become concerned if price levels were to become more volatile or if they were sustained meaningfully above the Fed's target.

In terms of where inflation will end up in the future, we believe that the weight of evidence favors the recent inflation spike being more transitory than persistent. Granted, the increases in price levels that we have seen in the recent past may linger longer than the Fed or others have anticipated, and it is certainly plausible that we will see inflation rates a bit higher than the 2% level we have become accustomed to. However, we do believe that the low and stable regime will remain with us in the coming years. In Exhibit 6, we summarize our views on the five inflation dynamics we have discussed above.

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Exhibit 6: Summary of TIFF Views on Key Inflation Dynamics

Inflation Dynamic	Our View
Long-term, secular disinflationary forces	Diminished in magnitude relative to past, but still weighing negatively on inflation.
Fiscal stimulus	Inflationary impact has already begun to fade, will continue to wane even if bills pass. A future risk is subsequent large stimulus stoking aggregate demand when it is not needed.
Monetary policy	Low policy rates and QE have not had much of an impact and will likely begin to reverse soon. The Fed, via FAIT, could be more tolerant of higher inflation in the future.
Supply bottlenecks	Highly impactful in short-term, should be resolved over time. Energy shortages and price levels represent a risk to our view, at least in the short-term.
Inflation expectations	Modest move up in long-term measures suggests that expectations still well anchored.

Source: TIFF Calculations

Portfolio Positioning

So what are we doing about it? At TIFF, our non-profit portfolios are exposed to inflation in a fundamentally different way than many other investor segments. For example, some European pensions discount their liabilities in inflation-adjusted terms. Further, high net worth investors in the decumulation phase are highly susceptible to meaningful changes in the prices of their consumption baskets. Non-profits however, typically with significant investments in equity markets, are most exposed to inflation outcomes as a macro economic risk. At TIFF, we therefore do not think of inflation as something to hedge per se, but rather a variable that will impact our broader positioning.

If our base case materializes and the spikes of recent months retreat over the remainder of 2021 and 2022, there are a few portfolio implications. First, real rates are still firmly in negative territory, near all-time lows. While persistently higher inflation would make fixed income extremely unattractive, the asset class is also not well positioned in the transitory scenario. So, we would expect that our bearishness on fixed income will remain for some time. Second, given reasonably full valuations and less accommodative fiscal and monetary policy, we do not see equity markets as being poised for massive gains either. We do however expect earnings growth to continue and see the risk of a recession in the near-term as fairly low. As long as inflation, or some other variable, does not bring about a dramatic increase in interest rates, equity markets should generate modest positive returns. We will therefore likely remain overweight. Third and last, as always, we will continue to rely on our stable of managers to invest in businesses that have an ability to grow earnings and deliver strong returns to shareholders. We expect outperformance from our managers over the long-term irrespective of the direction of macro variables such as inflation.

It is worth noting that we do periodically take positions in the TIPs market. In April of 2020, when the market was pricing in a prolonged economic catastrophe and TIPs break-evens neared 0, we moved a good portion of our Fixed Income holdings into TIPs. We then removed the position in April 2021 after the market had more appropriately priced the economic environment, realizing positive P&L. As of this writing in late October 2021, the current break-even inflation rate on a 10-year TIP is 2.64%, a level that strikes us as a bit high, but not drastically so.

Conclusion

The combination of the shutdown-induced global recession and the corresponding unprecedented policy responses has created some fascinating dynamics in economics and markets. After nearly 40 years of low and stable price increases, the last few months have seen larger and more volatile spikes in inflation. Because of how impactful inflation outcomes are across the economy and financial markets, there has been an enormous focus on these recent price increases. Our belief is that these moves will fade in the coming quarters and that we'll remain in the low and stable regime for some time. We have positioned our portfolios accordingly. Importantly though, if we have learned

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anything about the COVID-19 environment and its aftermath, it is that things can change both quickly and significantly. As the post COVID-19 era continues to reveal itself in the coming months and quarters, we will be clear-eyed about new information and how that impacts our thesis on inflation and the markets more broadly. We look forward to sharing these views with you as the investing environment continues to evolve.

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