KATHMERE
CAPITAL MANAGEMENT

# PERSPECTIVES ON INFLATION: AN OUTLOOK FOR THE FUTURE & IMPLICATIONS FOR INVESTORS

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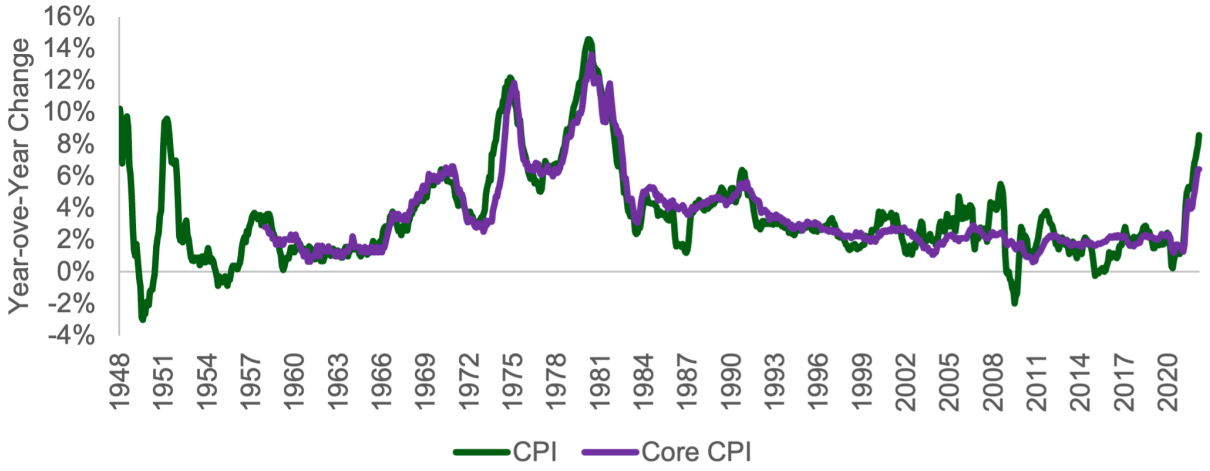
**Nick Ryder, CFA**
Chief Investment Officer

## INTRODUCTION

Inflation is nuanced and multifaceted. By definition, it's a currency devaluation whereby the purchasing power of one unit of currency declines. Colloquially, inflation refers to the sustained increase in the general level of prices. The most commonly cited measure for inflation is the Consumer Price Index (CPI). CPI reflects changes in weighted average prices for a basket of goods and services over time—prices of food, clothing, shelter, fuels, transportation, health care services, drugs, and other goods and services that people buy as a part of their day-to-day lives.

As demonstrated clearly in the chart below, inflation has recently surged to levels not seen since the early 1980s.

**Exhibit 1: Inflation has recently surged to 40-year highs**
Consumer Price Index (CPI) inflation




Source: Federal Reserve Bank of St. Louis FRED.

In March 2022 overall "headline" CPI inflation was up 8.6% from a year ago which was the highest reading in nearly 40 years. Meanwhile, "core" inflation (CPI excluding volatile components like food and energy prices) was up 6.4% from a year ago, which also marked its highest reading since the early 1980s.

Inflation's surge has gained a lot of attention because it marks a clear break from the "great moderation" that's taken hold over the last three or so decades where core inflation experienced minimal volatility and has consistently hovered around 2% annually.

The surge has stirred fears that we may be in the early stages of another "Great Inflation" like one the US economy experienced in the late 1960s through early 1980s when inflation was consistently above 5% for nearly the entirety of the 1970s and peaked nearly at 15% in 1980. From 1965-1982, inflation ran at a 6.5% annualized rate.

Not surprisingly, many investors are asking: are we heading for a repeat of the "Great Inflation" where today's high inflation will be sustained for an extended period of time? Or will inflation's current surge prove fleeting and give way to a return of the relatively muted inflation that's been the rule over the last three decades? And importantly, what are the implications for portfolio construction and positioning?

In this paper, I provide several perspectives covering:

1. A big picture examination of what's driven inflation's recent surge.
2. My outlook for how inflation may evolve in the years ahead.
3. What I believe to be the implications from an investment perspective.

I share my perspectives here with the disclaimer that, as always, I'm not sure exactly how right or wrong my conclusions are. I'm putting them out there for you, the reader, to take or leave as you like.

## HOW DID WE GET HERE? WHAT'S BEHIND INFLATION'S RECENT SURGE?

The fundamental issue at hand is that demand for goods and services is outstripping the supply of those goods and services. Widespread inflation always comes from people wanting to buy more of everything than the economy can produce.

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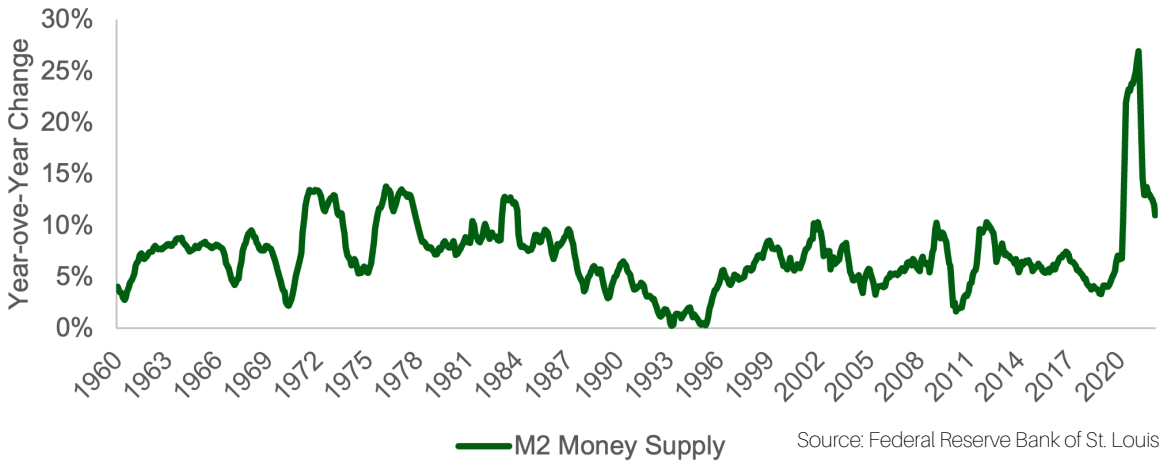
Viewed through this lens, inflation's recent surge is directly attributable to the government's multi-faceted approach to addressing the Covid pandemic. The current inflationary spike directly traces its roots back to early 2020 when governments around the world—with large differences in timing, duration and severity—sought to contain the spread of the virus and prioritize public health by implementing lockdowns and other restrictions on mobility and economic activity. At the same time, governments globally enacted policies to replace the income of those who lost their ability to earn as a result of these Covid-containment policies.

In the US, for example, to blunt the financial impact of lockdowns, Congress enacted multiple deficit-financed spending bills designed to provide income payments to individuals and businesses in the form of direct stimulus checks, expanded and enhanced unemployment benefits, expanded tax credits and forgivable loans and grants, among others. Meanwhile, monetary policy was highly accommodative as the Fed held short-term interest rates at zero and executed a massive quantitative easing program in which they purchased trillions of dollars of Treasury debt and mortgage-backed securities in order to put downward pressure on longer-term interest rates and ensure the smooth functioning of these critical markets through the provision of ample amounts of liquidity.

The joint effect of this broadly coordinated fiscal and monetary policy in the form of large deficit spending combined with quantitative easing resulted in a massive expansion in the amount of money in circulation available to be spent on goods and services.

The chart below plots rolling one-year changes in the M2 money supply which measures the amount of cash, checking deposits and easily-convertible "near money" such as certain types of money market fund holdings. It's a closely watched, and important, indicator of the money supply as it reflects assets that can readily be used to purchase goods or services. The chart clearly reveals the unprecedented nature of the increase in the money supply.

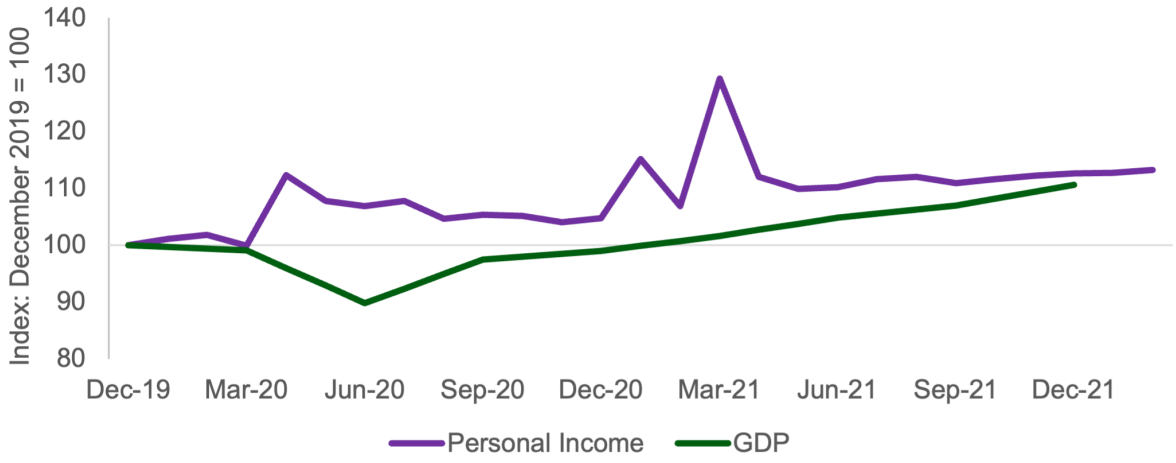
**Exhibit 2: Money supply has experienced unprecedented growth amid highly expansionary fiscal and monetary policy**
Year-over-year M2 money supply growth




Source: Federal Reserve Bank of St. Louis FRED.

Another way of looking at this dynamic is to compare the total amount of income received by US households to total economic output. The chart below demonstrates that personal income grew significantly in 2020 and 2021 as the substantial increase in government transfer payments (such as those described above) more than offset the decline in earned income due to business closures and job losses. Observant readers will be quick to note that the three spikes in income coincide with the three rounds of direct stimulus checks authorized by Congress in 2020 and in early 2021. Meanwhile, the total amount of economic output generated in the US (as measured by GDP) failed to keep pace throughout the entirety of the period.

**Exhibit 3: Personal income growth far outpaced that of GDP**
Personal income & gross domestic product (GDP) growth since December 2019




Source: Federal Reserve Bank of St. Louis FRED.

Inflation accelerated its rise over the past year in particular as consumers, flush with cash, once again became willing to spend and the productive capacity of the economy couldn't keep up with the surge in demand. Ultimately, there was proverbially "too much money chasing too few goods" which resulted in the surge in inflation we're currently experiencing. Milton Friedman once joked that the government could easily create inflation by dropping money from helicopters. That's pretty much what our government did.

Now let's turn our attention to the outlook for inflation.

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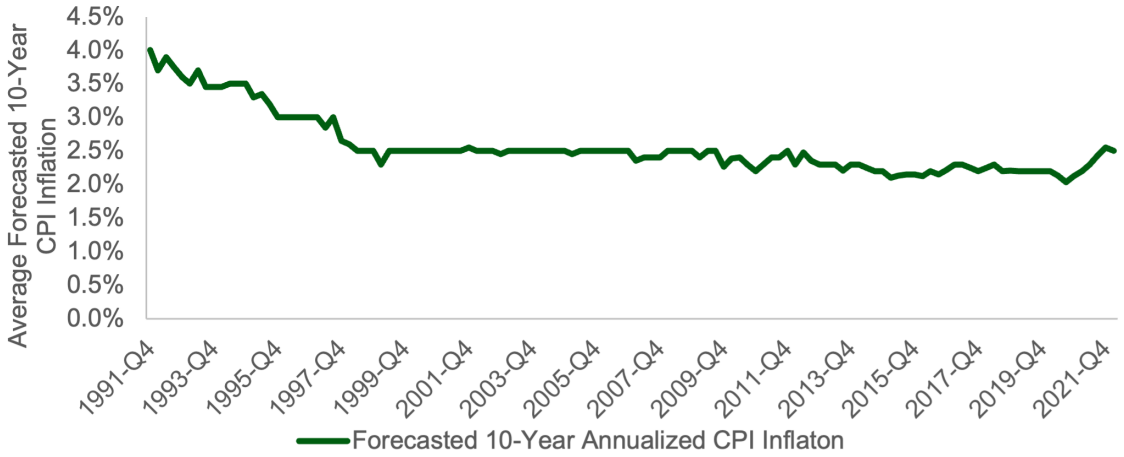
## THE OUTLOOK FOR INFLATION

As a first step in forecasting future inflation, it's instructive to understand the consensus expectations of other investors. One way to do this is to rely on surveys which ask people directly to reveal their expectations for inflation in the years ahead. For this, we turn to the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia. The chart below reveals that professional forecasters are anticipating inflation to average 2.5% over the next decade, which is notably more or less in line with their expectations over the last three decades.

**Exhibit 4: Professional forecasters expect inflation to average 2.5% per year over the next decade**
Philadelphia Fed Survey of Professional Forecasters projections for the 10-year annual average rate of CPI inflation




Source: Federal Reserve Bank of Philadelphia Survey of Professional Forecasters (Q1 2022)

The second method for assessing inflation expectations is to look at the assumptions embedded in the market prices of securities. At the time of writing, as demonstrated in the chart below, the prices for nominal and inflation-protected Treasury bonds reveal that market participants in aggregate expect inflation to average 3.3% per year over the next five years and 2.8% per year over the next 10 years. This indicates investors broadly expect inflation to remain somewhat elevated in the immediate future prior to slowing down in the latter part of the 2020s.

**Exhibit 5: The TIPS market indicates investors collectively expect inflation to average 3.3% over the next five years and 2.8% over the next 10 years**

US Treasury Inflation Protected Securities (TIPS) 5- and 10-year breakeven inflation rates


Source: Federal Reserve Bank of St. Louis FRED.

The market, in short, appears to be anticipating a somewhat benign outlook for inflation in the years ahead where inflation is higher than where it's been over the last three decades, while still materially lower than that of the Great Inflation era.

Overall this is a fairly reasonable baseline expectation. That said, I think the risks remain tilted toward inflation surprising further to the upside over the next decade. It's likely that we're currently in the early stages of a new inflation paradigm driven primarily by changes in labor market dynamics as well as trends in globalization. If this turns out to be the case, inflation may well average between 3% to 4% per year over the next decade.

I'll explore each of these themes further in the sections below.

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## CHANGES IN LABOR MARKET DYNAMICS: A NEW REGIME FOR LABOR?

Compensation expense is the dominant cost in almost any economy. As such, labor market dynamics play an important role in influencing prices for goods and services. Currently, the US economy is broadly suffering from a well-publicized scarcity of labor. The chart below reveals there are more job openings than there are unemployed people by a fairly wide margin. Simply put, employers broadly are struggling to find workers to fill open positions. Interestingly, as the chart shows, this dynamic started to emerge prior to the pandemic and has accelerated since.

**Exhibit 6: Job openings outnumber unemployed persons by a wide margin**
Total job openings and unemployed persons


Source: Federal Reserve Bank of St. Louis FRED.

Competition for relatively scarce labor has caused wages to rise at their fastest rate in nearly 40 years. This can be seen in the chart below.

**Exhibit 7: Wages are rising at their fastest rate since the early 1980s as labor demand exceeds labor supply**
Average hourly earnings of production and nonsupervisory employees


Source: Federal Reserve Bank of St. Louis FRED.

In my view, it's possible that these wage increases are only the beginning of the next wave of inflationary pressures as both the US and the global economy experience a momentous demographic shift from the labor surplus that's persisted over the last generation to the labor shortage that we're set to face in the decades ahead as populations age and the population share of working-age people declines in the West and in China.

Recent research from HighVista Strategies demonstrates two critical points related to these demographic shifts:

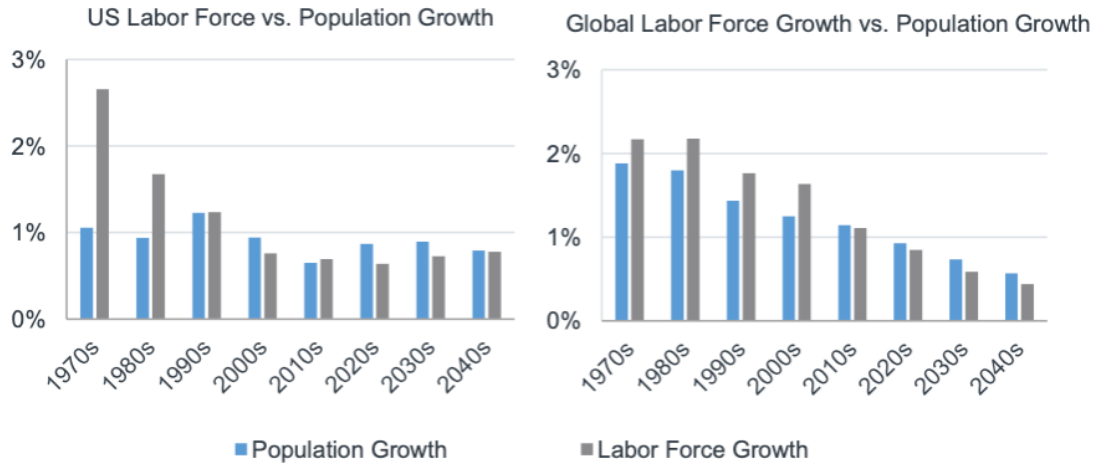
1. The global labor force is set to grow at progressively slower rates in the decades ahead vs. the decades in the past.
2. Whereas from the 1970s through the 2000s labor force growth outpaced that of the global population, beginning in the 2010s and projected onward, labor force growth has and is expected to lag that of the overall population as populations broadly age.

Collectively, the charts below show that the world's population is set not only to grow more slowly in the years ahead but also that, because of aging, the labor supply will be growing even more slowly. Such a structural change would represent a new phenomenon which is likely to result in continued upward pressure on wages and inflation as employers are forced to compete for increasingly scarce labor.

"The world's population is set not only to grow more slowly in the years ahead but also that, because of aging, the labor supply will be growing even more slowly."

**Exhibit 8: The global labor force and overall population are anticipated to grow at progressively slower rates in the decades ahead**

Labor force and population growth




Source: Inflation? Real Concerns, Real Opportunities. HighVista Strategies Whitepaper. November 2021

## TRENDS IN GLOBALIZATION: A NEW REGIME FOR GLOBAL TRADE AND PRODUCTION?

Over the last century, improvements in transportation and communications technologies made it increasingly possible to separate the locations of production and consumption by hundreds—or even thousands—of miles. These enhancements enabled goods to be produced in places where labor was most readily and cheaply available or where the benefits of specialization and comparative advantage could be maximized. As the world came to better recognize and appreciate the benefits of freer trade—and thus became more accepting of it—rapid growth in the offshoring of production from rich countries (e.g., the United States) to comparatively poor and developing countries (e.g., first Japan, then successively, China, Vietnam, Bangladesh, India, etc.) and cross-border trade ensued.

From the perspective of the United States, the growth in cross-border trade and offshoring no doubt contributed significantly to the low level of inflation experienced at home over the last few decades. The table below shows that according to the Federal Reserve's preferred measure of inflation, the Personal Consumption Expenditures (PCE) Price Index, inflation averaged just 2.1% per year since the beginning of 1990. A look inside the numbers is instructive.

**Exhibit 9: The comparatively slow pace of goods inflation served to hold down the overall rate of inflation over the last 30+ years**

Personal Consumption Expenditures Price Index inflation (January 1990 – February 2022)

| | Annualized | Cumulative |
|---|---|---|
| **Total** | **2.1%** | **95.3%** |
| Services | 2.7% | 139.5% |
| Goods | 0.9% | 32.2% |
| Nondurable Goods | 1.9% | 80.8% |
| Durable Goods | -0.9% | -26.2% |

Source: Federal Reserve Bank of St. Louis FRED.

It's remarkable to note the differences in inflation experienced in the prices of services compared to those of goods. The table above shows that the prices of services, which were less susceptible to offshoring and improvements in automation, increased by 2.7% per year over the 30+ year period, while the prices of goods rose much more slowly at 0.9% per year. It's further startling to note that the prices of durable goods fell by more than a quarter over the period. The availability of ever-cheaper goods like cars, appliances and furniture produced abroad was a major contributor to the benign rate of inflation experienced in the US over the last three decades. Even though the prices of nondurable goods (e.g., clothing) didn't decrease during the period, as they did for durables, cheap imports likewise helped keep a lid on prices overall.

Today, globalization is at risk of heading in reverse, as attitudes broadly toward globalization and international trade have become more negative amid a rise in nationalist political leanings and geopolitical conflict. Further, businesses have increasingly experienced the negative aspects of globalized supply chains in recent years as tit-for-tat trade wars, a global pandemic and now an actual war in Europe have exposed the downside risks of finely tuned supply chains. It's highly possible that companies will increasingly look to emphasize local production over global production where possible in the years ahead. In doing so, the single-minded focus on efficiency and cost-cutting that ruled the day in recent decades will be balanced with an increased emphasis on resilience in the face of disruption. To the extent globalization stalls or even reverses, it would, all else equal, result in less efficient production structures and higher prices overall. Thus, a contraction in globalization should be viewed as an upside risk to inflation.

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## A NOTE ON POLICY: WILL POLICY MAKERS ACT TO CURTAIL INFLATION?

A significant wildcard impacting the inflation outlook is how fiscal and monetary policy evolves in the years ahead. Predicting policy is notoriously challenging given how swiftly and dramatically things can change based on voter preferences and election outcomes. That said, as things currently stand, I view policy as an additional source of upside risk to inflation.

Through fiscal, monetary and regulatory policy, our governments and central banks play a critically important role in influencing inflation. As we saw in the sections above, the joint actions of our fiscal and monetary policy makers played a primary role in causing inflation's recent surge. Ultimately, if people view that our fiscal and monetary policy authorities are able and willing to do what it takes to prioritize the stability of our currency and contain breakout inflation, inflation in the years ahead is likely to remain subdued. However, doing what it takes means joint fiscal and monetary stabilization in the form of a renewed commitment to deficit reduction and ongoing fiscal responsibility combined with a return to normalized monetary policy paired with growth-oriented regulatory reforms. And it means sticking to these policies through periodic bouts of short-term economic—and political—pain caused either by the policies themselves or by the natural fluctuations of the business cycle. Given the unfortunate reality that long-term thinking and political fortitude are broadly in short supply among our elected representative today, I have what I believe to be reasonable concerns that policy makers will do what it takes to contain inflation. Thus, I consider policy risk to be a further source of upside risk to the inflation outlook.

In summary, my outlook for inflation over the next 5-10 years, is a baseline expectation for inflation to average 3% to 4% per year in the coming decade with the risks tilted to the upside. It's important to note that this would mark a somewhat material acceleration in inflation relative to the experience over the last three decades, while at the same time coming in well below the levels of inflation realized during the Great Inflation era of 1965-1982. Ultimately, I expect "higher" inflation going forward than what's been realized in the recent past. At the same time, while I don't believe rampant prolonged inflation is either likely or imminent, it is possible and cannot be dismissed outright for the reasons covered above.

"Baseline expectation is for inflation to average 3% to 4% per year in the coming decade with the risks tilted to the upside."

The key questions for investors moving forward are how will inflation impact their portfolios and how should they be positioned in such an environment? Next, I'll examine the historical impact of inflation on stocks and then close with what I consider to be the implications for investors today.

## HISTORICAL INVESTMENT IMPACT OF INFLATION ON STOCKS

As investors we are fortunate to have a long history of data in the US on inflation, corporate earnings and stock market returns to help inform our decision making.

In the sections below, I highlight a few key findings from HighVista Strategies and O'Shaughnessy Asset Management that examined the relationship between stocks and inflation which I find to be highly instructive.

HighVista examined inflation, corporate earnings and stock market returns over the 120-year period running from 1900 through 2020. In their paper, HighVista defined four different inflation regimes based on annualized five-year inflation measured on a quarterly basis: "Deflation" (<0.0% annualized), "Low Inflation" (0.0%-2.5% annualized), "Medium Inflation" (2.5%-5.0% annualized) and "High Inflation" (>5.0% annualized). Within each regime, they calculated the average annualized five-year CPI inflation and corporate earnings growth in both nominal and real dollars. The results are presented in the table below.

**Exhibit 10: Nominal corporate earnings growth broadly kept pace with inflation during highly inflationary environments**
US corporate earnings growth in inflation regimes (January 1900 – December 2020)

| | | Deflation | Low Inflation | Medium Inflation | High Inflation | Full 120 Years |
|---|---|---|---|---|---|---|
| | | <0.0% | 0.0 - 2.5% | 2.5 - 5.0% | >5.0% | |
| Frequency | | 8.5% | 42.1% | 28.6% | 20.8% | 100% |
| Avg. Inflation | | -2.9% | 1.6% | 3.6% | 7.8% | 3.1% |
| Avg. Corporate Earnings Growth | Nominal | -5.6% | 6.2% | 5.0% | 7.9% | 5.2% |
| | Real | 2.9% | 4.6% | 1.5% | 0.1% | 2.1% |

Source: Inflation? Real Concerns, Real Opportunities. HighVista Strategies. November 2021

Several points stand out:

- On average, the High Inflation regime was the best for nominal earnings growth (7.9% annualized); however, all of the growth was effectively erased by inflation as real earnings only grew by 0.1% per year on average. Put differently, companies in aggregate were able to pass on cost increases in highly inflationary environments but were unable to grow their profits in excess of inflation.

- At the other end of the spectrum, the Deflation regime was a poor one for earnings growth on both a nominal (-5.6% annualized) and real basis (-2.9% annualized).

- Low Inflation was far and away the best regime for real earnings growth (4.6% annualized); Medium Inflation was second best (1.5% annualized).

- HighVista also performed a similar exercise for US stock market returns which is presented below.

**Exhibit 11: US stocks have been able to preserve purchasing power in high inflation environments**
US equity market returns in inflation regimes (January 1900 – December 2020)

| | | Deflation | Low Inflation | Medium Inflation | High Inflation | Full 120 Years |
|---|---|---|---|---|---|---|
| | | <0.0% | 0.0 - 2.5% | 2.5 - 5.0% | >5.0% | |
| Frequency | | 8.5% | 42.1% | 28.6% | 20.8% | 100% |
| Avg. Inflation | | -2.9% | 1.6% | 3.6% | 7.8% | 3.1% |
| Avg. Ann. US Stock Market Return | Nominal | 3.9% | 11.5% | 10.6% | 8.5% | 10.0% |
| | Real | 6.8% | 9.8% | 6.8% | 0.6% | 6.8% |

Source: Inflation? Real Concerns, Real Opportunities. HighVista Strategies. November 2021

Their analysis reveals:

- High Inflation has been an OK scenario for nominal total returns (8.5% annualized) but a relatively poor one in terms of real returns (0.6% annualized), as nominal returns barely outpaced inflation. Effectively, stocks have been able to preserve their purchasing power on average in high inflation periods but not much more.

- Deflation broadly resulted in low nominal returns (3.9% annualized) but surprisingly average real returns (6.8% annualized).

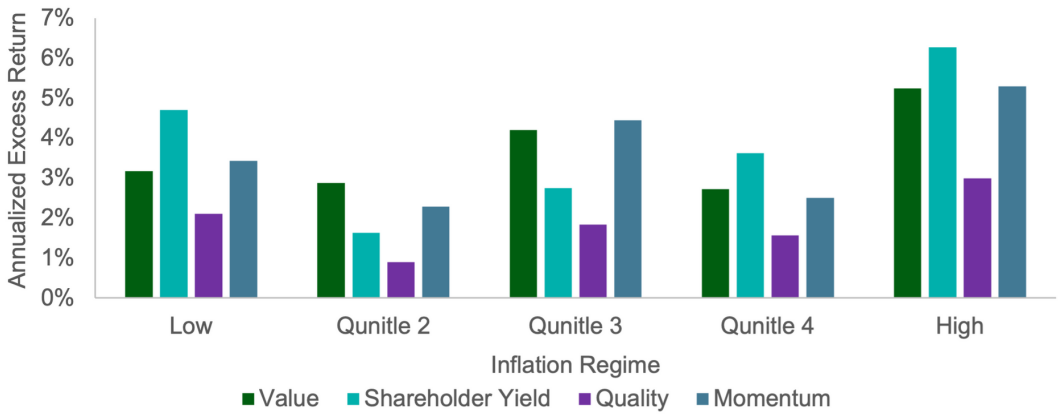
- Once again, the Low Inflation regime was best for equity market investors as both nominal (11.5% annualized) and real returns (9.8% annualized) topped all other regimes, while Medium Inflation was second best (10.6% annualized and 6.8% annualized for nominal and real, respectively.)

Separate research from O'Shaughnessy Asset Management (OSAM) examined the relationship between certain stock selection factors and inflation regimes. The OSAM analysis first calculated the rolling 12-month rate of inflation as of each month between January 1964 through June 2021 and then divided each observation into five quintile groups (i.e., inflation regimes) based on the level of inflation: Low (average annualized inflation = 1.1%), Quintile 2 (2.2%), Quintile 3 (3.1%), Quintile 4 (4.3%) and High (8.5%).

The OSAM analysis then examined the excess returns (i.e., returns vs. those of the selection universe) in a universe of US large-cap stocks for the cheapest, highest-yielding, highest quality and highest-ranked deciles of their Value, Shareholder Yield, Quality and Momentum themes (i.e., "factors"), respectively, during the same period. Their analysis revealed: (a) that each factor delivered positive excess returns on average in all the inflation regimes, further confirming the empirical case for factor-oriented investing as a potential opportunity for improving equity portfolio performance and (b) that each of the four factors individually delivered its greatest excess returns in the High Inflation regime. These results suggest that factors can potentially serve as an effective hedge within equity portfolios in runaway inflation environments.

**Exhibit 12: Stock market factors have historically delivered strong positive excess returns in highly inflationary environments**

Average US equity factor excess returns in various inflation regimes (January 1964 – June 2021)




Source: O'Shaughnessy Asset Management analysis using data from Compustat and Federal Reserve Bank of St. Louis FRED.

Pulling the HighVista and OSAM analyses together, we can jointly conclude that:

1. There appears to be a link between high inflation and lower (albeit still generally positive) nominal and real equity returns; and
2. Certain factors, like Value, Shareholder Yield, Quality and Momentum have historically held up quite well in higher inflation regimes.

## IMPLICATIONS FOR TODAY'S INVESTORS

From an investment perspective, what does this all mean?

Here, I share my "playbook" for how I believe investors should be positioning themselves today in the face of potentially structurally higher inflation. This "playbook" is designed to protect the long-term purchasing power of capital in a bad inflationary environment while also preserving the opportunity to generate positive excess returns above and beyond traditional stock and bond investments. More specifically:

- Stay with stocks. Despite the potential for short-term downside risk along the way, on average, stocks have delivered positive nominal returns in all inflation regimes and have been able to preserve and materially grow purchasing power in all but the highest of inflationary environments. This is because stocks are ultimately real assets in that they represent ownership interests in companies that, as we saw, have been able to grow nominal earnings in line with inflation even in high inflation regimes.

- Favor factors within stocks. Certain factors like value, shareholder yield, quality and momentum have historically delivered strong performance in higher inflation regimes and may provide a valuable source of incremental returns above and beyond broad market indexes in an inflationary environment.

- Limit exposure to traditional, "core" bonds. Intermediate- and long-term high-quality bonds should generally be avoided as their fixed income streams stand to be eroded by higher inflation.

- Keep duration short within fixed income. Ultra-short and short-term bonds are both defensive and offensive in terms of their positioning via-a-vis potentially rising interest rates that would likely coincide with higher inflation.

- Emphasize higher yielding, less correlated private credit. Non-bank loans such as directly originated corporate loans, various types of asset-based lending as well as specialty and alternative credits generally offer higher yields than those available on bonds traded on public markets. While these investments are unlikely to be entirely immune to inflation shocks, their higher yields and generally shorter maturities may prove advantageous in an inflationary environment.

- Seek out exposure to other types of tangible real assets. Ownership interests in real estate, infrastructure, farmland and timberland assets each stand to benefit from leases that are either directly or indirectly tied to inflation and replacement costs that would also increase in an inflationary environment. Taken together, these types of assets may be quite attractive amid higher inflation.

Ultimately, inflation is a nuanced and multi-faceted phenomenon. As such, it's important to stress the need to remain vigilant with respect to both risk and opportunity moving forward. As we continue to receive more information and learn more about the evolving market dynamic, we will strive to constantly recalibrate our thinking and adapt our positioning accordingly.

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