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Is Real Estate a Good Hedge to Inflation Today?

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WHERE IS INFLATION HEADED AND IS REAL ESTATE A GOOD INFLATION HEDGE TODAY?

The question on everyone's mind is where is inflation headed? The next question for investors is, how can they position their portfolio to hedge the risk of inflation and maintain the purchasing power of their portfolio? As an asset class, real estate is widely accepted to have a higher correlation to inflation and can serve as a hedge. Given the current fundamentals, is it a better hedge to inflation today?

No one knows for sure how prolonged this inflation cycle will last, and many factors have contributed to the current inflation cycle. The bust and boom cycle caused by COVID-19 led to supply-chain disruptions, which have been a prominent driver. Yet, prior to COVID-19, several tariffs were also implemented, which likely created some initial inflation pressures. For instance, tariffs on Canadian lumber caused price spikes in 2017 (c. 50%) and throughout 2019 (c. 60%). Similarly, tariffs on more than \$300 billion on Chinese products started in March of 2018¹.

With the onset of COVID-19, we also saw significant government stimulus from Congress and the Federal Reserve. The outstanding debt of the U.S. increased \$7.4 trillion from \$22.2 trillion to \$29.6 trillion². Similarly, from February 2020 to February 2022, the Federal Reserve expanded its balance sheet \$4.7 trillion from \$4.2 trillion to \$8.9 trillion³. To put this in perspective, with 124.3 million occupied households in the U.S.⁴, the combined stimulus of over \$12 trillion amounted to over \$95,000 for every U.S. household. The combination of tariffs, the onset of COVID-19, government stimulus and global supply-chain issues all contributed to the current inflation cycle.

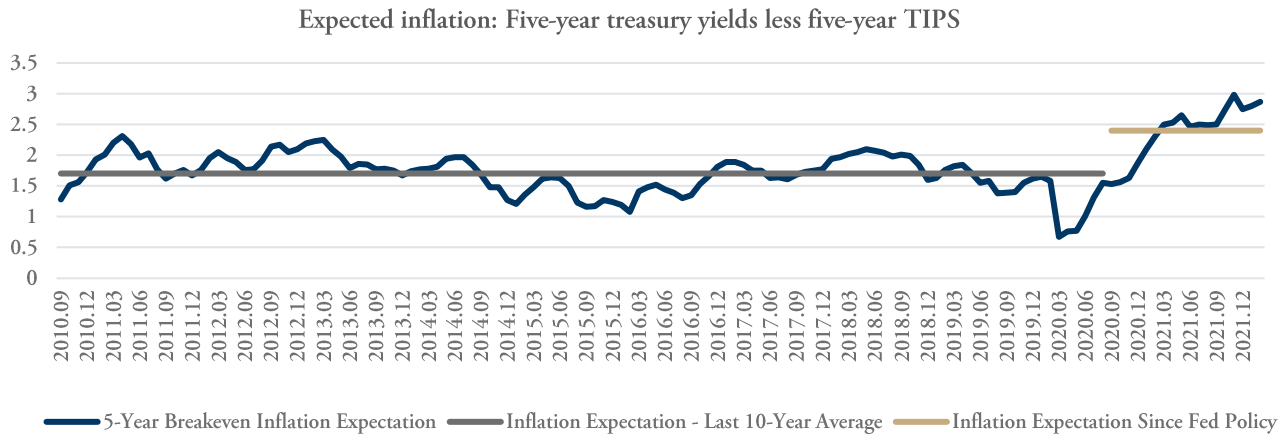
One subtle but important item that has also created some short-term issues is the change in inflation expectations due to the policy shift implemented by the Federal Reserve during the early stages of the pandemic. As many know, the Federal Reserve has a dual mandate as prescribed by Congress. The dual mandate requires the Federal Reserve to conduct monetary policy "so as to promote effectively the goals of maximum employment, stable prices and moderate long-term interest rates." However, in a speech at Jackson Hole in late August 2020, Chairman Jerome Powell noted, "...we will seek to achieve inflation that averages 2% over time. Therefore, following periods when inflation has been running below 2%, appropriate monetary policy will likely aim to achieve inflation moderately above 2% for some time."⁶

Prior to the announcement, even though the Federal Reserve had targeted 2% inflation, expectations remained anchored at 1.7% +/-0.3% as shown in Exhibit 1⁷. In other words, by targeting a point estimate of 2% instead of an average level of 2%, the Federal Reserve acknowledged its previous policy may have unintentionally led to sub-optimal employment levels. At the time, unemployment was 8.4%, and 14 million persons were unemployed.⁸ Almost overnight, though, fixed-income investors quickly priced the new policy into the bond market. In the fourth quarter of 2020, inflation expectations in the bond market jumped from 1.5% to 2.5% and recently reached 3.5%.

(Continued on next page)

EXHIBIT 1

Fed Policy Change In 2020 Led To Higher Inflation Expectations

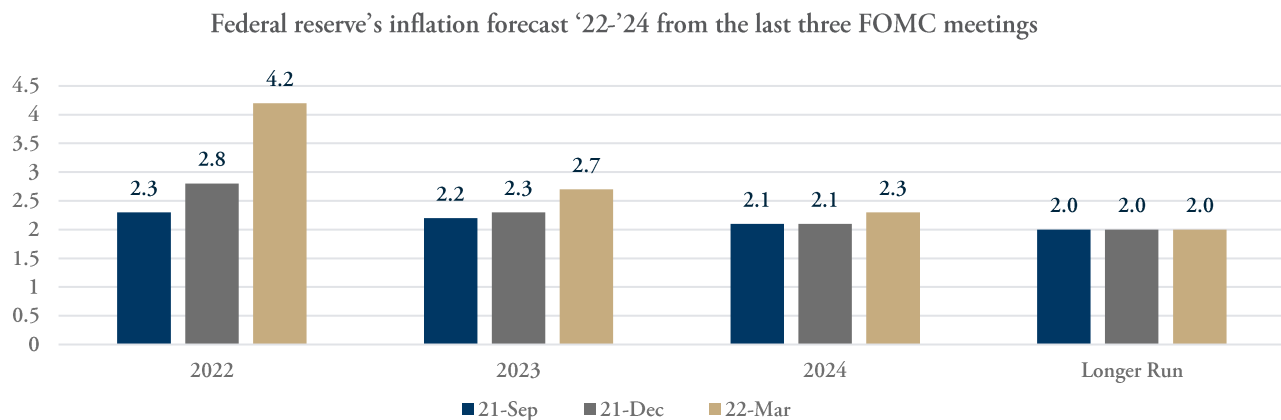


Source: Crow Holdings using data from the St. Louis Federal Reserve database (“FRED”) using data from the Board of Governors of the Federal Reserve System. Data as of February 28, 2022.

With so many factors impacting the economy today, no one knows for certain where inflation is headed. Even the Federal Reserve has changed their views dramatically over the last six months (Exhibit 2). As recently as September 2021, the Federal Reserve’s inflation forecast for 2022 was 2.3% and they expected it would decelerate from there in 2023-24. In their most recent forecast from the March 2022 FOMC meeting, they expect 4.4% inflation in 2022, 2.7% in 2023, and 2.3% in 2024.

EXHIBIT 2

Federal Reserve’s Inflation Forecast Revised Higher



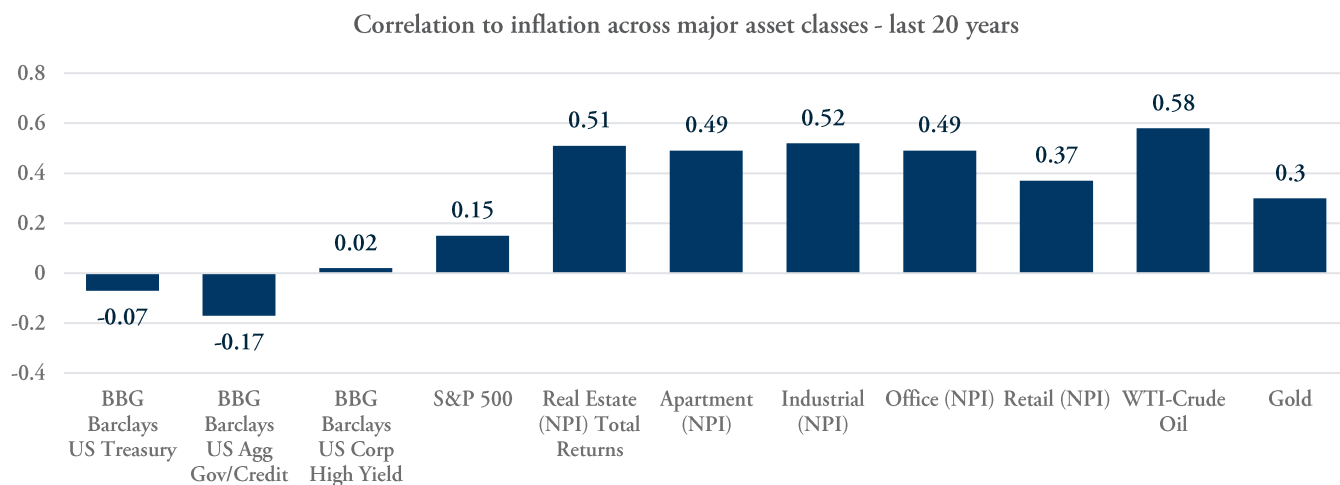
Source: Crow Holdings using data from the Board of Governors of the Federal Reserve System; Federal Open Market Committee meeting minutes and summary of economic projections from the September-2021, December-2021 and March-2022 meeting minutes. The inflation expectations reflect the midpoint of the “central tendency” for the Core Personal Consumption Expenditure projection as depicted in Exhibit 1.

With higher inflation expectations, which asset classes can provide better correlations to inflation? As Exhibit 3 shows, real estate has provided a high correlation to inflation over the last 20 years, as have oil and gold. This is in stark contrast to several other asset classes. For example, the fixed-income market has had a negative correlation to inflation. This is most evident over the past three months as the treasury market experienced one of its worst three-month return in over a quarter of a century. In any given three-month period over the last 25 years, returns in that market have ranged between -1.1% to 3.5% per quarter. For the most recent three-month period though, treasury bonds fell -3.0%. In the past, returns this low or lower occurred only 7% of the time.

Conversely, asset classes with growing earnings, such as the real estate market and stock market, have had a better correlation to inflation, with the real estate market’s correlation to inflation two to three times greater than that of the stock market. However, is real estate a good hedge against inflation today? Typically, real estate has been a better hedge against inflation when demand is equal to or exceeding supply, as evidenced by the market’s current occupancy rate relative to its longer-term average.

EXHIBIT 3

Real Estate Has A High Correlation To Inflation

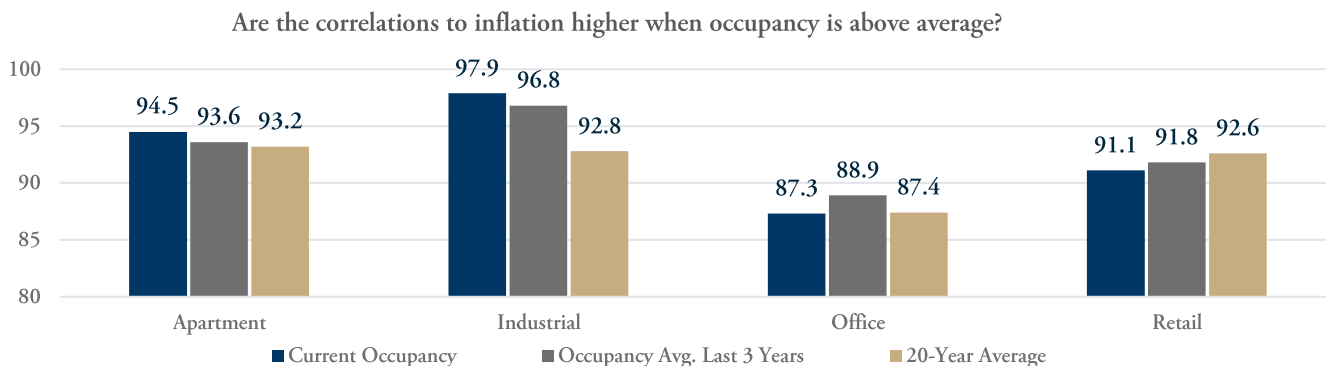


Source: Crow Holdings using data from Bloomberg, U.S. Bureau of Labor Statistics, and NCREIF. "NPI" represents the NCREIF Property Index. The index reflects the unleveraged total return performance for the last twenty years from 2001-2021.

Using data from NCREIF as seen in Exhibit 4, at the end of the fourth quarter of 2021, occupancy rates in both the apartment and industrial markets exceeded their three-year and 20-year averages by a substantial amount. Despite the ongoing challenges in the office market, occupancy rates are on pace with its 20-year average. In contrast, the retail occupancy rate is below both its 3-year and 20-year average. Notably, over 60% of retail properties held by NCREIF are in power centers and malls. Remarkably, occupancy rates are 91.1%, despite the impact of COVID-19. Nevertheless, they remain below average.

EXHIBIT 4

Occupancy Rates Are High Across Most Property Sectors



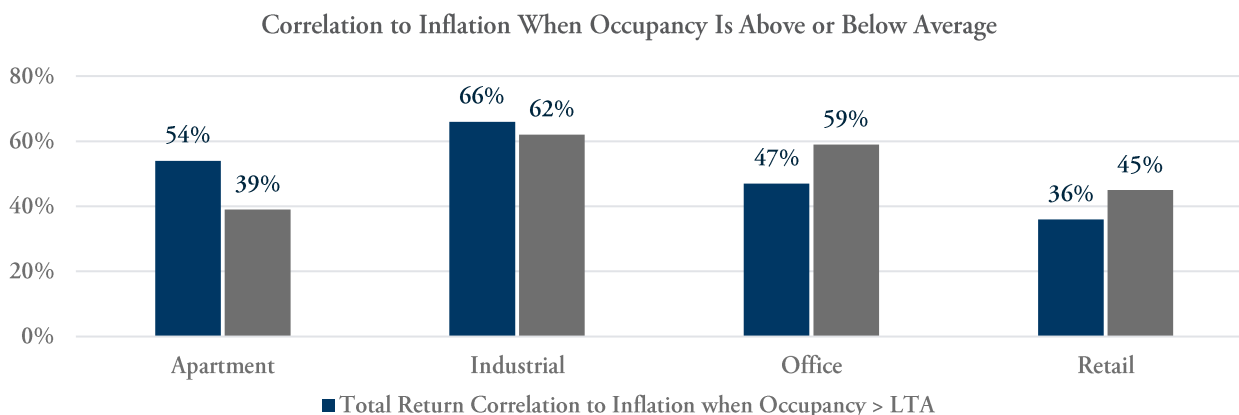
Source: Crow Holdings using data from NCREIF’s property trends report as of December 31, 2021, the most recent data available at the time of this analysis. Data is from 2001-2021.

To determine if real estate is a good hedge “today,” we compared property-sector returns to inflation when occupancy was either above or below average. In those periods when occupancy was below average, each sector’s correlation to inflation was still higher than most other asset classes. However, comparing the correlations side-by-side, apartments and industrial clearly had a higher correlation to inflation when occupancy rates were above average, as they are today. Notably, office buildings and malls had a higher correlation to inflation when the occupancy

of those types of properties was below average. We believe this is the case for two reasons. First, office buildings and malls typically have longer lease terms and struggle to mark leases to market when inflation is accelerating, which results in a lower correlation to inflation. Second, occupancy is below average typically during weaker economic times. Thus, inflation and total returns were lower and more highly correlated with each other when occupancy was below average.

EXHIBIT 5

Strong Fundamentals Can Provide A Better Inflation Hedge



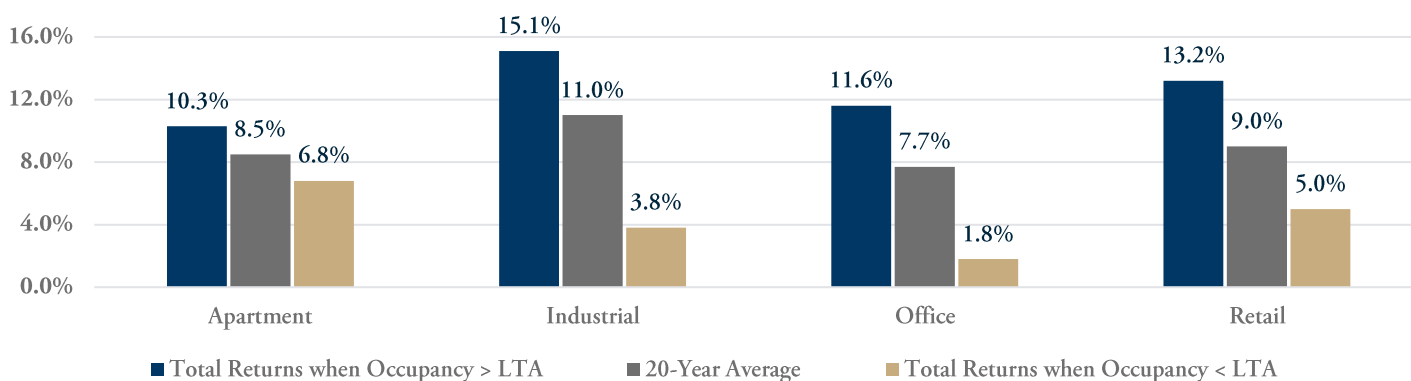
Source: Crow Holdings using data from the U.S. Bureau of Labor Statistics for inflation and NCREIF for total returns. Data as of December 2021 for the 20-year period 2001-2021.

If the correlation benefits weren't enough, the total returns are more attractive when occupancy rates are higher than their longer-term averages (Exhibit 6). Over the last 20-years, the unleveraged total returns for each property sector were competitive with the broader equity markets. When occupancy rates were above average, total returns were well ahead of their long-term average.

EXHIBIT 6

Strong Fundamentals Can Provide A Better Return Outlook

Unleveraged total returns when occupancy is above or below average vs. the last 20 years.



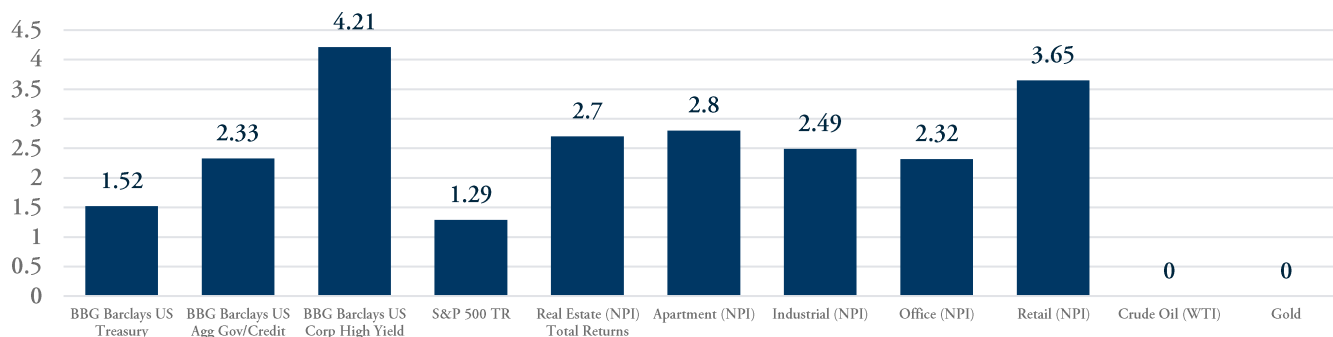
Source: Crow Holdings using data from NCREIF data from December 31, 2001, through December 31, 2021.

Many investors also turn to oil and gold as a hedge against inflation. Indeed, as Exhibit 3 shows, those asset classes have an attractive correlation, much like real estate. However, as “pure-play” commodities, neither asset class pays a dividend. In comparison, at year-end 2021, the dividend yields for real estate were quite attractive and outpaced the other classes shown, except for high-yield corporate bonds (Exhibit 7).

EXHIBIT 7

Real Estate Pays Dividends With Lower Volatility Of Returns

Dividend Yield Year-end 2021



Sources: Crow Holdings using data from Bloomberg and NCREIF. Dividend yields are as of December 31, 2021, the most recent data available from NCREIF. The dividend yield for real estate is the trailing four-quarter income return less retained capital expenditures and divided by average market value in 2021. All yields reflect trailing yields.

In summary, no one can be certain how long the current inflation cycle will persist. Its origins are rooted in trade policies implemented prior to COVID-19 and worsened by the supply-chain issues caused by the pandemic. At the same time, efforts by the Federal Reserve to increase inflation expectations almost certainly play a role, too. Fortunately, supply and demand are in balance in the real estate market, and with demand exceeding supply in the apartment and industrial markets, history has shown those sectors can provide an even better hedge to inflation.



ABOUT THE AUTHOR

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Mark G. Roberts is Director of Research at Crow Holdings, where his primary responsibilities include the development of insights, market research, and commentary on real estate topics of interest to investors, developers, operators, and other industry participants. Mark's position is shared with the Robert and Margaret Folsom Institute for Real Estate at SMU Cox School of Business, where he extends his expertise into the classroom, teaching market analysis and strategy to undergraduate and graduate students.

Mark, a fellow at the Real Estate Research Institute, a regular contributor to the National Council of Real Estate Investment Fiduciaries, and a registered architect, has over 30 years of real estate experience. He recently served as Executive Director of the Real Estate Center at the UT Austin's McCombs School of Business, and he previously served as a Managing Director at DWS Real Estate, where he held several senior leadership positions including Head of Research & Strategy, Alternatives and Real Assets, Head of U.S. Multi-asset & Solutions, and Co-Head of Research.

Prior to joining DWS's Real Estate in 2011, he served as Global Head of Research at Invesco Real Estate, a division of Invesco Asset Management Limited. Mark was the Chairman of the Board of NCREIF, President of RERI, Chairman of the NCREIF Research Committee, and a member of the NCREIF Fund-Index Subcommittee, which developed the NFI-ODCE Index. He initiated and served on the Leadership Committee of the Global Real Estate Fund Index, which is a joint effort of NCREIF (US), INREV (Europe), and ANREV (Asia-Pacific).

Mark holds a Master of Science in Real Estate from the Massachusetts Institute of Technology and a Bachelor of Arts in Architecture from the University of Illinois at Urbana.

ABOUT CROW HOLDINGS

Crow Holdings is a leading national real estate investment and development firm with more than 70 years of history, \$24 billion of assets under management, and an established platform with a vision for continued success. Crow Holdings pursues compelling investment opportunities through a range of strategies, product types, and ventures, consistently seeking to create value for its investors, partners, and communities. Operating from 17 offices in key markets across the U.S., Crow Holdings has extensive industry reach and expertise in multifamily, industrial, office, and specialty sectors, having developed or acquired more than 225 million square feet of real estate. The firm's ongoing legacy is rooted in its founding principles: partnership, collaboration, and alignment of interests.

ABOUT SMU FOLSOM INSTITUTE FOR REAL ESTATE

The Margaret and Robert Folsom Institute was established at the SMU Cox School of Business in 1984 through a generous gift from former Dallas mayor and real estate developer Robert Folsom. It has been the backbone of real estate activity at SMU, supporting research and the real estate academic programs at both the BBA and MBA levels. The Institute is cultivating tomorrow's real estate leaders through its dedication to academic excellence, applied learning, thought leadership, and career development.

Disclaimer & Footnotes

Disclaimer

The commentary reflects the thoughts of the author as of Dec. 31, 2021. This information has been provided by Crow Holdings Capital. All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. This is not to be construed as an offer to buy or sell any financial instruments and should not be relied upon as the sole factor in an investment-making decision. The views and opinions expressed are those of the author at the time of publication and are subject to change. There is no guarantee that these views will come to pass.

Footnotes

¹ “U.S. to Begin Review of Tariffs on \$300 billion of China Imports”, Bloomberg News, March 5, 2022.

² U.S. Department of the Treasury as reported by the St. Louis Federal Reserve for the period March 30, 2020 – December 31, 2021.

³ Board of Governors of the Federal Reserve System, Release H.4.1, Factors Affecting Reserve Balance as reported by the St. Louis Federal Reserve.

⁴ U.S. Census Bureau of occupied housing units as of December 2020, the most recent data available from the American Community Housing Survey.

⁵ In addition to conducting the nation's monetary policy, the Congress has tasked the Fed with promoting the stability of the financial system, promoting the safety and soundness of individual financial institutions, fostering the safety and efficiency of payment and settlement systems, and promoting consumer protection and community development. These tasks are reviewed in Board of Governors of the Federal Reserve System (2016), *The Federal Reserve System: Purposes and Functions (PDF)*, 10th ed. (Washington: Board of Governors).

⁶ For a full text of the speech, please see the following link:

<https://www.federalreserve.gov/newsevents/speech/powell20200827a.htm>

⁷ In addition, the Personal Consumption Expenditures (PCE) Index, ex-food, and energy, also produced an average of 1.7% inflation from 2000-2020. The PCE Index is the Federal Reserve's preferred inflation measure and provided evidenced that the Federal Reserve was not achieving its goal of 2.0% inflation which may have led to a change in their policy implementation approach.

⁸ Bureau of Labor Statistics, August 2020