

THE LONG AND WINDING ROAD TO RECOVERY - PART 3 - INFLATION, INTEREST RATES AND US BOND MARKETS

We recently distributed the first two in a planned series of papers about the Great Lockdown crisis that share a common title and theme, “The Long and Winding Road to Recovery”. The US Economy and the US stock market, respectively, were the focus of these first two papers (please click these links for [Part I](#) and [Part II](#)). We discussed hypothetical recoveries from the worst economic contraction since the Great Depression: a V-shaped recovery (in which the economy fully recovers by December 2021) and a slower U-shaped recovery (recovery period prolonged through December 2023). With respect to the US stock market, we summarized the first two legs of the market’s immediate response to the crisis – a short, sharp downturn followed by an equally short, strong rebound – and discussed total return possibilities through December 2022 given future earnings uncertainties and the market’s not-so-bad YTD total returns in the face of unprecedented medical, societal and economic uncertainties.

As reflected in the subtitle to this piece, it focuses on the intersection of inflation, interest rates, and US bond markets. This paper reviews past data for each and provides perspectives on expected trends across the next several years.

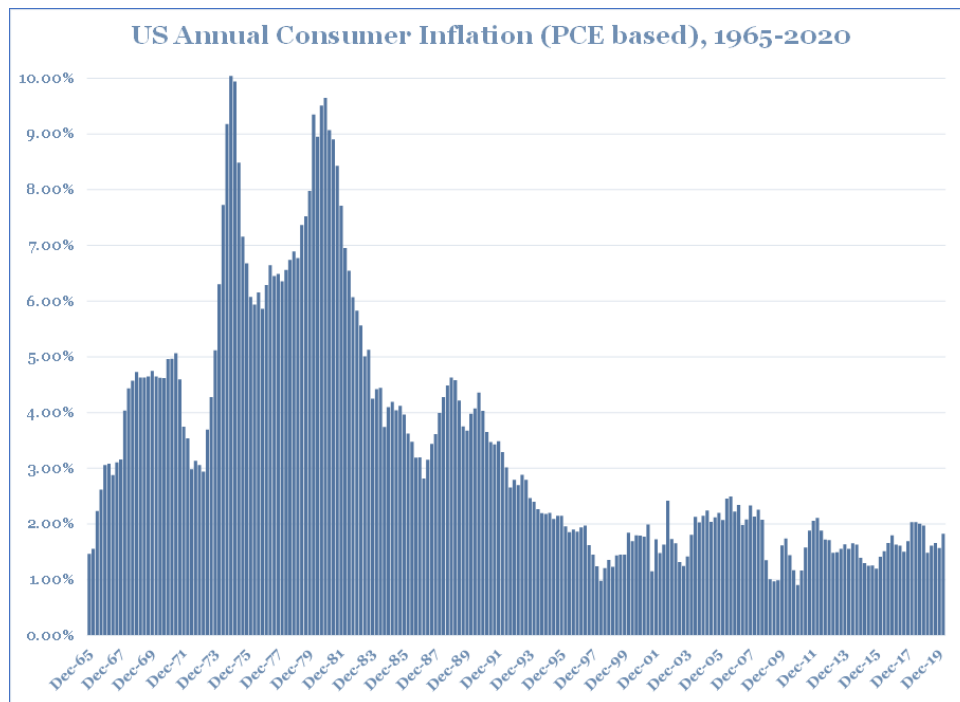
The uncertain way through and past the COVID-19 virus crisis and Great Lockdown economic crisis informs the “Long and Winding Road to Recovery” theme that we have explored here and in the two preceding papers. Virus issues aside – though clearly, whether it is now peaking or returns with a vengeance later this year supersedes all other considerations – a full recovery from the record setting decline in US and global economic activity will likely take years. And the road to recovery may lead to outcomes and consequences that are not presently anticipated by forecasters, by capital markets and by us.

US Inflation in Context

To understand where US inflation (particularly, prices paid by US consumers) is headed both near-term and across the next few years, it is useful to have a baseline understanding of its pre-crisis history:

- A variable and generally upward trend of prices (inflation) across the full breadth of the economy over time is an economic given. Inflation generally does not depend on the balance between the supply of/demand for goods and services within the economy so long as it meets collectively “anchored” expectations and remains within a narrow (e.g., its +1.5% to +2.5% range across much of the last 30 years) band. The greater worry: periods of sharply rising prices (see 1978-1980 example below) or of declining prices (deflation; see Japan example below).

- In the US, the Consumer Price Index (compiled by the US Bureau of Labor statistics) and the Personal Consumption Expenditures Price Index (Bureau of Economic Analysis) are the primary benchmarks used to calculate/report on price trends. Though their methodologies and short-run results are somewhat different, each seeks to measure in detail the changing prices of virtually every good and service purchased by US consumers.
- Price data, combined with information on the volume of consumption, forms a basis for understanding trends in the broad US economy. The PCE-based price measure is the Federal Reserve Bank's preferred metric for inflation; the Fed's stated goal is to use its policy tools to support full employment (low unemployment) within the US economy while keeping overall annual price increases close to its stated target (recently, 2%).



- The US economy has not experienced periods of rapidly rising and extremely high inflation since the 1970s (1973-1974; 1978-1980). Both outcomes were the direct consequence of OPEC-driven increases in the price of oil: +300% in 1974 and +175% from 1978-80. There has not been a protracted period of declining prices (deflation) in the US since the Great Depression.
- The initial response of an economy reacting to an unexpected surge in goods and services prices: a contraction in consumer demand in the face of wage income that initially falls short of price increases (e.g., in the 1970s, initially more of consumers' incomes were spent on energy, leaving less to spend

elsewhere). Lower spending within the economy leads to job losses, which lead to less spending and, ultimately, to a recession. In 1980, for example, inflation (PCE measure) increased to +10.9%, unemployment rose to 7.5% (peaking two years later at 10.8%), and US GDP growth decelerated from a +3.2% rate in 1979 to -0.3%.

- Japan, the economy of which boomed from the 1960's through the 1980's to become the world's second largest, has experienced a 25-year period of restrained consumer spending and moribund economic growth (annualized GDP growth of +0.9%) since 1995. The response of an economy plagued by low consumer demand: paltry growth in wages, rising (but mostly unsuccessful) government expenditures to boost consumer spending, and several long periods of deflation (in Japan, prices declined an average -0.3% per year from 1999-2007).
- The globalization of economies generally – and of the US economy in particular – contributed to a period of low inflation from the 1990s through the present. The US “exported” a substantial amount of goods production to lower-paid workers in other parts of the world, most notably China, keeping a lid on prices. In the aftermath of the GFC's recession (the unemployment rate peaked at 10% even as the recovery got underway) and curtailed consumer demand, US inflation bottomed at +0.9% in 2010. Thereafter, it averaged +1.6% across the 10-year long economic expansion which only recently came to an inglorious end.

Fiscal Stimulus and Future Inflation

The US government has passed several pieces of legislation that provide an unprecedented amount of emergency funding (roughly \$3 trillion to date) to go up against an equally unprecedented surge in unemployment and a 6-month or longer contraction in the US economy that is most likely the worst since the Great Depression. The size of this spending – roughly 14% of GDP – has sparked discussions about how this record stimulus might affect price trends in the economy.

Near term, there is little doubt that the Great Lockdown has resulted in a “demand shock” that will produce deflationary price trends globally and in the US. It is conceivable that wage income, small business profits and rental income, and interest and dividends – collectively, \$14.7 trillion in 2019 – could shrink by an amount greater than planned direct emergency government spending (versus specific funding for the Federal Reserve to support business lending activities).

From our perspective, the Payroll Protection Plan, enhanced unemployment benefits (at best, replacing most of an average salary) and \$1,200 one-time cash distributions to a high percentage of people seem unlikely to put consumers collectively in a position to boost their purchase activity to levels that would push prices sharply

higher. Likewise, spending programs to support hospitals and lending to support small business will not flood the economy with excess cash; at best, it will keep many of these entities afloat. Consensus forecasts for consumer spending (plunging during the current quarter, rebounding across the year's second half) currently project a net decline of nearly \$1 trillion (4%) in purchases of goods and services in 2020. Core inflation (price changes excluding energy and food) is projected to rise just +1.4%. There is, of course, little certainty that these short-term forecasts materialize, as any number of the assumptions built into them (e.g., the pace with which businesses re-open, the speed with which the unemployed are re-employed) may not occur as predicted. Our perspective: actual price declines may fall short of this estimate in the face of a slow rebound and depressed consumer confidence. [i]

Looking beyond 2020, the path traced by the economy (e.g., a V- versus a U-shaped recovery) will be the greatest determinant of inflation; much of the government's Great Lockdown emergency funding will not be sustained post-crisis. For example, the overwhelming majority of CARES act spending (over 90%, according to the Congressional Budget Office estimates) is scheduled to occur during 2020. Thereafter, we believe that rising employment will boost wage income and substantially shrink unemployment-related costs. A best case outcome might outpace the post-GFC path (when combined wages/business profits/rental incomes rose +16% across 5 years as unemployment declined from 10% to 6% and unemployment compensation claims and costs fell -47% and -80%, respectively) during which annual inflation averaged +1.6%.

What cannot be predicted now – but certainly merits mention – is the extent to which the COVID-19 virus and the Great Lockdown ultimately change any key fundamentals underpinning the US and global economies across the past several decades. With emergency funding perhaps increasing US debt to more than 125% of GDP, is the economy headed toward a “Japanification” (a moribund economy, low consumer spending and price deflation)? Or could there be “supply shocks” in the future that curtail the production and/or supply of goods (the result of a resurgent pandemic that limits availability of medical supplies; or, an evolution away from global supply chains toward high cost domestic alternatives) that result in rising inflation? Suffice it to say that these types of dramatic yet divergent scenarios are easier to envisage than they are to reasonably model or to assess as more likely than not.

Interest Rates and Inflation

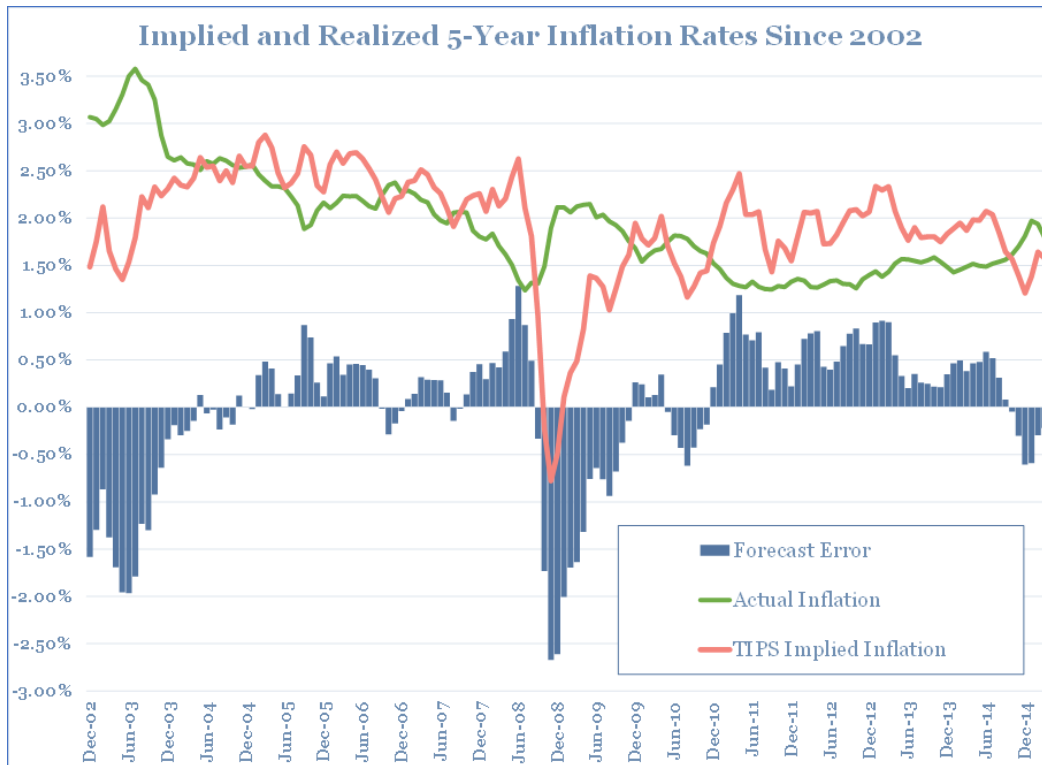
Inflation rates – and inflation expectations – are a key contributor to most global interest rates. [ii] Normatively, the rate of interest paid to lenders (charged to borrowers) is directly related to the time for which money is lent and the perceived creditworthiness of the borrower. Beyond the ultimate return of their funds as a paramount objective, lenders also want the periodic rate of interest they receive to protect the purchasing power of their capital; they expect to earn an *inflation premium*. And because the creditworthiness of borrowers and the uncertainty around

future inflation both increase with time, long-term interest rates are ordinarily higher than short-term interest rates.

For decades, financial markets largely relied on survey data and econometric models to estimate expected future rates of inflation. But starting in 1997 (and earlier in some countries), the US Treasury began issuing Treasury Inflation Protected Securities (TIPS) that now provide markets with data on consensus inflation expectations. These securities, issued with varying (i.e., 5-, 10-, and 30-year) initial maturities, offer stated interest rates that are below those of fixed-rate Treasury bonds with similar maturities. TIPS face values, however, get grossed-up for actual inflation across an individual security's life (e.g., \$1,000 of face value would grow to almost \$1,200 if annualized consumer price inflation equaled 1.70% across a 10-year life).

Beyond this express US Treasury "guarantee" that protects investors' purchasing power, the ability to compare current market yields on TIPS and traditional Treasury bonds with like maturities provides real-time perspective on current inflation expectations. Currently (late April 2020), yields of +0.36% and -0.39%, respectively on 5-year Treasury and TIPS bonds imply consensus inflation expectations of +0.75% annualized through 2025. The comparable data for bonds maturing in 10 years: +1.12% of expected annualized inflation through 2030.

As with any longer-term market forecasts (and, with the evidence of greater forecast error the longer the forecast), the TIPS market's inflation forecasts have been reasonably good but not spot-on accurate. As shown below, TIPS' *implied inflation* rates have mostly over-stated *realized inflation* across 5-year long horizons since 2004. The most notable exception: the false forecast of a sustained deflation implicit in TIPS market expectations during late-2008:



Expectations for the US Bond Market

Not surprisingly, the adjective "unprecedented" applies equally well to bond market yields as to the economy during this uncertain Great Lockdown. Benchmark US Treasury yields, which fell sharply during the GFC, never fully recovered during the ensuing 10-year long economic expansion. Federal Reserve efforts to normalize rates from 2016-2018 (when they boosted the benchmark Fed Funds rate from 0.25% to 2.50%) foundered in the face of concerns that higher rates were putting the economy at risk. Previously, the Fed had successfully boosted rates to 5.00% as the economy recovered from its more modest 2001 recession. More accommodative policies during 2019 – made with absolutely no foreknowledge of the pending crisis – have left the Fed with little room to deploy its traditional monetary policy tools (the efficacy of which in fighting a global pandemic-driven business shutdown were in any case suspect). Instead, it has now deployed a “do whatever it takes” approach to providing ample lending and financial market liquidity during the Great Lockdown.

The table below illustrates the unprecedented lows to which virtually all Treasury yields have fallen currently in comparison to the prior four decades (within which the 1980s were equally unprecedented, with actual inflation declining from 9.7% to 3.7%; inflation expectations and interest rates gradually adjusted to a *new normal* during the subsequent decades):

Average Inflation and Yields, 1979-2020

Decade	Inflation	T-Bills	2-Yr Treas	10-Yr Treas
1980s	5.3%	9.05%	10.12%	10.49%
1990s	2.4%	5.31%	6.07%	6.85%
2000s	1.8%	2.74%	3.30%	4.47%
2010s	1.6%	0.53%	0.97%	2.55%
Current	1.3%	0.10%	0.22%	0.66%

None of the current yields shown in the table above would provide investors with real returns versus current inflation or inflation expectations across the next 5-10 years. Given our view that post-crisis inflation will rise modestly (e.g., it will likely approximate the 1.6% to 1.80% average price rises of the last two decades), we also expect to see “two handle” (2.00%+) yields and modest real returns on some longer-maturity Treasury bonds by mid-decade. Thereafter, a new era for fiscal policies (a mix of spending restraint and higher tax rates) may be inaugurated to better control total debt but at a cost to future economic growth.

As with all such projections, the possibility exists that supply or demand shocks could upend these expectations. There is a near-certain prospect of continued elevated levels of US government borrowing – a record high supply – will boost government debt to levels unseen since World War II. And that Treasury bonds will command a growing share of the US bond market (rising from their current 37%). But we would categorize as unlikely the possibility that such growing supply will push Treasury inflation premiums materially higher. If anything, investors may require that less creditworthy borrowers (e.g., corporations) pay slightly higher yield premiums to attract capital away from Treasuries. And, on the demand side, we think that a strong US economy (vis a vis the balance of other developed markets) and the USD’s continued reserve currency status will preserve Treasuries’ role as the lowest-risk global bond market and, we think, preclude yields from approaching even 1990s levels in order for investor demand clear available supply.

Unprecedented and Uncharted

As we metaphorically go down the “Long and Winding Road to Recovery”, some of the key and inter-related datapoints that capital markets and investors will be predicting/looking at/reacting to will include:

- Unemployment: How high does it go, and how quickly does the rate begin to decline after the US economy has “re-opened”? How much additional government spending might be needed to keep consumers and businesses afloat?
- Consumer Spending: How much (if any) of foregone 1Q and 2Q spending gets put back into the economy across the year’s final two quarters? How

debilitating was COVID-19 to certain industries (hotels, airlines, restaurants) and to small businesses?

- **Inflation:** How much disinflation (slowing rate of inflation) or deflation (falling prices) occurs and for how long? How quickly and how much will prices rise once a recovery becomes well-established?
- **Interest Rates and Bond Market Yields:** To what extent will aggressive US fiscal and monetary policies affect interest rates and bond market yields after the crisis abates?
- **Corporate Profits, Dividends, and Stock Market Prices:** How have individual companies and sectors fared during the crisis, how rapid is any earnings rebound, and to what extent has the stock market already “discounted” likely corporate outcomes?

Our final (and, we hope, reassuring) perspective, borrowing from the lessons of history and from the way in which people worldwide are comforting themselves in this truly unprecedented time, “This Too Shall Pass”.

**Investment Strategy Team
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[i] The collapse of spot crude oil prices (excluding a brief futures-related negative price) from \$60/barrel to a low of \$13 will exert a downward influence on overall consumer prices; however, energy's current 6.5% weighting in CPI calculations limit the overall effect of the decline on aggregate inflation.

[ii] Short-term interest rates established by central banks (e.g., the US Federal Reserve) are a notable exception. These rates establish a baseline/reference rate that influence other interest rates determined primarily by capital market forces.

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