

# Inflation Fixation

## Where Will It End?

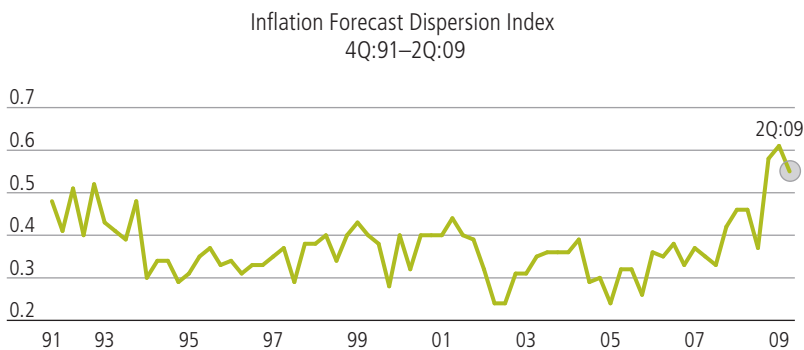
### The Inflation-Deflation Tug-of-War

The debate about inflation—a persistent increase in the level of consumer prices or a persistent decline in the purchasing power of money—has become increasingly intense, and complicated. On the one hand, with many developed economies in recession, consumer prices low, and unemployment high, *deflation* seems to be the more immediate danger. On the other hand, with the recent deluge of government spending and the Federal Reserve printing money like never before, some see rising inflation as the inevitable, if more distant, outcome. In fact, the US economy has never before experienced such significant inflationary and deflationary pressures *at the same time*.

This anomaly has flummoxed most economists, and has led to a sharp rise in the level of disagreement among their forecasts for inflation. Indeed, the range of 10-year inflation estimates, as measured by a dispersion index, is wider than it has been at any point over the past two decades (*Display 1*).<sup>1</sup> (*continued*)

Display 1

#### Real confusion: Uncertainty about inflation is at an all-time high



Source: Federal Reserve Bank of Philadelphia Survey of Professional Forecasters

<sup>1</sup>The dispersion index is calculated by dividing the difference between the top and bottom decile forecasts for 10-year inflation by the median forecast.

### SUMMARY

Economists' views on the likelihood and severity of inflation have rarely diverged as widely as today. In this paper, we present a conceptual framework for anticipating inflation. Our findings suggest that sharply rising inflation is extremely unlikely in the near term, and if it does materialize it will do so only after the economy fully recovers.

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(continued from cover)

The outcome of this tug-of-war has important implications for most investors. In a deflationary environment, high-quality nominal bonds would provide some protection. However, a sharp rise in inflation would have a substantial negative impact on a diversified equity and bond portfolio. With so much uncertainty—and so much potentially at stake for investors—we undertook a historical and theoretical analysis of the drivers of deflation and inflation to better understand how they can spur an economy on toward different outcomes. Our research showed that:

- Current economic indicators suggest *deflation* may be a more imminent concern, while sharply rising inflation is a more intermediate-term worry, likely to emerge only *after* the economy fully recovers.
- For rising inflation to materialize, the three key drivers of pricing changes—economic growth, wage growth, and money and credit growth—must all *simultaneously* run “high,” whereas for deflation to occur, all three together must have “low” readings.
- Most of the paths that ultimately lead to sharply rising inflation require both a healing of the financial system and a recovery in the economy, a scenario that would likely benefit investors with equity-oriented portfolios.

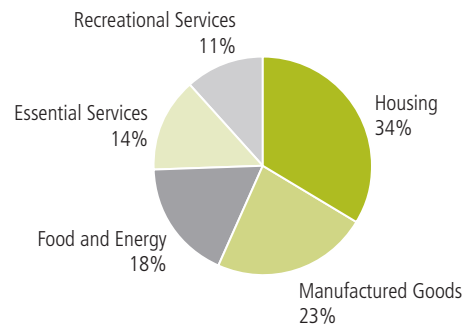
### In Our Beginning Is Our End

To get our bearings on the prospects for inflation in the coming months and years, we first have to assess where we are now—current conditions. And today’s environment surely doesn’t appear, on the surface, to portend inflation.

To get a snapshot of current conditions, we decomposed the primary gauge of inflation in the US, the Consumer Price Index (or CPI), into its various components. Once we adjust for some overlaps, it becomes clear that housing and its related rent measures amount to just over one-third of the index (*Display 2*). With home prices still falling and vacancies at 40-year highs, it’s unlikely the housing component of the CPI will register

Display 2

### Housing and manufactured goods, big pieces of the inflationary pie, are dormant or declining



*In this breakdown of CPI components, Housing includes Rent of Primary Residence and Owner’s Equivalent Rent; Manufactured Goods includes Apparel, Private Transportation (excluding fuel), and Recreational Products; Recreational Services includes Food and Alcohol (away from home) and Home Recreational Services; Essential Services includes Public Transportation, Medical Care, and Education and Communication; and Food and Energy includes Food and Alcohol (at home), Home Fuels and Utilities, and Motor Fuel.*

*Source: Bureau of Labor Statistics*

sharp increases anytime soon. Similar slack is evident elsewhere: Manufactured goods make up almost one-fourth of the index, yet manufacturing capacity utilization, at less than 70%, is at its lowest point since records began in 1948. Such excess capacity can prevent firms from raising the prices of manufactured goods even if other inflationary forces are present. Combined, these two categories constitute over 50% of the CPI, yet they’re largely quiescent—in fact, they’re *deflationary*. Therefore, we believe that worries about rising inflation in the near term are premature.

In addition, with several key deflationary forces so pronounced in the economy today, it’s hard to see how either 1970s-style US stagflation or hyperinflation<sup>2</sup> like that experienced by Germany after World War I could materialize in the near or even intermediate future. Episodes of stagflation or hyperinflation do not spring spontaneously out of deflationary environments but, rather, tend to occur only after long periods of high inflation, which we haven’t seen for more than two decades. However, because we may encounter sharply rising inflation at some point

<sup>2</sup>Stagflation occurs when economic fundamentals are weak but prices continue to rise for a prolonged period. Hyperinflation occurs when there is a 50% increase in the level of prices from one month to the next.

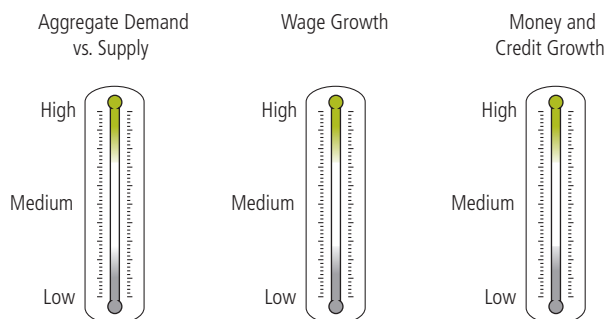
in the future, and because it can generate severe headwinds for even a well-diversified stock and bond portfolio, we have focused our current analysis on that possibility.

### Framing Inflation: Feeling the Heat?

Milton Friedman’s famous maxim of “too much money chasing too few goods” nicely sums up the inflation story. For insight into what needs to happen for us to enter a prolonged period of rising inflation, let’s pick this statement apart a bit: How do we get “too many” or “too few” goods (a question of aggregate demand versus supply)? What allows consumers to “chase” those goods? And what is “money”? These three factors, each of which can be gauged from low to high, make up the key measures of our inflation framework (*Display 3*).<sup>3</sup>

Display 3

#### Three key factors form our inflation framework



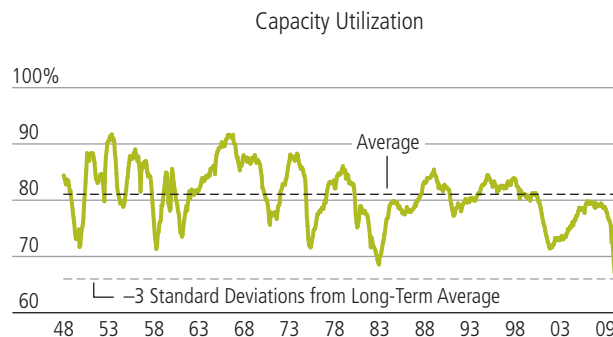
Source: AllianceBernstein

### Aggregate Demand vs. Supply

At the core of Friedman’s dictum are “goods,” or, more broadly, “goods and services.” In an economy that’s overheating, the government, corporations, and households try to buy more goods and services than the economy can produce, and so prices get bid up. Theory (and recent experience) tells us that prices are unlikely to rise significantly as long as more goods are produced, or can be produced, than are demanded. After all, why would

Display 4

#### America’s productive capacity has gone idle



Manufacturing capacity utilization from 1948 through 1967, and aggregate capacity utilization thereafter.

Source: Federal Reserve Board

producers raise prices when they (and their competitors) are sitting on idle capacity? And today the slack in capacity is at record levels, with the latest reading for capacity utilization *three standard deviations* below its long-term average (*Display 4*).

What could change this situation? One could imagine that a “supply shock,” such as a commodity price spike, could induce firms to raise prices even when there is slack elsewhere in the system. But what is arguably more likely (and is widely feared) stems from the demand side: that today’s historic levels of government spending will not only increase short-term aggregate demand, but will also spawn a large and looming deficit, raising the prospect, longer term, of higher taxes, higher interest rates, and lower economic growth. While such deficit-creating stimulus is not inherently inflationary, it could become so if the Federal Reserve is forced to fund future deficits by printing even more money. However, that is a danger that lurks further out in time, and any increase in demand would first have to pick up the current slack in the economy before broad price increases became a concern.

<sup>3</sup>Our framework marries the essential teachings about inflation from the major macroeconomic schools of thought with empirical evidence from a study of 180 countries over the past 40 years. Among other things, the empirical analysis examined those periods when a country went from low inflation (0%–5%) to high inflation (10%+) over a five-year span. Of these periods, 100% exhibited above-average money growth, 95% showed above-average wage growth and, qualitatively, 100% inflation had aggregate demand exceeding aggregate supply.

Display 5

### A sudden shrinkage in wage growth means less consumer spending power



Wage growth is measured by the year-over-year percentage change in average hourly earnings.  
Source: Bureau of Labor Statistics, Federal Reserve Board, and Haver Analytics

#### Wage Growth

How do wages figure in? It's hard for consumer prices to rise dramatically without a significant increase in consumer income. This doesn't seem likely today, as unemployment is expected to reach double digits at some point in the next 12 months. And wages, in the face of rising unemployment, are growing far below their long-term average (*Display 5*). With household borrowing at record lows and no foreseeable rise in income ahead, it is difficult, if not impossible, for the average home to spend more on the average good.

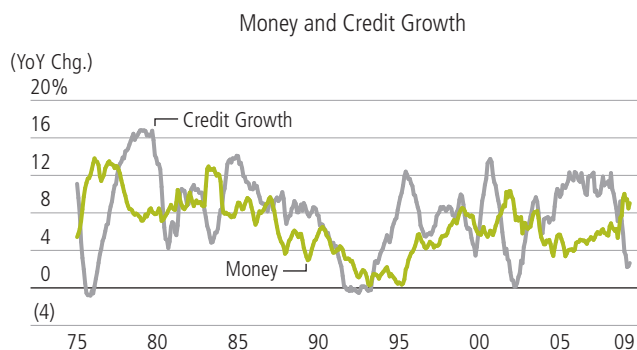
But is there any way aggregate wage growth can occur in an environment of high and rising unemployment like that of today? An increase in "buy America"-style protectionism, prompted by recession-stoked nationalism and government regulation, might start us down that road. Likewise, a spike in unionization could shield labor from competition, helping to generate demand for wage growth in excess of any offsetting gains in efficiency. But absent that kind of multiyear shift in the political and economic landscape, significant wage increases will most likely come only when the economy next reaches and then exceeds full employment.

#### Money and Credit Growth

Then there's the all-important question of "too much money." Arguably the greatest fear surrounding the US economy today is that central bank "money printing" will inevitably lead to

Display 6

### Money is growing even as credit growth slows



Money is measured by the year-over-year percentage change in M2 (currency, checking, savings and money-market accounts); Credit Growth is measured by the year-over-year percentage change of loans and leases by commercial banks.  
Source: Bureau of Labor Statistics, Federal Reserve Board, and Haver Analytics

runaway inflation. While it is true that persistently rising inflation cannot occur without increasing the money supply, the inverse does not necessarily hold. Central banks directly control base money supply (the reserves necessary to enable banks to lend) but not the broader measures of money (actual lending by banks and other credit channels to private businesses and individuals), and it is the broader measures that affect the economy. In other words, the central banks control the spigot, but a kink in the hose (caused by tightened lending standards on the part of the banks or a collapse in the so-called shadow banking system) could parch the broader economy. And while banks today may be awash in Fed-driven liquidity, the credit channels—though beginning to loosen—remain tighter than usual (*Display 6*).

For a recent case in point, consider Japan: Throughout the 1990s the Bank of Japan printed money and the government ran enormous fiscal deficits, but as long as the Japanese banking system remained saddled with bad loans, these policies had little effect on broader money supply, and the Japanese economy remained mired in deflation. Simply put, an increase in base money supply does not inevitably lead to inflation, much less to runaway inflation. The Fed may be printing money, but if the banking system is unable or unwilling to lend and individuals and corporations are disinclined to borrow, then the inflationary impact of the current liquidity explosion will be muted, or preempted altogether.

In our view, these three factors—aggregate demand vs. supply, wage growth, and money and credit growth—are the essential drivers of inflation. But key to the inflation equation is that all three must rise together toward the “hot” extreme of the temperature gauge. If all three measures become elevated, *and* we continue to run trillion-dollar fiscal deficits, *and* the Fed leaves policy too loose, then we may indeed find ourselves well on the way toward a worrisome inflationary period.

Should such an environment transpire, long-term inflation expectations could become unmoored from their 2%–3% historical average. And in an economy running at full steam, rising expectations could become self-fulfilling as workers demand pay increases and employers, sharing those expectations, provide them. With continued loose monetary policy, this chain of events would lead to the dreaded “wage-price spiral,” reminiscent of the 1970s.

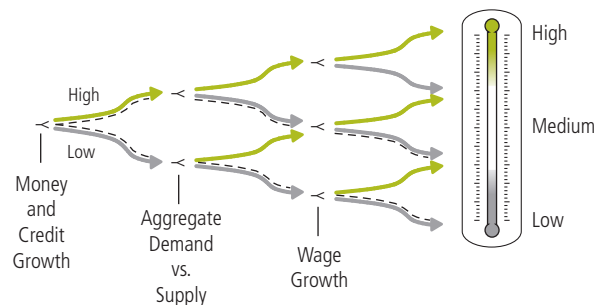
### Getting Real: Assessing the Future Path

We seem to be a long way from such a scenario today. But the longer-term economic environment is simply too hard to call, and the indicators are always changing. We are therefore continuously monitoring the temperature of the three key variables and assessing the path that our economy is likely to take over time (*Display 7*). Note that this inflationary map is not meant to imply any necessary sequence in the measures: No single factor, regardless of the degree of its reading, is sufficient on its own to determine the likely outcome, nor does an increase or decrease in a given reading need to precede or follow the others. But by tracking from left to right in the display, we can cumulatively project, based on the reading of the data at any point in time, the most likely path for the economy.

What is our likely near-term path based on the current readings of these components? The first fork in our path, money and credit growth, is hard to call, given their conflicting measures: In spite of the unprecedented increase in base money, the supply of credit and the likely demand for it will remain weak for some time. At the next juncture, the weak outlook for aggregate demand means we take the low road there. Finally, the latest news on wages suggests growth there may actually turn negative, so we must take the low road once again. Therefore, from our perspective, the start of a CPI inflation cycle in the coming months seems unlikely.

Display 7

### Currently, the three factors do not point to rising inflation



Source: AllianceBernstein

However, such a benign current outlook should not be interpreted as the sounding of an “all clear” for the intermediate term and more distant future. In the longer term, the biggest inflationary risk may be rooted in a shift away from competition and market-driven forces toward a world with bigger government and stricter regulations. In addition, while the Fed does have the tools it needs to remove the liquidity it has been providing, history shows that it is politically difficult to end government-funded programs once started, especially if improved economic performance depends on their existence. And trillion-dollar deficits accompanied by loose monetary policy, if sustained long enough, will raise the temperature on all of our thermometers, likely leading to a period of harmful inflation. Therefore, by monitoring the efficiency with which the Treasury and Federal Reserve dismantle their programs, we can detect whether signals of an inflationary surge are developing in the aftermath of the recession.

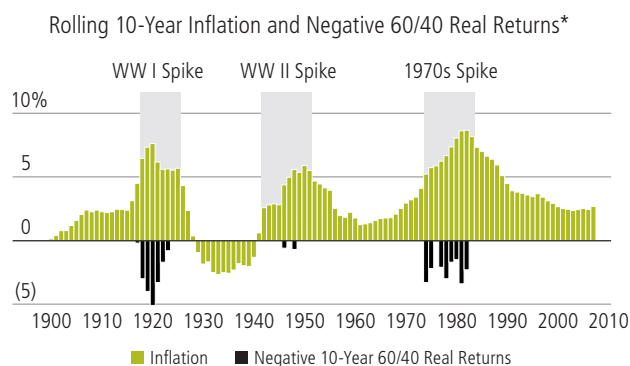
### Real Investing: An Inflationary Tailwind Ahead?

What does all this mean for investors? Rising inflation and deflation have rather basic consequences in terms of individual liabilities—how much things cost. But the tug-of-war between inflationary and deflationary forces also has important, if less obvious, ramifications for investors.

In a deflationary environment, a portfolio of high-quality nominal bonds would provide some protection: The inflation-adjusted value of fixed nominal coupons will rise and presumably interest rates will drop further, providing capital gains to bondholders. However, in an environment of sharply rising

Display 8

### Real stock and bond returns suffer in rising inflation



\*60% stocks/40% bonds = S&P 500 and 10-year Treasuries  
Source: Bureau of Labor Statistics, Global Financial Data, and Standard & Poor's

inflation, our research shows that portfolios of stocks and bonds would be severely punished. The US experienced three rising inflationary tides in the 20th century, and they were the only periods in which a 60% stock/40% bond portfolio suffered a negative 10-year real return (*Display 8*). In other words, inflation can do substantial damage to a traditional portfolio.

With that in mind, and in advance of any sustained economic recovery, we are exploring an asset allocation framework to determine which investors are more likely to need protection against the damage inflation can cause, along with the best ways to provide that protection. We've analyzed a range of assets, looking back over more than 100 years of history—as well as prospectively, using our Wealth Forecasting System—to assess how they react to different inflationary and deflationary regimes and to weigh both their relative benefits and costs.

The results of this analysis show that there is no one solution for all investors. For those whose primary objective is to *preserve* their real wealth over a short time horizon, and to do so with a

minimum of risk, the answer may be some allocation to inflation-linked bonds, possibly including Treasury Inflation-Protected Securities, or TIPS, which are designed to simply pass through changes in the CPI. However, because TIPS are notoriously tax-inefficient, taxable investors may want to reserve such an allocation for their IRA or other tax-deferred accounts, or else consider a more "tax-aware" solution.<sup>4</sup> For those who wish to *grow* their wealth to cover inflation-adjusted spending, but who have a longer time horizon and can endure greater swings in volatility, a larger allocation to real estate equities and other high-returning assets that are correlated to inflation may be in order. Our research in this area frames the trade-offs of these "real" assets to help investors arrive at their preferred mix of inflation insurance for the portfolio.

However, until all three thermometers begin to show signs of heating up, there is good reason for investors with a diversified allocation of stocks and bonds to take some comfort in their existing portfolio. Most of the paths we can envision leading from the current environment to a period of rising inflation involve both a healing of the financial system and a recovery in the economy. And investors with a substantial allocation to risk-bearing assets, including stocks and real estate equities, would benefit as the recovery takes hold.

So, for the time being at least, we are actually *hopeful* that the signs of a modest increase in inflation begin to appear in the near future, as it would signal the advent of an economic recovery and fuel the equity component of a diversified portfolio. But we remain vigilant, wary of the possibility that the recovery could ignite a more sustained and potentially more deleterious rise in inflation. In the meantime, we are using our latest research effort to develop a suite of products specifically designed to help insulate different types of investors against the potential damage from future inflation. ■

<sup>4</sup>For those taxable investors interested in acquiring some inflation protection but lacking sufficient capacity in their tax-deferred accounts to accommodate their desired allocation to TIPS, we are researching a tax-aware version of inflation-linked bonds, which can be held in investors' regular, taxable accounts with substantially the same tax benefits that their municipal bond portfolio offers.

## About the Author

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Mr. Ruff joined the firm in 2004 as a senior portfolio manager and was appointed a Director of the Wealth Management Group in 2006, and of Dynamic Beta Strategies in 2009, working out of the San Francisco office. Prior to joining Bernstein, he was the senior investment professional for a large family office, and before that he traded mortgage-backed bonds and monitored proprietary trading risk at Goldman Sachs in the US and Japan. Mr. Ruff earned a BS from the University of Virginia and an MBA from Northwestern University. He is a Chartered Financial Analyst charter holder.

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