

Inflation: Don't Pop the Champagne (Yet)

July 2023

With inflation now running below 3%, many are breathing a sigh of relief, perhaps thinking, "I'm glad that's over!" But let's not be overly hasty in popping the champagne corks. Early this year, we predicted that inflation could recede below 3%, and rebound sharply, all in the same year.

Most observers are thrilled when they correctly forecast whether stocks, bonds, inflation, or GDP is likely to go up or down. We had the chutzpah to forecast that inflation would tumble *and* rebound. Because last year's 6.5% inflation happened almost entirely in the first half of the year, we told our investors that there would likely be an illusion of tumbling inflation in the first half of the year, perhaps even falling below 3% by midyear, then an illusion of soaring inflation in the second half of the year. Both the benign first half and the daunting second half are illusions, because they are based entirely on the months that we are replacing from 2022.

We cautioned our investors to not join the masses in celebrating, when inflation tumbled in the first half of the year. We predicted that there would be gleeful reports - whether investors, pundits, politicians, economists or reporters - that inflation is contained. That's exactly what we're seeing. We also cautioned our investors to recognize that a rebound in inflation during the second half of 2023 is likely, and is no basis for panic. Finally, we suggested that, if inflation rebounds in line with our expectations, we should expect countless observers to be surprised and deeply concerned. This remains a high-odds outcome.

We find it stunning that so few economists and investors look back at the months that we are replacing. Many companies invest substantial resources trying to gauge what the future months' inflation reports will look like, and then pay little or no attention to the months that they will replace. We never know with any precision what the new monthly inflation will be, and yet we have an exact fix on the month that it will replace.

Break out the Champagne??

Inflation is very simple, nothing more than a supply/demand imbalance. Worldwide, we paired a stimulus-induced surge in demand for goods and services (from helicopter drops of cash into consumers' bank accounts, and a mood to spend like there's no tomorrow!) with a lockdown-induced crash in supply of goods and services (from supply-chain disruptions, just-in-time production protocols, and millions of people either required or choosing not to work). As the causes of the supply-demand mismatch dissipate, so does the inflation.



AUTHORS



Rob Arnott*
Partner, Chairman



Omid Shakernia, PhD
Partner, Head of Research

*Corresponding author

Key Points

- Even though inflation fell below 3% in the first half of 2023, let's not celebrate too early as there is a possibility of inflation rebounding later in 2023.
- Inflation is not always transitory, it's just one of a wide range of outcomes (and historically has not been the norm).
- Investors are cautioned not to be overly optimistic about inflation and to be prepared for the possibility of higher inflation in the future.

The “spaghetti graph” on the next page gives us reason to applaud the rapid slaying of the inflation demons of 2021 to 2023. Early this year, we published a paper examining the trajectory of inflation in fourteen developed economies around the world over the last half-century. We expanded on that paper in a more thorough article which appeared soon thereafter in the [*Journal of Portfolio Management*](#). This graph is drawn (and updated) from that research. What does it show us?

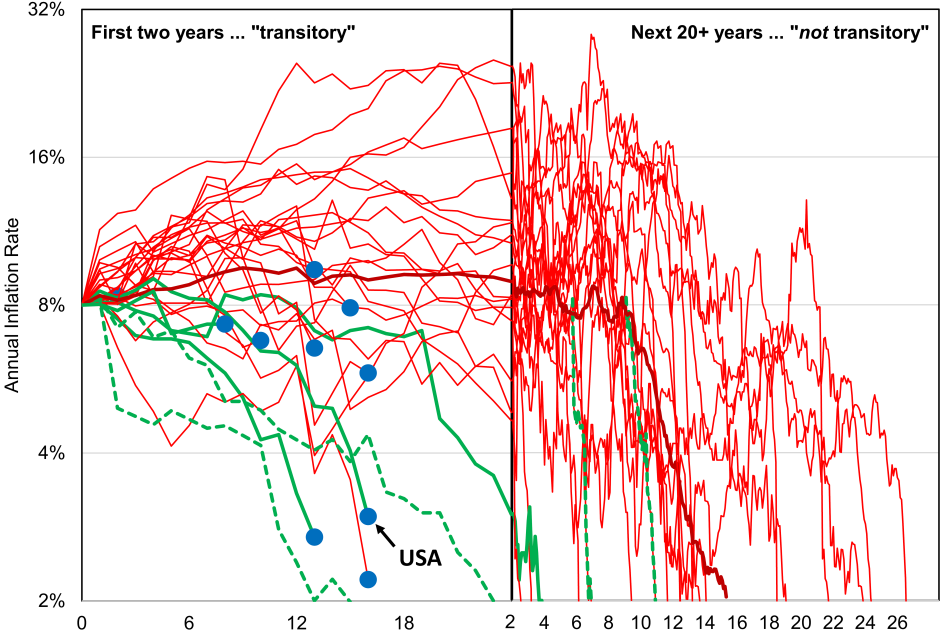
- Inflation has crossed the 8% threshold 31 times in the 14 countries that we studied. After first exceeding 8%, it can dissipate quickly: it took only 15 months for New Zealand to see its early-1990 inflation of 8% to retreat to the 2% target that seems to be today’s central bankers’ target (ironically first proposed by the New Zealand central bank in the late 2000s). Or it can dissipate slowly: inflation crossed 8% in Spain in 1970 and did not fall below 2% until 1997, a full generation later.
- If we define “transitory inflation” based on reverting to 2% or less within two years, the current round of global inflation may produce three candidates, Canada, Spain, and the US. History, however, is less encouraging. If we look closer, the two past episodes of transitory inflation (New Zealand, 1990-91, and Japan, 1980-82) were nothing of the sort! These were both the tail end of multiple peaks, in which only the last surge beyond 8% inflation dissipated fast (finally). You can see the dashed green lines replicated on the right side of the graph. Here we can see that the 1980-82 inflation in Japan actually started in 1971. It only counts as a separate episode because it fell below 4% in the interim. Likewise, the New Zealand inflation of 1991-92 actually began in 1984. So, these inflationary bursts were part of a much longer-term inflation lasting 11 years and seven years, respectively.
- In nine of our 14 countries, inflation exceeded 8% in the aftermath of Covid lockdowns. In all nine of these countries, inflation is already well below its post-Covid peak. In the US and Spain, it’s already below 3% and tumbling fast.

In other words, while rapid dissipation of inflation was rare in the past, this time is different. So sayeth the narrative!

History suggests that when inflation crosses the 8% threshold, it takes years, not months, before it falls back below 2%.

All Episodes (N=31) that Exceeded 8% Inflation

Green lines are "cresting inflation," which never reach 10%. (N=3, plus 3 pending)
 Red lines are "accelerating inflation," which rises to 10% and often far more. (N=25)
 Solid bold red line is the average outcome for unique, resolved episodes.
 Bold blue dots denote inflation that still persists to this day. (N=9)



Source: Research Affiliates, LLC, based on data from Bloomberg.
 Any use of the above content is subject to all important legal disclosures, disclaimers, and terms of use found at www.researchaffiliates.com, which are fully incorporated by reference as if set out herein at length.

Hold the Applause

Some misconstrued our inflation articles as suggesting that transitory inflation (inflation that dissipates within a year or two) won't happen. More accurately, our work suggested that transitory inflation is entirely possible, but resides at benign end of a breathtakingly wide range of outcomes. Our counsel was that readers should not dismiss the possibility of benign or transitory inflation. Nor should they anchor on that as their central expectation.

The graph below shows the trajectory of rolling 12-month CPI inflation (seasonally unadjusted) in recent years and through calendar 2023.

- The solid dark blue line shows the actual result through year-end 2022.
- The dashed orange line shows our projection this past January, showing what would happen if every single month of 2023 were to deliver 46 basis points of monthly inflation (matching the average CPI inflation of the previous three years), with zero variability for the full year. The result is not a straight line, as the casual observer might expect. Instead, it is a pronounced "V", as a consequence of the fact that almost all of the 2022 inflation occurred in the first half of the year.

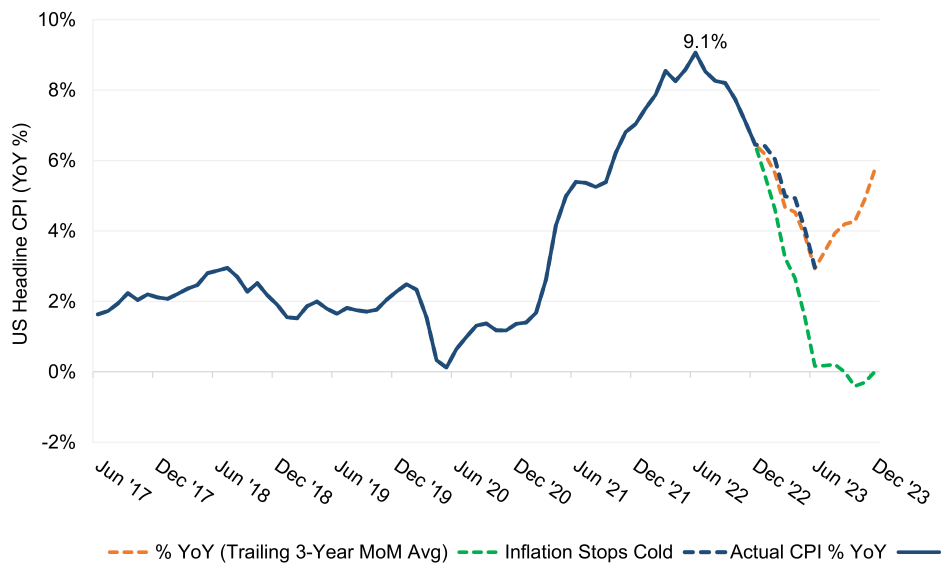
- The dashed green line shows our projection of what would happen if inflation were zero every single month of 2023. Again, we don't get a straight line. We get an "L". During the first half of the year, we are replacing monthly inflation of 1% with zero. During the second half of the year, we are replacing monthly inflation of near-zero with zero.
- The dashed blue line, like the solid blue line, also shows the actual inflation results, now extended through mid-year 2023. In other words, the dashed orange line, our forecast at the beginning of the year, almost exactly matched the actual outcome, the dashed blue line.

I harbor absolutely no illusions that this astonishingly tight fit is in any way normal. It was a remarkable stroke of luck that the monthly inflation reports were so steady from month-to-month, and so consistently matched the prior three-year average. The Cleveland Fed's "Inflation Nowcast" currently projects July inflation at a manageable 35 basis points.


Because that figure will replace zero inflation from last July, this would actually take inflation higher, very nearly in line with the orange dashed line.

The projected range of CPI outcomes remains elevated.

Potential Path for Headline CPI YoY (%)



Source: PIMCO and Research Affiliates, based on data from the U.S. Bureau of Labor Statistics, retrieved from FRED, Federal Reserve Bank of St. Louis.
 Any use of the above content is subject to all important legal disclosures, disclaimers, and terms of use found at www.researchaffiliates.com, which are fully incorporated by reference as if set out herein at length.



We are not as pessimistic for the second half of the year as the outlook implied by the orange dashed line. The orange line finishes the year at 5.7%, which is at the very high end of our own expected year-end range. Suppose, for example, that we see an average of 20-40 basis points of inflation each month through year-end. Then we should see the year-over-year inflation rise to somewhere between 4% and 5½% by year-end. That's enough to be alarming to most observers, who are typically not paying attention to the low rates of inflation that we are replacing late 2022.

We find it a bit amusing that, if inflation finishes the year at half its peak levels of mid-2022, this will be an adverse shock to many (indeed, likely most) investors. If we finish the year at 4½% inflation, we will be pleased by this usually benign denouement following a dangerous inflationary surge, but most of the investment community, media, and political elite will likely be alarmed (fear sells!).

What Does the Future Have in Store?

The first graph in this paper shows that 8% inflation is rarely benign or transitory. It takes serious policy errors—in the case of 2021-23 inflation, bipartisan errors—to trigger inflation of this magnitude. Those policy errors are unlikely to be reversed until our central bankers and political leaders have lost much credibility, and the populace no longer accepts the “bad luck” that the policy elite typically wants to blame.

The table on the next page tells the story. If we choose to view the 8% threshold as our key measure for serious inflation, we can see that there are 21 “resolved” episodes, meaning that the inflation receded below the ubiquitous 2% inflation target. Of these, three episodes were “cresting,” meaning that they never hit 10% inflation. Three more cresting episodes are still happening now and remain elevated; the US is one of these. There are three more “resolved” examples, in which inflation eventually returned to 2% or lower. Two of these involved “multiple peaks,” meaning they receded below 4% and rebounded above 8% before they finally settled down below 2%.

More typically, 8% inflation moves to higher levels, which we call “accelerating inflation.” Of the 21 resolved episodes of 8% or higher inflation, 18 went on to higher levels of 10% or more, four with multiple peaks (receding below 4% before rebounding above 8%). In the current inflationary surge, six of our fourteen countries went on to inflation levels above 10%, and have yet to settle down.

“Through year-end 2023, we would suggest that a rebound to 4% or more is more likely than a continuing near-term drop to 2% or less.”

The more interesting information on this table is the median time span for getting inflation under control. When we cross 8% inflation, the median time to bring inflation to heel depends upon circumstances. If inflation crests, and does not proceed to 10% or more, the median outcome is that inflation remains elevated for 4.1 years before it is brought below 2%. If, on the other hand, inflation accelerates to the next level (10%) or higher, the median span required to contain inflation is 15.3 years.

It’s very important to note that these are historical patterns. They are not a forecast. But they are a cautionary tale. If inflation is reined in, within 4 years or less, investors may be disappointed by the wait. But we would count that as a success, at the benign end of our very wide range.

Historically, when inflation crests above 8%, the median outcome for dropping back below 2% is 4.1 years.

Number of Inflation Episodes Above Various Thresholds & Median Span (in Years) Before Inflation Recedes Below 2%

	Cresting Inflation			Accelerating Inflation			Total
	Still in Progress	Resolved	Multiple Peaks	Multiple Peaks	Resolved	Still in Progress	
Once Inflation Exceeds:							
4% Thresholds	2	24	4	3	20	13	66
Median Span			1.5		14.4		
6% Thresholds	3	6	1	3	15	10	38
Median Span			1.6		14.2		
8% Thresholds	3	1	2	4	14	7	31
Median Span			4.1		15.3		
10% Thresholds	3	3		4	11	4	25
Median Span			7.7		14.9		
12% Thresholds	2	1		6	11	3	23
Median Span			11.0		14.5		
14% Thresholds	1	5	1		7		14
Median Span			13.7		11.8		
16% Thresholds			1		7		8
Median Span			11.8		12.7		
18% Thresholds		2	1		5		8
Median Span			7.3		15.1		
20% Thresholds		1	1		4		6
Median Span			7.3		18.8		

Source: Research Affiliates, LLC, based on data from Bloomberg.

Any use of the above content is subject to all important legal disclosures, disclaimers, and terms of use found at www.researchaffiliates.com, which are fully incorporated by reference as if set out herein at length.

Conclusion

We do not reject the possibility that inflation may be benign in the not-too-distant future, with a rapid return to “normal” 2% inflation. As we’ve said repeatedly, this happy outcome is entirely possible. But it’s also possible that we’ll see a rebound in inflation. We strongly caution against viewing this benign outcome as our central expectation. Through year-end 2023, we would suggest that a rebound to 4% or more is more likely than a continuing near-term drop to 2% or less. We strongly doubt that inflation will recede below 2% in the coming year. Beyond that, anything could happen.

Our outlook is optimistic, when measured relative to historical norms, but we readily acknowledge that it’s a pessimistic outlook relative to the current rosy consensus. We posit that too many observers have not studied the past, and that they and their outlook are ill-informed.

Regardless, this too shall pass. We just think it’ll take longer than the consensus expectations.

References

Arnott, Rob, and Omid Shakernia. 2023. "How Transitory is Inflation?" *Journal of Portfolio Management*, vol. 49, no. 5 (April): 21-33.

The material contained in this document is for informational purposes only. It is not intended as an offer or a solicitation for the purchase and/or sale of any security, derivative, commodity, or financial instrument, nor is it advice or a recommendation to enter into any transaction. Research results relate only to a hypothetical model of past performance (i.e., a simulation) and not to actual results or historical data of any asset management product. Hypothetical investor accounts depicted are not representative of actual client accounts. No allowance has been made for trading costs or management fees, which would reduce investment performance. Actual investment results will differ. Simulated data may have under- or over- compensated for the impact, if any, of certain market factors. Simulated returns may not reflect the impact that material economic and market factors might have had on the advisor's decision-making if the advisor were actually managing clients' money. Simulated data is subject to the fact that it is designed with the benefit of hindsight. Simulated returns carry the risk that actual performance is not as depicted due to inaccurate predictive modeling. Simulated returns cannot predict how an investment strategy will perform in the future. Simulated returns should not be considered indicative of the skill of the advisor. Investors may experience loss of all or some of their investment. Index returns represent back tested performance based on rules used in the creation of the index, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are not managed investment products and cannot be invested in directly. This material is based on information that is considered to be reliable, but Research Affiliates, LLC ("RA") and its related entities (collectively "Research Affiliates") make this information available on an "as is" basis without a duty to update, make warranties, express or implied, regarding the accuracy of the information contained herein. Research Affiliates is not responsible for any errors or omissions or for results obtained from the use of this information.

Nothing contained in this material is intended to constitute legal, tax, securities, financial or investment advice, nor an opinion regarding the appropriateness of any investment. The information contained in this material should not be acted upon without obtaining advice from a registered professional. RA is an investment adviser registered under the Investment Advisers Act of 1940 with the U.S. Securities and Exchange Commission (SEC). Our registration as an investment adviser does not imply a certain level of skill or training. RA is not a broker-dealer and does not effect transactions in securities.

Investors should be aware of the risks associated with data sources and quantitative processes used to create the content contained herein or the investment management process. Errors may exist in data acquired from third party vendors, the construction or coding of indices or model portfolios, and the construction of the spreadsheets, results or information provided. Research Affiliates takes reasonable steps to eliminate or mitigate errors and to identify data and process errors, so as to minimize the potential impact of such errors; however, Research Affiliates cannot guarantee that such errors will not occur. Use of this material is conditioned upon, and evidence of, the user's full release of Research Affiliates from any liability or responsibility for any damages that may result from any errors herein.

The trademarks Fundamental Index™, RAFI™, Research Affiliates Equity™, RAE™, and the Research Affiliates™ trademark and corporate name and all related logos are the exclusive intellectual property of RA and in some cases are registered trademarks in the U.S. and other countries. Various features of the Fundamental Index methodology, including an accounting data-based non-capitalization data processing system and method for creating and weighting an index of securities, are protected by various patents of RA. (See applicable US Patents, Patent Publications and protected trademarks located at <https://www.researchaffiliates.com/legal/disclosures#patent-trademarks-and-copyrights>, which are fully incorporated herein.) Any use of these trademarks, logos, or patented methodologies without the prior written permission of RA is expressly prohibited. RA reserves the right to take any and all necessary action to preserve all of its rights, title, and interest in and to these marks and patents.

The views and opinions expressed are those of the author and not necessarily those of RA. The opinions are subject to change without notice.

©2024 Research Affiliates, LLC. All rights reserved. Duplication or dissemination prohibited without prior written permission.

AMERICAS

Research Affiliates, LLC

660 Newport Center Drive, Suite 300
Newport Beach, California 92660
USA

+1.949.325.8700
info@researchaffiliates.com

EUROPE

Research Affiliates Global Advisors (Europe) Ltd

78-79 Pall Mall
London SW1Y 5ES
United Kingdom

+44 (0) 20 3929 9882
uk@researchaffiliates.com