

**Special Commentary**

**Sarah House, Senior Economist**  
[sarah.house@wellsfargo.com](mailto:sarah.house@wellsfargo.com) • (704) 410-3282  
**Shannon Seery, Economic Analyst**  
[shannon.seery@wellsfargo.com](mailto:shannon.seery@wellsfargo.com) • (704) 410-1681

**Is Inflation Really as Low as the Fed Fears?****Executive Summary**

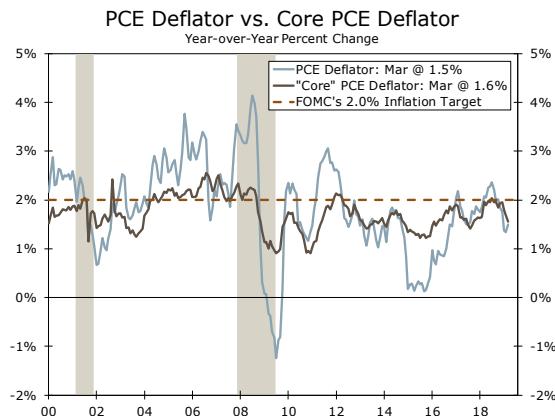
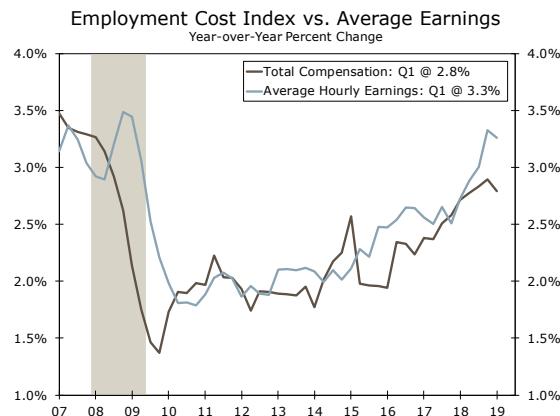
Fed officials have been concerned about inflation's ongoing shortfall from the FOMC's 2% target. Core PCE inflation has averaged only 1.6% over the current expansion, and has weakened more recently. The undershoot and handwrapping over the miss come as a surprise to many of the clients to whom we speak, who feel their own costs have been rising more rapidly.

The perception that inflation is higher than official figures comes as prices for many items are indeed rising faster than 2% and have picked up more recently. Of course other items offset these gains, but often garner less attention. Moreover, a number of statistical practices, like quality adjustment, depress inflation readings relative to transaction prices, although other practices may overstate inflation. These methods have been little changed in recent years, however, meaning that they are unlikely to bias inflation today relative to previous periods.

While inflation has picked up for many items over the past couple of years, it still remains low compared to the prior expansion. The upshot is that real household income and spending continue to benefit from low inflation, while monetary policy has no glaring need to become restrictive.

**Wide-Ranging Perspectives**

As far as the Fed is concerned, inflation is largely absent. In March, the core PCE deflator slipped to 1.6%, year-over-year. While recent weakness may have been exaggerated by a number of temporary factors, there is no getting around the fact that inflation has struggled to reach the FOMC's target for the vast majority of the expansion (Figure 1). In the 10 years since the recession, both headline and core PCE inflation have increased at an average annualized rate of 1.6% compared to the FOMC's 2.0% goal. The prolonged shortfall has generated a rethink of the underlying drivers of inflation and the Fed's approach to its price-stability mandate.<sup>1</sup> More immediately, it has spurred debate about the FOMC cutting the fed funds rate this year to support inflation.

**Figure 1****Figure 2**

Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

<sup>1</sup> See "[Two Thine Own Inflation Target Be True?](#)" (Mar. 4, 2019).

***There is a common perception that inflation is higher than official figures.***

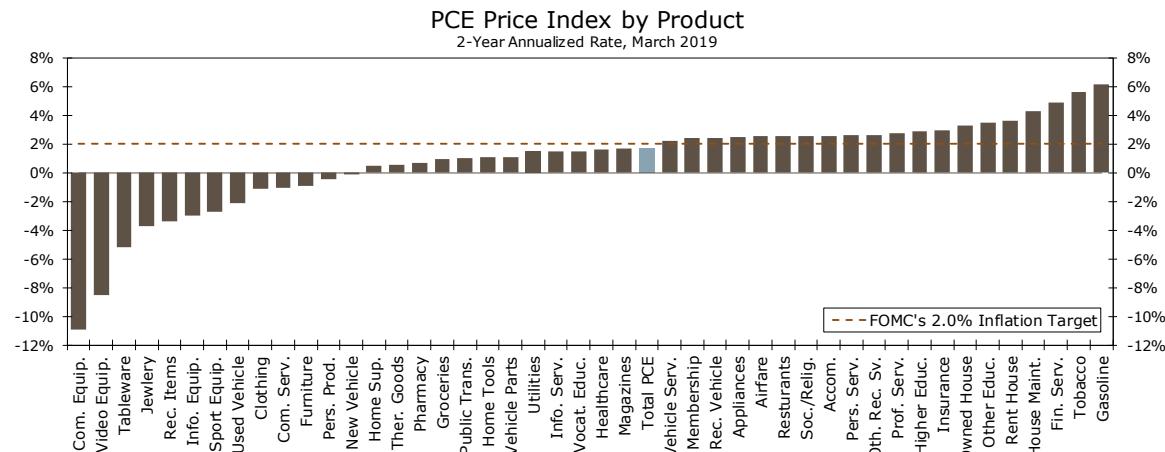


**The Fed's handwringing about low inflation may seem odd to businesses and households.**

The handwringing about low inflation may seem odd to businesses and households at the moment. Businesses have seen their own costs pick up over the past few years, especially for labor (Figure 2). At the same time, “low” inflation in the official sense may not jibe with consumers’ views when seeing prices pick up for everyday items, or the sticker-shock from less frequent purchases that have been outstripping broader inflation for years, like college education or a hospital stay.

The reality is that the low rate of headline or core inflation masks wide variance in price changes. Declining prices for some goods and services are offsetting price hikes elsewhere. Figure 3 illustrates the spectrum of inflation across goods and services.<sup>2</sup> We show the two-year annualized inflation rate in order to filter through some of the short-term noise that inevitably comes from surveys. While overall prices rose at a 1.8% pace over this period, that does not capture everyone’s experience or perception of inflation.

**Figure 3**



Source: U.S. Department of Commerce and Wells Fargo Securities

**Are We Really Struggling to Reach 2%?**

The public’s perception of inflation has more often than not been higher than measured inflation this expansion, as indicated by the surveys of inflation expectations (Figure 4). More recently, for a number of frequent purchases, like gasoline and eating out, prices have risen faster than overall inflation. Major budget line items, like housing, have also seen prices rise more markedly than aggregate inflation. Conversely, less frequent purchases like televisions, phones, computers and cars have seen prices decline. The infrequency of such purchases may influence consumers’ perception of inflation, where many “feel” inflation is higher than official estimates indicate.

The scope and methodology used to measure prices may also lead to official inflation coming in lower than the rate at which households feel their cost of living is changing. Take healthcare costs for example. In the PCE deflator, healthcare is based on the prices paid by all payers, including the government and private insurers. Healthcare inflation, which accounts for almost one-fifth of the PCE deflator, therefore is subject to the government-determined reimbursement rates. Consumers’ out-of-pocket medical costs, better reflected by the CPI, have continued to increase faster than what has been indicated in the Fed’s benchmark (Figure 5).

<sup>2</sup> We exclude the inflation rates for a number of small categories, which together account for only 1.4% of total personal consumption expenditures.

Figure 4

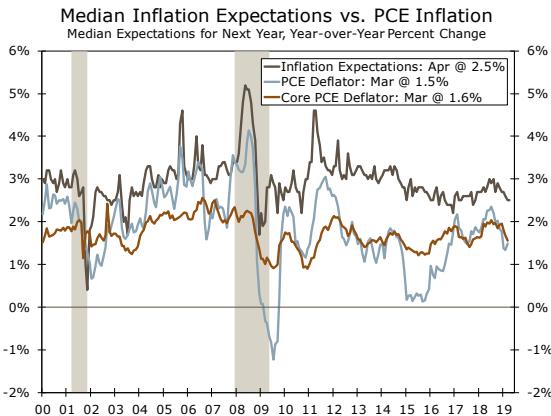
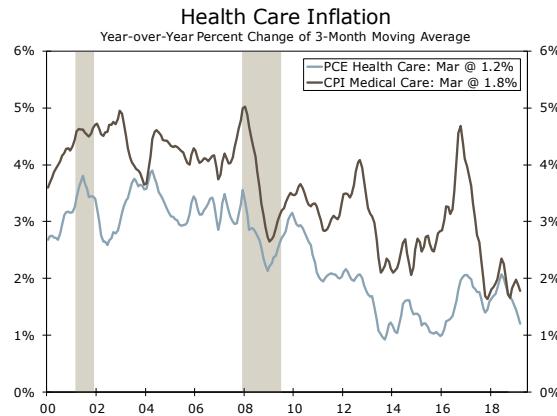


Figure 5



Source: University of Michigan, U.S. Dept. of Commerce, U.S. Dept. of Labor and Wells Fargo Securities

Attempts to control for the changing quality of items is also likely to make it feel as though living expenses are rising faster than official inflation figures indicate. Inflation is meant to capture how the cost of the *same* good or service changes over time. If a good or service today does more or works better—like a smartphone versus a basic cell phone, or faster internet services—it is not exactly the same product. Statisticians therefore try to strip out the value of quality improvements, making changes in transaction prices diverge from the official rate. Some of the items to see the steepest declines in prices in recent years are subject to such quality adjustments, including smartphones (communication equipment), TVs (video equipment), computers (info processing equipment), clothing, and internet and phone services (communication services). Similarly, while the transaction prices for new vehicles have climbed to record highs, the PCE measure of new cars and light trucks has largely treaded water.

Further holding down official inflation, at least when using the Fed's preferred PCE measure, are substitution effects. For example, if pork prices rise rapidly, consumers may choose to eat more chicken, limiting the impact of the price increase on their overall cost of living. Nonetheless, the increase in pork prices still looks and feels like inflation to shoppers.

But there are ways in which official inflation indices may also overstate some consumers' inflation experiences as well. Take housing. Owned housing accounts for a sizeable weight in the PCE deflator (12%) and the CPI (24%). For most homeowners, however, mortgage payments are fixed. As a result, their costs are not changing with the equivalent rental value of the home, which is the way owner-occupied housing costs are captured in the PCE and CPI.

Consumers are also prone to shift purchases to establishments offering lower prices faster than government surveyors. The rise of e-commerce—and the lower overhead and prices it entails—is the latest example of such “outlet bias”. Research shows online prices are on average 6% lower than “offline” prices, although prices tend to *change* closely in line with offline prices, limiting the impact to overall inflation.<sup>3</sup> Many internet-based services, like search and email, are already free to consumers and therefore not included in official inflation measures.

## At the End of the Day, Still Low

Measurement issues like quality adjustment and outlet bias have long been a challenge for capturing inflation. At the same time, households' undue focus on prices that are rising quickly versus items that are little changed, is not new. Regardless of the range of inflation among items or the overall fit of official indices and households' perceptions of inflation, price growth remains modest compared to the prior expansion. Over the past two years, with arguably little if any slack left, inflation has run nearly a point below its annual pace over the entirety of the 2002-2007

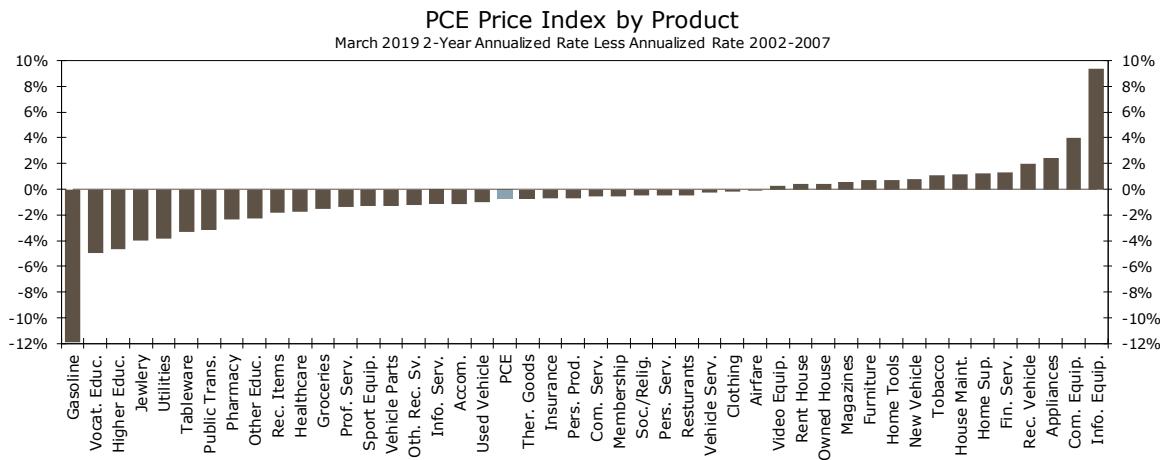
**Transaction prices may rise faster than official price measures due to quality adjustments.**

**There are also ways in which official inflation indices overstate inflation.**

<sup>3</sup> See “[The Weight of the World \(Wide Web\) on Inflation](#)” (Feb. 13 2018), for a more detailed discussion.

expansion. Most sub-categories have experienced lower inflation compared to the last expansion (Figure 6). Among those where “inflation” has been higher, about half have merely registered less deflation (i.e., prices for these items have been declining, just not as quickly as previously).

**Figure 6**



***Even as many businesses and households feel prices are rising faster than official figures, inflation remains low.***

**Source: U.S. Department of Commerce and Wells Fargo Securities**

The upshot is that even as many businesses and households feel the general price level is rising faster than official figures indicate, inflation remains rather low. The subdued trend is not completely lost on consumers, as overall inflation expectations remain on the low side of their historic range. The modest pace of inflation has kept *real* income growth rising and supported consumer spending. And while the Fed’s concern about inflation running too-low may seem misplaced to households, inflation’s continued undershoot has allowed the FOMC to scale back its plans to tighten policy and helped to elongate the expansion.

# Wells Fargo Securities Economics Group

Jay H. Bryson, Ph.D.	Global Economist	(704) 410-3274	jay.bryson@wellsfargo.com
Mark Vitner	Senior Economist	(704) 410-3277	mark.vitner@wellsfargo.com
Sam Bullard	Senior Economist	(704) 410-3280	sam.bullard@wellsfargo.com
Nick Bennenbroek	Macro Strategist	(212) 214-5636	nicholas.bennenbroek@wellsfargo.com
Tim Quinlan	Senior Economist	(704) 410-3283	tim.quinlan@wellsfargo.com
Azhar Iqbal	Econometrician	(212) 214-2029	azhar.iqbal@wellsfargo.com
Sarah House	Senior Economist	(704) 410-3282	sarah.house@wellsfargo.com
Charlie Dougherty	Economist	(704) 410-6542	charles.dougherty@wellsfargo.com
Erik Nelson	Macro Strategist	(212) 214-5652	erik.f.nelson@wellsfargo.com
Michael Pugliese	Economist	(212) 214-5058	michael.d.pugliese@wellsfargo.com
Brendan McKenna	Macro Strategist	(212) 214-5637	brendan.mckenna@wellsfargo.com
Shannon Seery	Economic Analyst	(704) 410-1681	shannon.seery@wellsfargo.com
Matthew Honnold	Economic Analyst	(704) 410-3059	matthew.honnold@wellsfargo.com
Jen Licis	Economic Analyst	(704) 410-1309	jennifer.licis@wellsfargo.com
Dawne Howes	Administrative Assistant	(704) 410-3272	dawne.howes@wellsfargo.com

Wells Fargo Securities Economics Group publications are produced by Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the Securities Investor Protection Corp. Wells Fargo Securities, LLC, distributes these publications directly and through subsidiaries including, but not limited to, Wells Fargo & Company, Wells Fargo Bank N.A., Wells Fargo Clearing Services, LLC, Wells Fargo Securities International Limited, Wells Fargo Securities Canada, Ltd., Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC is registered with the Commodities Futures Trading Commission as a futures commission merchant and is a member in good standing of the National Futures Association. Wells Fargo Bank, N.A. is registered with the Commodities Futures Trading Commission as a swap dealer and is a member in good standing of the National Futures Association. Wells Fargo Securities, LLC and Wells Fargo Bank, N.A. are generally engaged in the trading of futures and derivative products, any of which may be discussed within this publication. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm which includes, but is not limited to investment banking revenue. The information and opinions herein are for general information use only. Wells Fargo Securities, LLC does not guarantee their accuracy or completeness, nor does Wells Fargo Securities, LLC assume any liability for any loss that may result from the reliance by any person upon any such information or opinions. Such information and opinions are subject to change without notice, are for general information only and are not intended as an offer or solicitation with respect to the purchase or sales of any security or as personalized investment advice. Wells Fargo Securities, LLC is a separate legal entity and distinct from affiliated banks and is a wholly owned subsidiary of Wells Fargo & Company © 2019 Wells Fargo Securities, LLC.

## Important Information for Non-U.S. Recipients

For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. For the purposes of Section 21 of the UK Financial Services and Markets Act 2000 ("the Act"), the content of this report has been approved by WFSIL, an authorized person under the Act. WFSIL does not deal with retail clients as defined in the Directive 2014/65/EU ("MiFID2"). The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE