THE WEEKLY REPORT

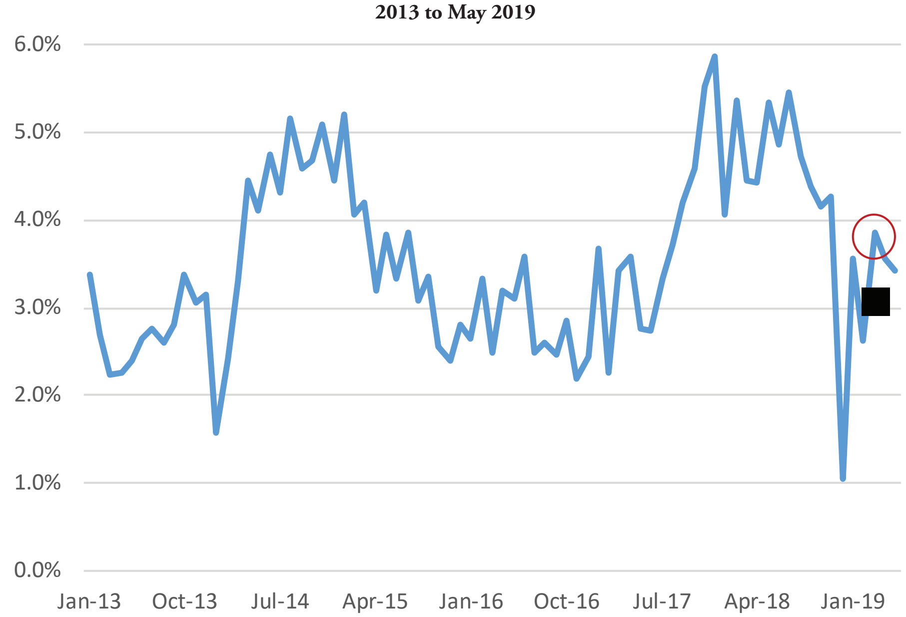
You couldn't tell from the bond market, but the week ended with good economic news from US retail sales. May was all right, but the once ugly results for April saw large upward revisions. Second quarter GDP revisions rose .5 percentage points to better than 2% based on consumption growth that now could be as high as 3%. That's a large jump from anemic final sales in the first quarter that couldn't get to 1.5%.

Chris Low's analysis: *Most major categories of sales – including the "control" group that mimics GDP components – are growing at near double-digit 3-mo annualized rates. The quarter as a whole won't be quite that strong, because the 3-mo change now includes the March rebound from the February slump. Still, solid quarterly sales growth is better than weak quarterly sales growth, especially when it looked like the weakness would be in back-to-back quarters.*

Needless to say, this is important. The collapse of consumption in Q1 and failure of consumption to recover in April was one of the most compelling, hard data reasons justifying an insurance rate cut.

The chart tracks the annual growth in nominal retail sales. In real terms, the growth isn't that remarkable, given the last large boost was the middle of last summer. The black square on the chart, though, shows were the trend would have been without the revision. Sales would be hovering around the mushy levels seen in 2016 when the Fed policy had to do a quick about face.

"Control Group" Retail Sales
Nominal Annual Growth, Monthly
2013 to May 2019



Source: US Census Bureau, FTN Financial

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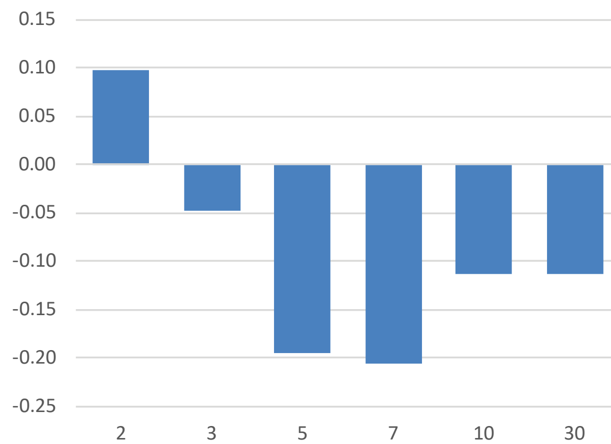
From Risk Rebalance in May to Reassessment of Fundamentals in June

Interest rates are transitioning to a gloomier global outlook each week, moving much faster than other financial markets when it comes to dire warnings. Economists are adjusting their forecasts to the direction of rates, adding confirmation to the theme of a now fragile economic cycle. Not even a buoyant US retail sales report could transcend weaker industrial production figures from abroad.

Based on the suddenly brighter view of Q2 consumption, traders should have taken 2-yr UST above 1.90% on the need for fewer rate cuts, but they barely approached 1.88% before trading around 1.85% on Friday. Traders' response to retail sales improvement (cover) illustrates how far rate thinking has traveled in just three weeks. Essentially, it has moved past Fed policy – a bold step – to worry about a global recovery as political types chisel at economic architecture every week.

If bond investors were convinced i) the Fed is going to cut rates more than 50bp; and ii) the cuts would keep the economy on an even keel, then the profile of changes in real interest rates across the curve would look <u>nothing</u> like this:

May 21 to June 14 Real Rate Curve Shift



Source: FTN Financial

The short end is the best barometer of market thinking about Fed rate cuts in 2019. Two-year real rates plunged after the FOMC's March meeting to complete the cycle from the highs in December. Although volatile, they have continued a steady rise even as forecasts call for more for rate cuts. Lower forecasts are only partly on the idea the Fed can lower rates due to a downshift in inflation. Another component represents the deteriorating economic numbers in the EU and China.

The decline in 5-yr real yields began in reaction to illiquidity and highly correlated risk rebalancing in global markets (1). It hit current lows after non-farm payrolls (2) but has not recovered as might be expected after the initial shock of zero net job growth last month (after revisions). ***Intermediate yields are priced for an extended slump but not a global recession.***

5-Year Real Interest Rates + Term Premium
March 18, 2018 to Present
Daily

Source: FTN Financial

<u>Bottom Line</u>: Lower and flatter real rates – even as borrowing demand improves – demonstrate investors have decided it remains better to own a debt obligation than to put their faith in a turnaround that would produce better returns in stocks and commodities over the next 12 months. As a corollary, odds are falling quickly that government/central bank stimulus can reverse an ebbing tide.

Thinner margin for error

Despite economic disappointments this month, the Fed can point to hard data trends that allow it more time to extend the pause. With only several exceptions, there is still growth. Investors, however, are comparing their previous optimism with the Fed's current optimism – projecting their previous mistakes onto the Fed's still rosy forecasts.

Economic surprise index readings recovered in May after Street economists implemented across-the-board downgrades for global growth. The cuts, though, did not create enough cushion for actual results so far in June.

Economic Data Surprise Index
G-10 Countries
November 2018 to Present

Source: Citigroup

Economists at the International Monetary Fund expressed an important theme in its discussions about the European outlook this week. They didn't see an economic slide this year, but the outlook was still gloomy. Growth there is vulnerable to an external shock, but even without one, the EU could see a "prolonged period of anemic growth and inflation," according to Managing Director Lagarde.

First, the failure of inflation to rise on improving growth aggravated a split between the outlook of central bankers and investors. Then, growing awareness global leaders are perfectly willing to lead their countries to cliff edges around the world changed risk calculations faster than central bankers can respond. The economic story of Brexit for its first two years was its inability to disrupt global conditions. Forecasts that it would be calamitous proved quite incorrect.

Now, Brexit and the EU's harsh bargaining position (rooted in 10-yr-old thinking) is climbing the list of political positioning that puts business confidence, investment and growth all at serious risk.

Investors content with larger positions at lower rates

10-yr UST approached 2.18% briefly the morning of June 11. They moved for one hour above 2.10% on June 14. Thanks to June 7's payroll and wage report, though, traders bowed to large purchases and didn't short Treasuries except to hedge corporate purchases. The few periods of selling this week made only the smallest of dents in the positions added at the end May and early this month.

One calculation concept of cumulative buying – measured by incremental price changes times volume -- demonstrates the breadth of commitment behind 10-yr UST yields below 2.15%. The chart since the beginning of April shows the June 7 payroll move (2) came in addition to the previous two weeks of buying on a serious risk-off move in global financial markets (1).

10-Yr Futures Volume Tims Price Changes
30-Minute Intervals
April 1 to Present

Source: CBOT, FTN Financial

The view from this individual chart is confirmed by other important technical trends.

Bond "doom" definitely out front of stocks

Based on hard trading patterns of the last several years, it is odd both bonds and stocks are performing in tandem in the first half of June. Bottom line, equity managers express far more faith in the Fed's ability to keep the economy on course with rate cuts.

Viewed by the spread between 10-yr UST and the cash dividend yield on the S&P 500, the plunge from 50bp in April to less than 10bp suggests the Fed hasn't acknowledged any risks in the current environment. The decline is not as dramatic as the end of 2018, but it's still big and refusing to bounce.

10-Yr UST Yields less Dividend Yield on S&P 500
October 2017 to Present
Daily

Source: Standard & Poor's and FTN Financial

Conclusion

Low odds for a recession dominated thinking at the start of 2019. The odds looked even lower after Fed's abrupt turn from tightening to pause provided de facto monetary policy stimulus in January. ***Outside the US, growth that was supposedly on hold until China/US trade negotiations were completed now appears to be at risk of taking selected economies much closer to recession.*** In the case of China, that would be a growth recession… but even that could bring temporary deflation.

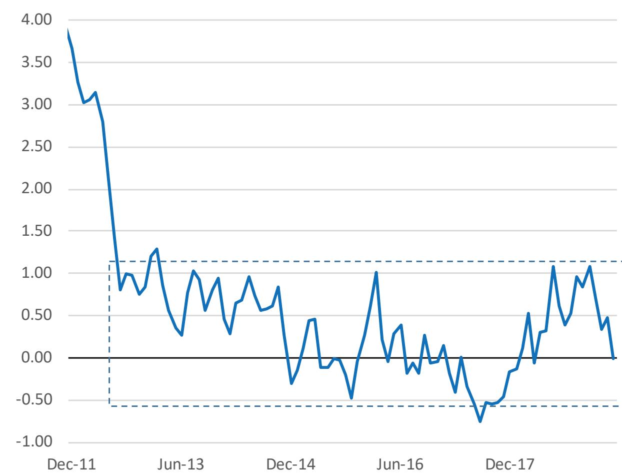
The FOMC baseline embedded in markets is one cut in July and one more before year-end. Last month, the market turned on how long rates could stay at 1.75%. This month, the latest strategy decision for bonds is whether 1.50% will be low enough. Of course, there is no conviction today rates have to go to 1.50%, but bonds are filtering news with a global lens rather than one trained on the US.

Energy Prices Crest, Core CPI Still Falls

CPI may be transitioning from "not rising" to falling. When energy prices ease back, that often raises the core as money freed by cheaper necessities drives up demand elsewhere. In the inflation slump of 2019, that spending transfer isn't having a visible impact.

The Federal Reserve Bank of Atlanta's sensitive measure for the core CPI – termed 'flexible' – is running at negative 3.55% annualized for the last three months. That's the largest negative trend since 2003….which probably makes it an anomaly and requires looking at the 12-month pace. Versus last year, May was merely negative rather than at 15-yr lows.

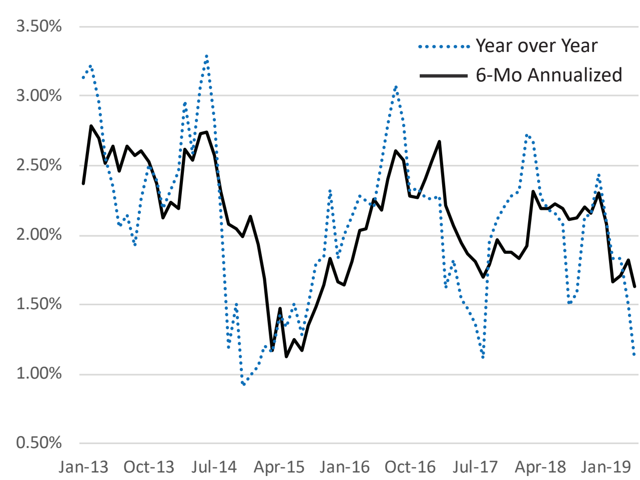
Flexible Components of Core CPI
12-Month % Change
2012 to May 2019
Monthly



Source: Federal Reserve Bank of Atlanta, FTN Financial

Excluding rent, the annual rate of services inflation is down to 1.6%, the lowest since late 2015. Reminder, ***this indicator is supposed to be an early-warning sign of wage pressure making its way into broader prices.*** Here we emphasize the 12-month change as the 6-month annualized rate compares with an inflation peak in November 2018.

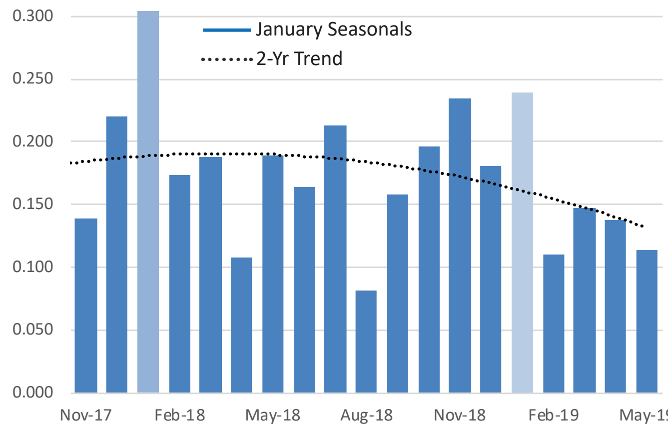
Changes in Service Costs, Ex-Rent
January 2013 to May 2019



Source: BLS, FTN Financial

The core CPI itself also supports the "falling" theme as it backtracked the small bumps the previous two months. ***The .113% gain in May is all the more noticeable given .110% in January and .082% in August last year both followed a series of rapid monthly increases.***

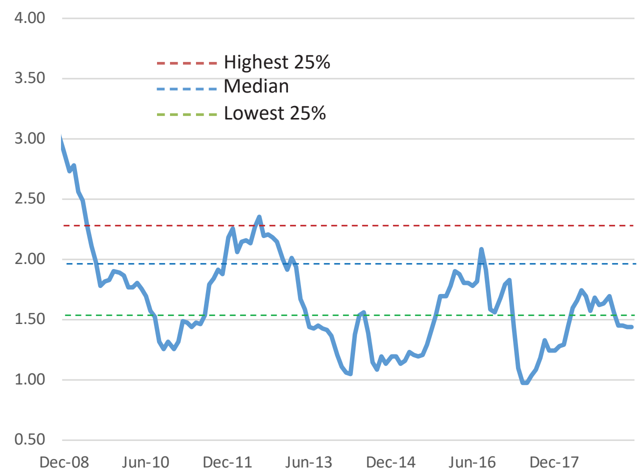
Monthly Change in Core CPI
Last 18 Months



Source: BLS

The "sticky" part of core inflation – call it the non-cyclical component – is still following the lower trend established three years ago. The chart excludes housing.

Sticky Core Inflation, Ex-Housing
Year over Year
2009 to May 2019
Monthly



Source: Federal Reserve Bank of Atlanta, FTN Financial

From Chris Low's CPI note on June 12:

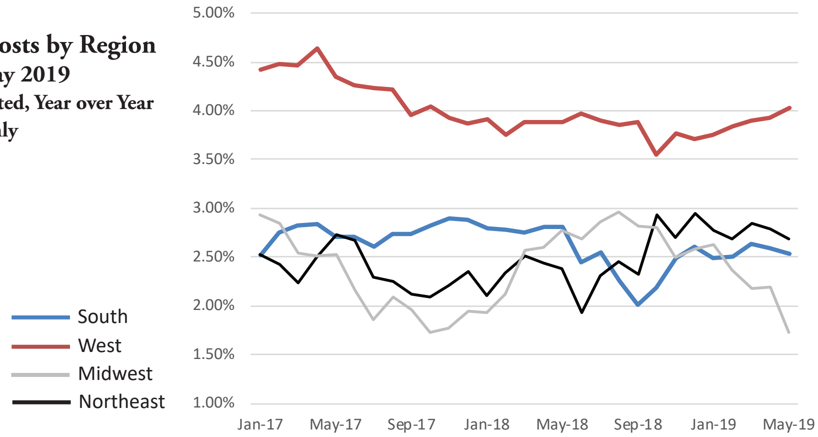
Bottom Line: The only cyclical price behaving in a cyclical way is rent. Except for that, there is an awful lot of nothing going on in the CPI. That's likely because almost every good or service can be imported or outsourced except for a place to live, and we are importing disinflation. Note that because the PCE deflator has a much smaller housing component than the CPI, it is running about 50bp lower at the moment.

Next week, the FOMC will discuss whether a rate cut is advisable. It's likely participants will conclude that cutting rates to boost inflation is not a good idea, because their models all insist inflation's shortfall is outside their control. By the same token, inflation is not holding them back from cutting rates, either. They can cut to address weak growth, safe in the knowledge they are not making a bad inflation situation worse. Because, after all, inflation is not just low, it's too low.

Housing inflation slows this year other than "West"

Through the last three years, the one constant has been housing's role in driving core inflation. That's still the case this quarter, but urban housing cost growth in three of four regions has been flat to lower since the middle of 2018. The one, big exception is the western region where housing costs have accelerated. CPI runs at 3.0% in large western cities as a result.

Urban Housing Costs by Region
2017 to May 2019
Non-Seasonally Adjusted, Year over Year Monthly



Source: Bureau of Labor Statistics, FTN Financial

The chart de-emphasizes the struggling Midwest where housing inflation continues to fall, now below 2.0%. The South is held back by the overall sluggish growth in that part of the country.

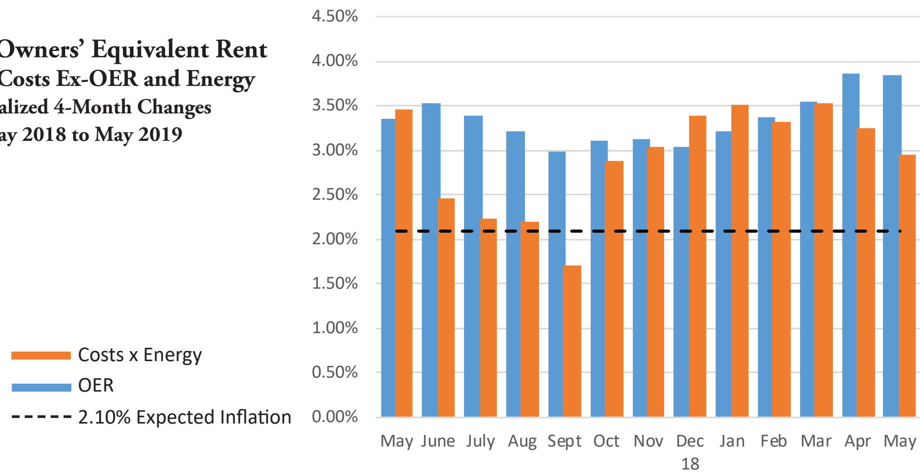
Several things to wonder about:

- Higher rates have done nothing to slow housing growth in the West, yet they appear to have contributed to a slowdown in the Midwest and Northeast. There has been nothing obvious in surveys that lending standards are tougher in the Midwest or South. If anything, large down payments and large monthly costs in the West would seem to keep housing costs contained there. Does monetary policy impact housing at all, or only selectively? A BIS paper (2017) says the US is an outlier versus the rest of the world. Here, short-term rate policy does <u>not</u> impact home prices, according to statistical screens.[1]
- Have regional single-family home markets returned for good after succumbing to the national, speculative frenzy that helped drive the housing crisis? The regional nature of housing was a long running argument why any busts would not spread.
- With housing about 25% of the core PCE, does the Fed segregate those costs from flexible ones when it considers policy given the regional influence and the questioned impact of monetary policy on that portion of inflation?

[1] https://www.bis.org/publ/work665.pdf

On an annualized 4-mo trend, owners' equivalent rent supports the idea inflation is not cooling off. Thankfully, operating costs (ex-energy) have started to ease.

Housing Owners' Equivalent Rent
Housing Costs Ex-OER and Energy
Annualized 4-Month Changes
May 2018 to May 2019

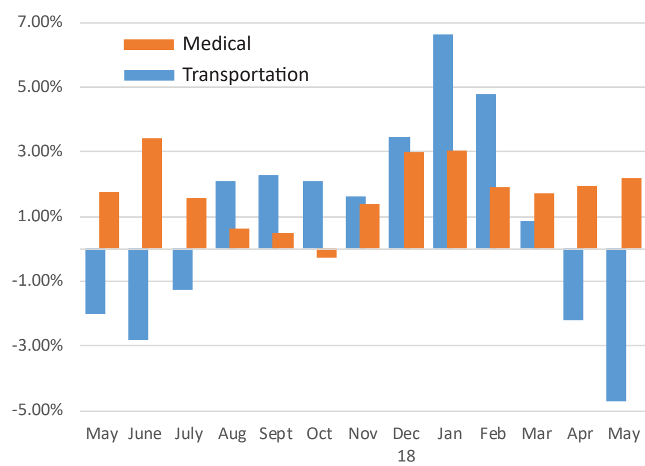


Source: BLS, FTN Financial

"Transitory" categories stay muted

Four volatile components comprise 31% of the CPI. Two are falling. The fastest of the four is medical costs, with an annualized 4-month trend of 2.2%. ***Investors need to remain on guard in case all four start rising at the same time. When or if that happens, many economists will contend the Fed was right to focus on transitory inflation categories that took the core lower. The odds will be high, though, that conclusion is incorrect and that these price categories just happen to all move in the same direction at the same time.*** Transportation and medical costs certainly did last fall when the Fed was in the middle of its 50bp rate bump.

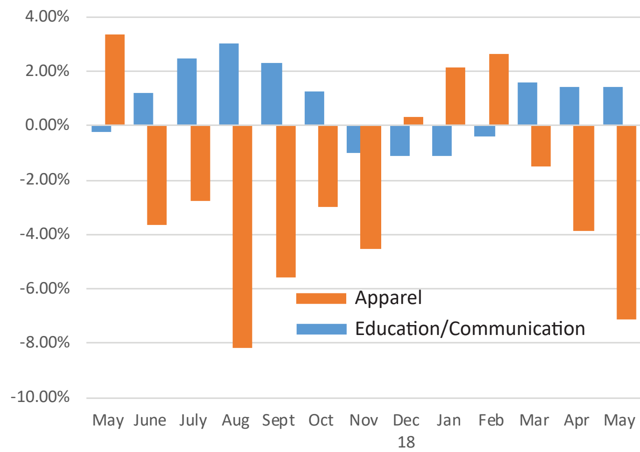
Transportation and Medical Costs
Annualized 4-Month Changes
May 2018 to May 2019



Source: BLS, FTN Financial

Apparel costs have been falling consistently, though, over the last 12 months. It's the smallest of the categories but does get noticed and labeled transitory based largely on the impact of the stronger dollar.

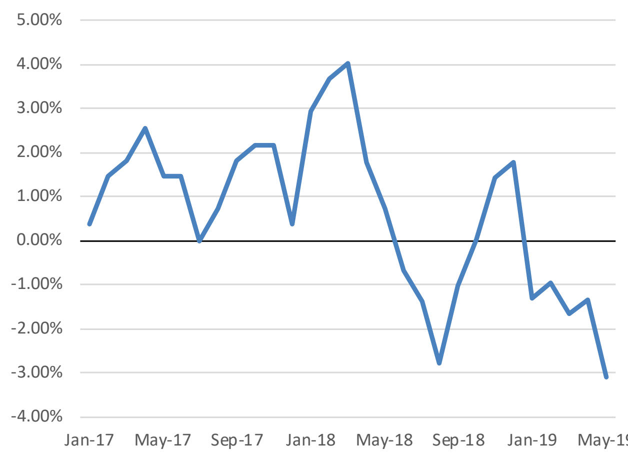
Communication and Apparel Costs
Annualized 4-Month Changes
May 2018 to May 2019



Source: BLS, FTN Financial

On the topic of the stronger dollar, it peaked in April but the residual impact of the climb is just now showing up in more places than apparel. Here's the chart of import prices, ex petroleum, looking at the annualized 3-month changes for the last two years.

Import Price Inflation - Ex-Petroleum
3-Mo Average of Annualized Monthly Changes
2017 to May 2019



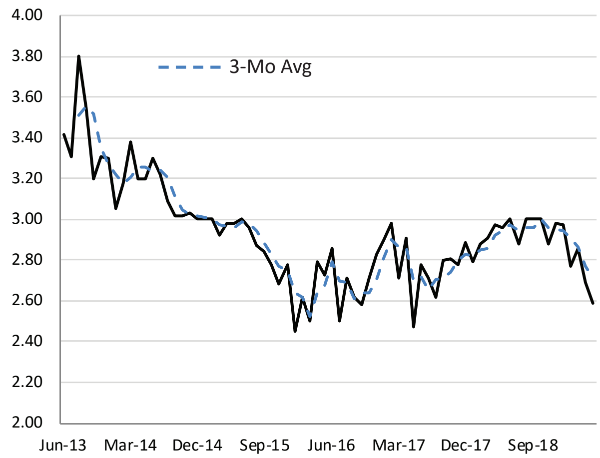
Source: Bureau of Labor Statistics, FTN Financial

Consumer inflation surveys drop sharply this spring

Typically, consumer sentiment surveys about inflation expectations lag both market and economists' price outlooks. That's especially the case at turning points. Not so this spring. Both these reports summarizing views about longer-term price behavior are moving outside their recent comfort zones.

First, the survey conducted by the Federal Reserve Bank of New York which asks consumers to look ahead three years. The May reading of 2.6% is back near the lows of 2016, down from a persistent 3.0% last year.

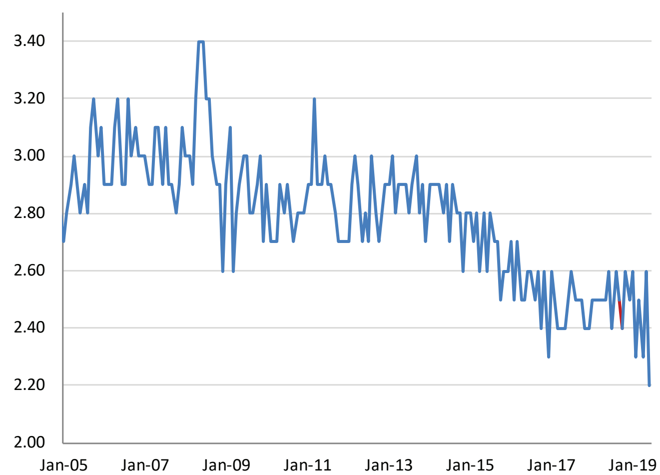
Inflation Rate Expectations, 3-Yrs Ahead
Median of Consumer Expectations
June 2013 to May 2019
Monthly



Source: Federal Reserve Bank of New York

Then, the more widely followed University of Michigan survey of expected price changes in years 5-10 or comparable to the Fed's 5x5 forward analysis of Treasury breakevens.

Expected Change in Prices in 5 to 10 Years
2005 to May 2019
Monthly
Non-Seasonally Adjusted



Source: University of Michigan Consumer Sentiment Survey

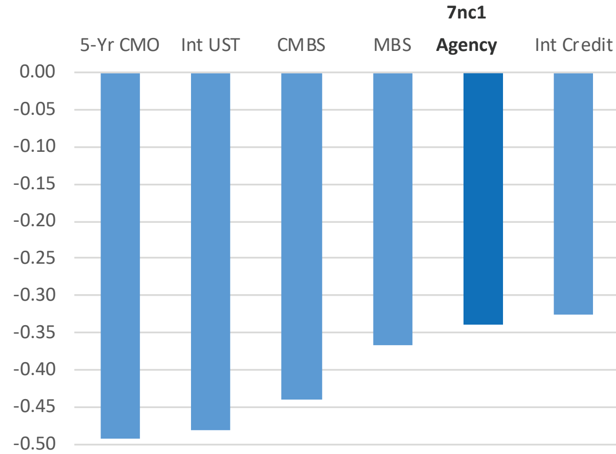
Summary

As inflation begins to fall off – rather than pause – economists continue to debate the correct way to measure inflation. The message of "Inflation Lab" is there is rarely one correct view or answer, so multiple looks deliver the best information. In *Economic Weekly*, Chris Low discusses the latest favorite of the Fed that demonstrates inflation really isn't falling at all. Read about the "Dallas Trimmed Mean PCE" here.

Callable Agency Spreads Attractive as Curve Steepens

In the last two months intermediate UST yields dropped almost 50bp. The chart tracks the net yield change since the middle of April:

Changes in Yield from April 15 to June 12
Selected Intermediate Fixed Income Sectors



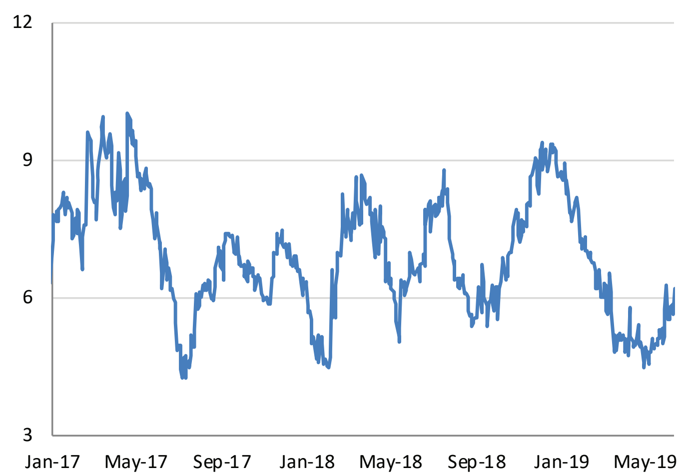
Source: FTN Financial, Bloomberg Barclays Index

Only corporate credit saw less yield evaporation than the callable. Current yield comparisons rank a 7nc1 in Durations run from 2.7 years for CMOs and 7nc1s to 5.2 years for CMBS. Despite the relatively defensive duration on callables with a first redemption in 1 year or shorter, the bonds price to the final maturity. Longer maturity callables, then, are more sensitive to the curve than implied by the economics of the embedded options:

- The 3s/7s UST curve has widened from 11bp to 18bp in the last six weeks.
- More importantly, rapid redemption of older callables has forced the issuers to pay higher funding costs for longer maturities. The 3s/7s funding curve has steepened another 10bp during the same time period. See page 15 for more on funding curve changes this spring.

Nothing has changed in terms of the relative pricing of the agency market as a whole. Intermediate bullet spreads have been flat through the entire credit episode. Rather, the dynamics of the refi cycle and option valuations account for the specific value in callables.

Agency Intermediate Bullet Weighted Spreads to UST
FTN Financial Intermediate Index
Daily
2017 to June 13, 2019



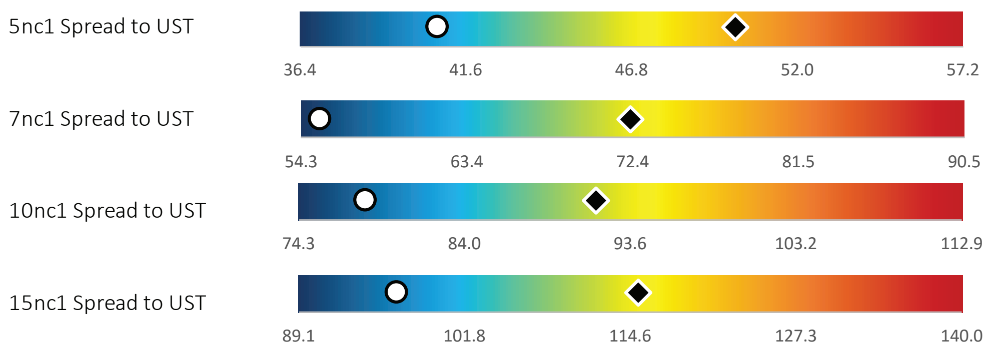
Source: FTN Financial

Spread changes need the right context

Although callable spread histories are available for more than 25 years, tracking spread values depends more on specific contexts versus statistical measures such as averages, medians, or variance over time. The last nine months is the current relevant time period, moving from a period of rising rates and no redemptions to falling rates and the most active new issue market in more than two years.

For more traditional spread charts and statistical metrics, see pages 10-12 Agency Annual 2019.pdf. Those spreads are to a similar duration bullet rather than spread to maturity vs UST.

These charts capture the range of callable agency spreads over the curve and yield volatility since last September. Here we use bellwether 1-yr callables to indicate the direction of the general market for 5-yr to 15-yr maturities. Black diamonds are current levels. White circles are levels from 2 months ago. The bonds have durations against the forward curve of 2 years to 3.6 years. Convexities range from -1.3 years to -3.5 years.



Source: FTN Financial

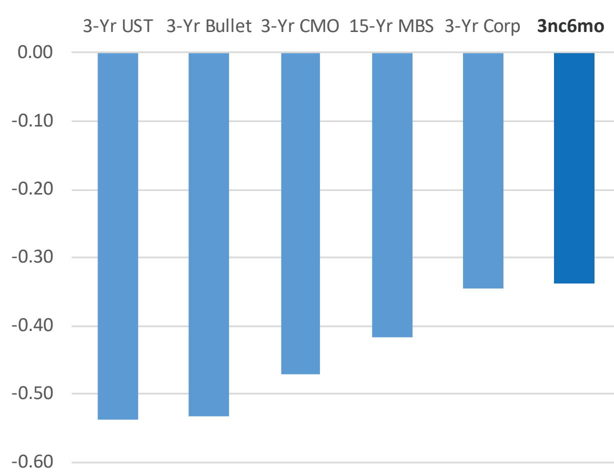
The 5nc1 shows well above the current median, with the spread 10bp above the level two months ago. The 7nc1 is at the median after a spread increase of 17bp. The only bond on this chart with a better spread increase is the 15nc1 at +19bp.

> *The heat charts were set i) on a 9-month history; ii) a lookback of 2 months for spread comparisons; and iii) a standard deviation of 1.75 to set the high/low values on each grid.*

Spreads wider on shorter lockouts for short maturities

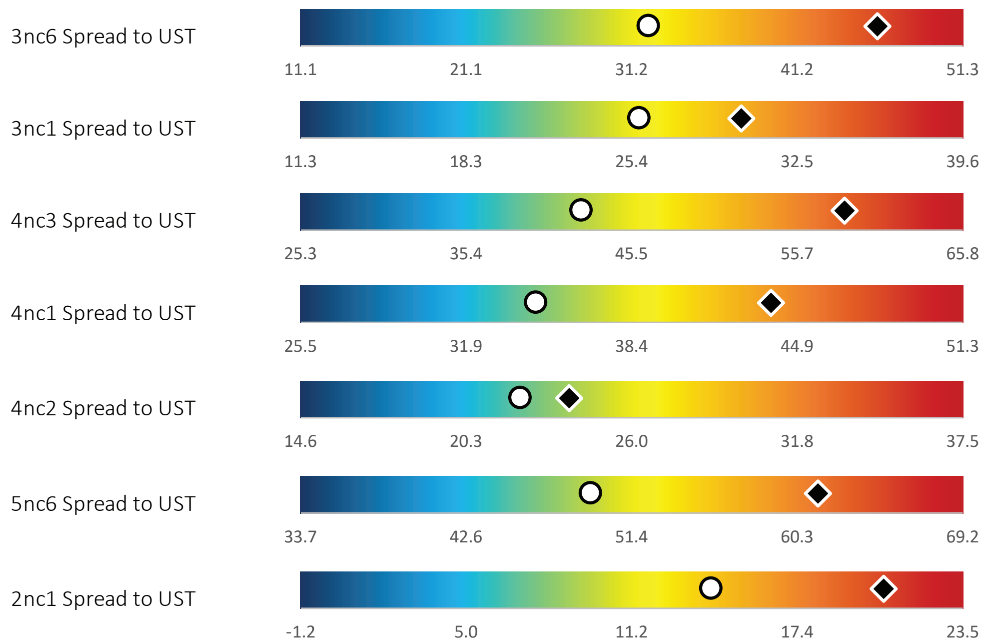
The first chart on page 12 concentrated on the full range of intermediate maturities of 1-10 years. Concentrating on the 3-yr, the chart looks like this:

Changes in Yield from April 15 to June 12
Selected 3-Yr Maturity Fixed Income Sectors



Source: FTN Financial, Bloomberg Barclays Index

Switching to a shorter lockout on the callable keeps it comparable to the a weak single-A corporate. It's a coincidence (honest) that the 3nc6 month shows up with the highest spread relative to the median of the last nine months in the 2-yr to 5-yr group that comprises FTN's regular scan. Following the theme of the subheading, the 4nc3 month shows the most widening to two months ago at +16bp.

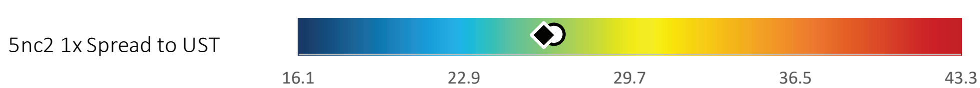


Source: FTN Financial

Rather than in maturity order, the ranking is based on popularity and recent underwriting activity.

Longer lockout spreads far quieter

The 5nc2 1x call structure was once a foundation of Fannie Mae and Freddie Mac's liability structure. Issuance volume is down to just several a month. For many intermediate portfolios, the 5nc2 1x structure is a perfect way to combine additional spread with yield stability as the market contemplates Fed easing. One look at the chart, though, shows it is a fundamental call rather than a chance to seize relative value.

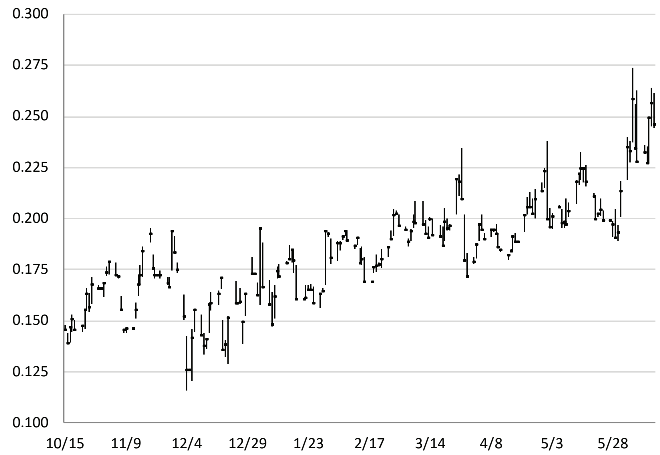


Source: FTN Financial

Two sources of curve value for intermediate callables

The first is the obvious steeping of the 5s/10s yield curve in the last month. As with everything this spring, it is not a straight line but the trend is obvious.

UST 5s/10s Yield Curve
October 15 to Present



Source: FTN Financial

Nowhere as noticeable, however, is an even more important curve. Many callables issued with maturities 5 years and shorter are swapped by issuers back to LIBOR or another floating rate market index. Longer maturities are generally sold at competitive sale, providing a cost of funding consistently well above the market rate available for the large majority of callables sold (measured by dollar volume). The cost of funding for competitive sales is implied from where the bids actually arrive versus a mirrored, fair value swap to LIBOR.

The dominance of competitive sales – now true for quite a few years but more important today with the refinancing of lower rates – keeps the funding cost curve in a nearly perpetual upward slope. Although it is somewhat sticky on a daily basis, it moves far more than most investors understand. Here's the last six months of the 5s/10s funding cost curve.

10nc1 and 5nc1 Callable Funding Spread
October 2018 to June 13, 2019

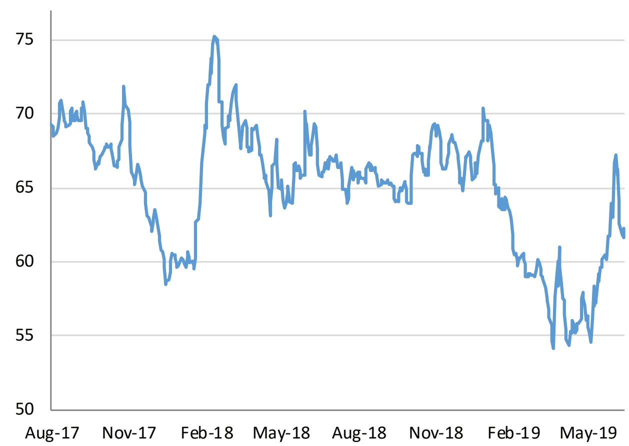
Source: FTN Financial

Option volatility spiked last month but remains low

A last component in trend analysis for call spreads is the value of the option driven by forward market risk. Several decades ago, forward or "implied" volatility closely tracked actual volatility in the market and the broad economic cycle. With increased transparency of central bank communications, the "raw" option value has fallen in importance.

A reliable barometer of both trends and large shifts is the amount of volatility measured in absolute terms (versus the still prevalent use of percentage or lognormal volatility in mortgage securities valuation). Looking at the annual move in basis points expected for a 1-year option on intermediate rates translates into how most option traders view their world – what is the baseline expectation for rate moves over the next year? This chart trends that number for 5-yr interest rate swaps for the last 20 months.

Implied Volatility on 1x5 At-the-Money Swaptions
Annualized Basis Points
August 2017 to Present
Daily



Source: ICAP, Refinitiv

<u>Conclusion</u>: Funding levels and the general yield curve are more important to intermediate callable values than option prices.

Summary

Because callable bonds contain several moving parts, many investors shy away in general and when they're interested, they ask very detailed questions. It is critical to understand the valuations, naturally, but the relative value of callables vs other fixed income securities – and which callable to buy within a long list of structures – is a matter of fundamentals and reasonably easy market dynamics. In the time it takes to get to every detail of callable agency values, the market opportunity usually moves along much faster than many investors can respond.

FTN has the resources, background, and market presence to look at both relative value on a daily or weekly basis and get deep into the weeds of individual bond or portfolio analysis.