Location, Location, Location - Shelter Costs Drive Metro Inflation Differences

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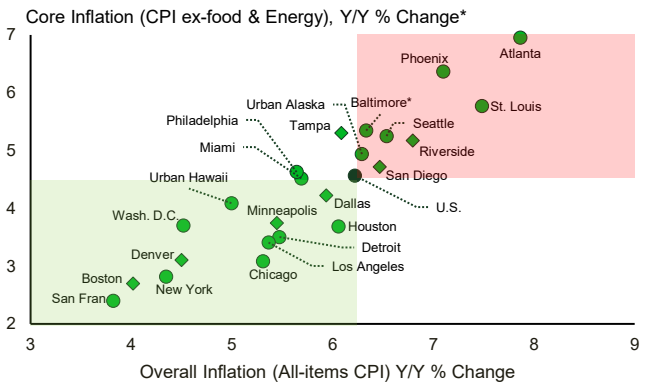
Highlights

- Red-hot U.S. inflation continues to grab headlines, but a look at metro-level data shows that price pressures vary widely across the country. Metros like Atlanta, Phoenix and St. Louis are experiencing rapid inflation in the 7-8% range year-on-year (y/y), while several of the largest U.S. metros such as New York, San Francisco and Boston are at the low end (around 4% y/y).
- Transportation has been the single-biggest contributing force behind the run-up in inflation across most metro areas, fueled by price hikes for vehicles and gasoline.
- Shelter, a weighty category in the consumption basket, has generally been the second-largest source of inflation across the 23-metro area cohort, except for in Tampa, Phoenix, and Urban Hawaii, where it is the top driving force.
- Inflation has been hottest in metros where shelter sizzles. Market-based measures indicate that there's more upside for shelter costs ahead. Given its potential to put additional upward pressure on inflation, this category will bear careful watching in the months ahead.

The recent run-up in inflation has been a hot topic, but price pressures are not even across the country. The basket of consumer goods and services used to measure inflation in the consumer price index (CPI) is a weighted index of prices for things like food, shelter, transportation, apparel, and medical care. The importance of each of these categories in the basket varies across regions, as does the rate of price growth for various goods and services. For example, the shelter category tends to make up a bigger piece of the consumption basket in areas where housing is expensive, ranging from a high of 45% in the San Francisco metro, to a low of 30% in Detroit.[1] Of course, the rate of shelter inflation also varies across cities, contributing to different rates of overall price growth.

In this report we examine inflationary pressures for urban consumers in the 21 largest U.S. metro areas, along with urban Alaska and Hawaii. In tune with the national experience, all metros have seen a run-up in inflationary pressures, but the degree of acceleration varies considerably (Chart 1). While overall inflation was running at close to 8% in Atlanta in October, it was less than half that pace in San Francisco (3.8%). Other hot inflation metros include Phoenix and St. Louis, while New York and Boston are on the cooler side like San Francisco.

Chart 1: Inflationary Pressures Vary Widely by Metro Area



*Last data point Oct 2021, except for the following metros ◆ where data extends only to September: Boston, Dallas, Denver, Minneapolis, Riverside, San Diego, Tampa, D.C., Hawaii.
Source: BLS, Haver Analytics, TD Economics.

Inflation data is released at different times for different metros, and 9 of the 23 metros presented in Chart 1, including Boston, San Diego, and Tampa only have data through September 2021. Given where inflation trends have been heading, these nine met-

ros would likely rank somewhat further up the inflation curve if October data was available. An acceleration in inflationary pressures for a few subcategories that are available through October, such as energy and shelter, reaffirms this notion.

Price increases for food, energy, transportation, and shelter have all contributed to the run-up in inflationary pressures across the 23 metros, although to different degrees. Transportation has generally been the largest source of inflation across most metros, with shelter typically a close second. That said, shelter (which tends to take up a much larger part of the consumption basket relative to transportation) has been the biggest differentiating factor when it comes to overall inflation. The metros with the hottest inflation are typically those that have seen the largest shelter cost increases.

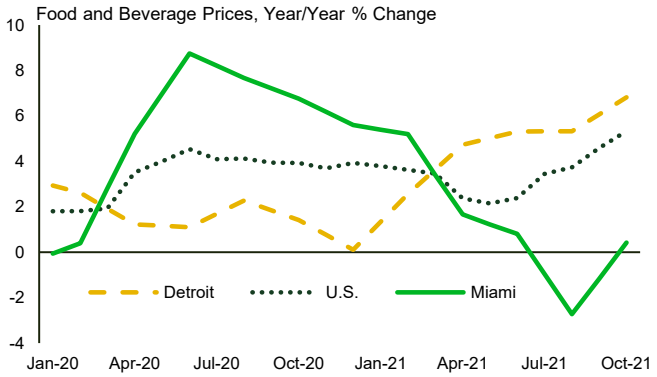
Food Inflation Mixed, Energy Inflation up by Double Digits

Food and energy are two broad categories that can be quite volatile and are typically excluded when trying to gauge underlying inflation trends. However, they tend to account for a little more than a fifth of the consumer basket, and hefty price hikes in these categories still weigh on consumer purchasing power.

Food has the larger weight of the two (averaging at around 15% across the 23 metros). Inflation in this sector has had a choppy ride over the past twenty months. Prices surged soon after the onset of the pandemic as consumers shifted to eating more meals at home, boosting demand for food at grocery stores. This period gave way to some normalcy, with monthly food price increases relatively muted between July 2020 and March 2021, only to pick up steam again in the months that followed.

This pattern has been relatively consistent across most metros examined in this report. What stands out is the fact that price pressures in metros that recorded sharper increases during the early phases of the pandemic appear to be more muted this year. Conversely, several of the metros that recorded little food inflation last year, have seen pressures pick up more aggressively in recent months (see Table 1 and example in Chart 2). While base-year effects are at play, the reversal in momentum is also likely the result of a rebalancing in prices – large deviations in food prices across regions are unlikely to be sustained indefinitely. Ultimately

Chart 2: Miami Food Inflation Slowed after Strong 2020, Detroit Momentum Exhibits Opposite Trend



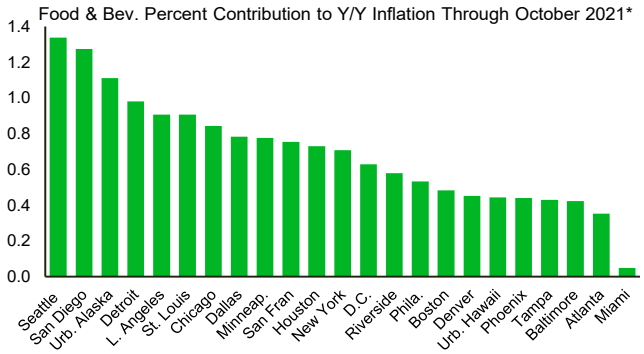
Source: BLS, TD Economics.

Table 1: Food and Inflation

Y/Y % Chg.	Mid-2020 Jul 2020	Recent Sep/Oct 2021
U.S.	4.1	5.3
Seattle	5.2	8.1
San Diego*	6.0	7.6
Urban Alaska	5.3	7.0
Detroit	1.7	6.8
St. Louis	2.6	6.4
Dallas*	2.3	5.7
Minneapolis*	3.7	5.6
Los Angeles	4.7	5.6
San Fran	5.3	5.3
Houston	2.9	5.2
New York	4.3	5.2
Chicago	3.8	5.2
Riverside*	6.6	4.1
Wash. D.C.*	3.0	3.6
Philadelphia	4.4	3.6
Boston*	7.2	3.5
Denver*	5.2	3.4
Phoenix	3.6	3.2
Baltimore	3.8	3.1
Tampa*	6.8	3.0
Urban Hawaii*	6.9	2.6
Atlanta	3.2	2.4
Miami	8.2	0.4

*Data for food & beverages category. Last observation: October 2021, except for Boston, Dallas, Denver, Minneapolis, Riverside, San Diego, Tampa, D.C., Hawaii, where data is for September 2021. ** Table ranked by latest reading on food inflation.
Source: BLS, TD Economics.

Chart 3: Food & Beverages an Important Source of Inflation for Some Metros, Minor for Others



*Data for October 2021, except for Boston, Dallas, Denver, Minneapolis, Riverside, San Diego, Tampa, Wash. D.C., Hawaii, where data is for September 2021.
Source: BLS, TD Economics.

though, the different price cycles mean that food inflation has been an important contributor to overall inflation in some metros this year (i.e., Seattle, San Diego, Urban Alaska, Detroit – contributing more than one percentage point to overall inflation), and much less so in others (i.e., Miami, Atlanta, Baltimore, Tampa) (Chart 3).

For energy, the storyline is more straightforward, with the direction of energy inflation the same across all metros. The scale of price increases, however, varies from around 40% year-on-year (y/y) in Minneapolis and Houston, to the lower 20-25% range in Urban Alaska, Phoenix and Philadelphia (Table 2).

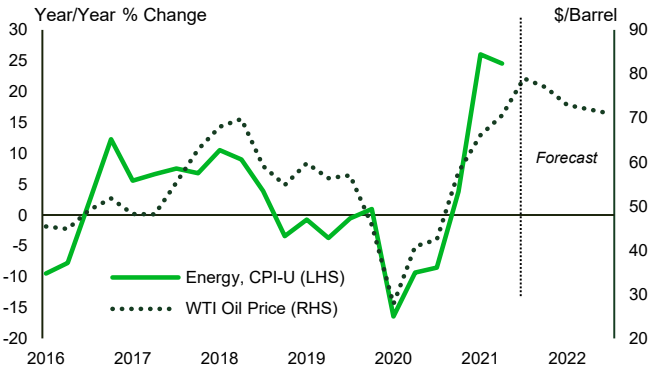
Energy includes things like motor fuel (i.e., gasoline) and household energy (i.e., home heating fuel, electricity, natural gas), which together amount to roughly 6% of the consumer basket across the group. Motor fuel inflation, which is more closely correlated to oil prices, is the hottest of the two (Table 2). Price growth for household energy is much lower but has been gathering momentum across the cohort. By autumn, inflation in this category was still running below 10% y/y in ten metros, and between 10% and 22% in another dozen metros, with Minneapolis the only metro above the 30% threshold. The energy price environment remains uncertain, especially now with the emergence of the Omicron COVID-19 variant. But overall, we expect the runup in energy price pressures to prove transitory. We expect energy prices to become a drag on headline CPI by the middle of next year (Chart 4).

Table 2: Energy Inflation

Y/Y % Chg.	Energy*	Energy Subcategories	
		Motor Fuel	Household Energy
	Oct-21	Oct-21	Oct-21
U.S.	30.0	49.6	11.2
Minneapolis	41.8	52.9	31.2
Houston	38.5	59.7	21.5
Chicago	36.1	55.4	20.1
Dallas	35.9	58.7	18.1
Denver	35.2	60.0	7.0
Boston	33.3	53.4	20.3
San Diego	33.1	42.4	19.1
Riverside	31.7	40.6	21.0
St. Louis	31.2	58.1	8.9
Los Angeles	30.0	39.4	16.9
Urban Hawaii	28.8	38.5	17.8
Atlanta	28.2	55.5	5.6
Miami	28.1	48.2	6.1
Tampa	28.0	51.0	9.0
Baltimore	27.4	43.8	12.1
New York	27.2	49.2	14.4
Wash. D.C.	26.6	42.9	12.4
Detroit	26.5	55.7	6.9
Seattle	25.8	42.9	4.6
San Fran	25.0	39.5	11.8
Philadelphia	24.4	41.1	11.5
Phoenix	23.3	46.8	3.4
Urban Alaska	19.7	53.4	-5.7

*Table ranked by energy inflation. Last data point: October 2021.
Source: BLS, TD Economics.

Chart 4: Energy's Contribution to Overall Inflation Likely to Wane with Time



Source: BLS, TD Economics. Last observation: Q4-2022.

Transportation Has Been the Biggest Source of Inflation Across Most Metros

Transportation prices have been the biggest contributing factor to inflationary pressures over the past year (Chart 5). Digging into the details shows that the two key culprits behind the strong runup in transportation prices are motor fuels (covered in the prior section) and car prices.

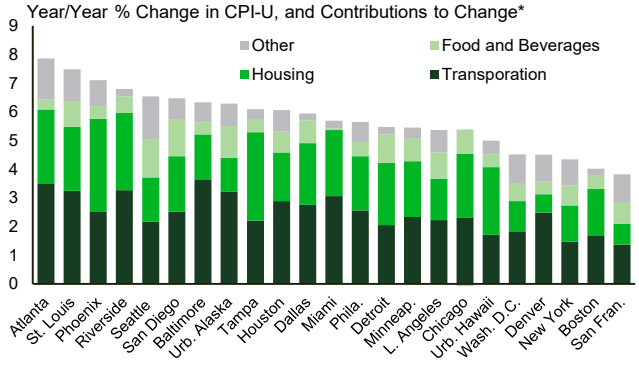
Car prices have been driven higher by a shift in consumer demand away from public transit to private transportation. A semiconductor shortage, meanwhile, has weighed on auto production, leading to very lean inventories for new cars. Against a healthy consumer demand backdrop, car buyers have had tilt to the used car market. Used vehicle prices have seen the biggest increases as a result and are up close to 40% versus pre-pandemic levels (26% y/y). New vehicle prices are also up around 10% (both from pre-pandemic levels and y/y), after many years of relatively flat prices. However, new car price momentum has been stronger in a handful of metros such as Baltimore, Philadelphia, New York and Seattle. When it comes to the 'car insurance' component of transportation, the Miami metro, which has seen a notable increase in costs (18% y/y), is the only main outlier. For the rest of the group, car insurance prices are generally either slightly below or not notably higher from year-ago levels.

Inflation Hottest in Metros Where Shelter Sizzles

Shelter, which carries a heavy weight in the consumption basket, has been the second biggest source of inflation this year across most metros. In Tampa, Phoenix, and Urban Hawaii, it has been the top contributor (Chart 6).[2] This category can be further split into "rent of primary residence" and "owner's equivalent rent". The latter is simply a measure of what owners would hypothetically pay if they were to rent their home.

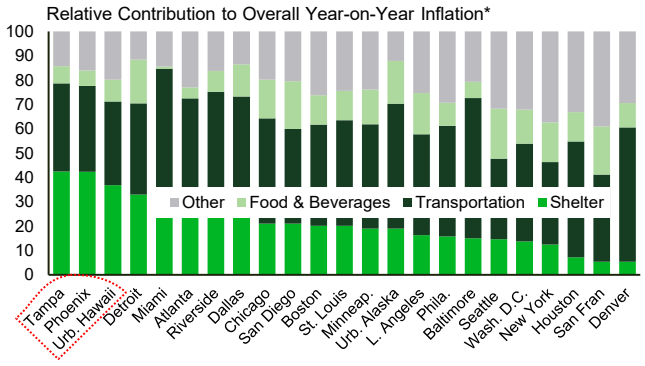
Housing affordability constraints and pandemic-related shifts in population appear to have played an important role in driving shelter inflation. Highly urbanized and more expensive housing metros such as San Francisco, Los Angeles, and New York, have recorded slower shelter inflation. Meanwhile, smaller, cheaper (and often warmer) markets like Tampa, Phoenix, Atlanta, and Detroit have seen much stronger shelter inflation over the past year. The main point to highlight is that shelter has been a key differentiating factor in overall inflation rates across metros, in part because of its significance in the consumption basket. Indeed, the metros that have seen the strongest run-up in shelter costs also tend have the highest overall inflation (Chart 7).

Chart 5: Transportation Has Been the Largest Contributor to Inflation Across Most Metros



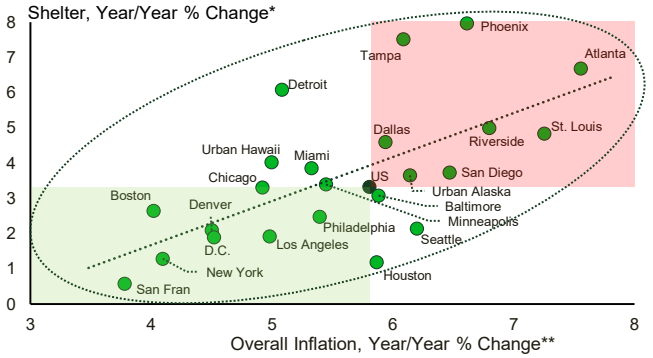
*Data for October 2021, except for Boston, Dallas, Denver, Minneapolis, Riverside, San Diego, Tampa, Wash. D.C., Hawaii, where data is for September 2021.
Source: BLS, TD Economics.

Chart 6: Shelter Has Generally Been the Second-biggest Driver (1st in Tampa, Phoenix, Hawaii)



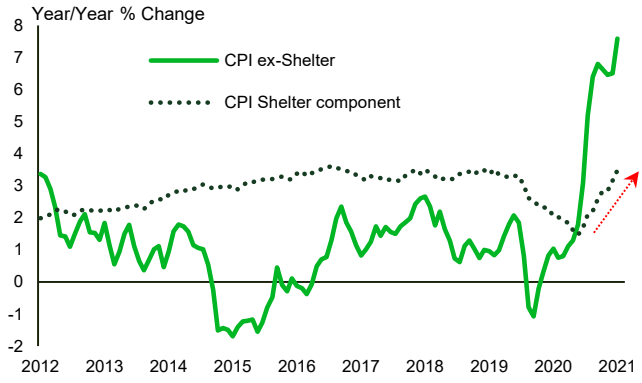
*Data for October 2021, except for Boston, Dallas, Denver, Minneapolis, Riverside, San Diego, Tampa, Wash. D.C., Hawaii, where data is for Sep 2021.
Source: BLS, TD Economics.

Chart 7: Shelter Costs a Key Differentiating Factor Behind Overall Inflation



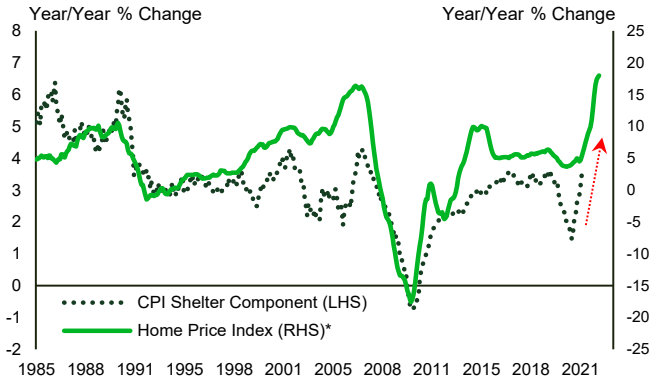
*Data for Oct 2021. **Overall CPI extends only to Sep 2021 for some metros. Both series smoothed over using 2-month moving average.
Source: BLS, Haver Analytics, TD Economics.

Chart 8: Shelter Inflation Was Still Slowing as of Early 2021, Only Turned a Corner in March



Source: BLS, TD Economics. Last observation: October 2021.

Chart 9: Strong Run-up in Home Prices Will Eventually Lead to Stronger Shelter Inflation



*15-month lead.
Source: BLS, CoreLogic, TD Economics.

Shelter is also likely to be an increasingly important source of inflation going forward. Shelter inflation pressures were slower to build, only turning a corner by March of this year (Chart 8). At the same time, the recent acceleration in this category appears rather unremarkable, with prices up only 3.5% y/y by October. That said, market-based measures show much stronger gains in both rents and home prices, suggesting that pressures have more room to build (Table 3). Indeed, shelter costs are likely to rise further as a lagged response to the strong runup in home prices (Chart 9). A shortage of housing inventory, and multifamily vacancy rates that are already below pre-pandemic levels across metros (with San Francisco and Minneapolis being the only two exceptions), further support this narrative.

Market-based measures for home price and rent growth, in combination with the weight that shelter takes in each metro (see Table 3), suggest that shelter is likely to be a significant source of inflation ahead for metros such as Phoenix, Tampa, Riverside, San Diego, Atlanta, and Denver, and less so for others such as Baltimore, Chicago, and urban Alaska. Note, however, that the selection of other market-based measures may lead to somewhat different results. For instance, with respect to home price growth, Redfin metrics tend to show stronger growth in Urban Alaska/ Anchorage and softer growth in San Francisco compared to the Zillow measure.

The Bottom Line

National inflation statistics tend to grab the limelight, but inflation varies by region. Over the past year, shelter inflation has been a key differentiating factor for inflation across metros. Metros that have seen the strongest runup in shelter costs include Phoenix, Tampa, Atlanta and St. Louis. Meanwhile some of the nation's largest metros, such as San Francisco, New York, D.C. and Boston, rank lower on both shelter and overall inflation. With market-based price metrics pointing to additional upside for shelter inflation, this category has the potential to become an increasingly important source of inflation and will merit close attention in the months ahead.

Table 3: Shelter Component Likely to Keep Some Upward Pressure on Inflation					
Y/Y % Chg.	Price growth	CPI component	Rent growth	CPI component	Shelter CPI weight (%)
	Median home value (Zillow)	Owners' Equivalent Rent of Residences	Multifamily rent Index (CoStar)	Rent of Primary residence	
Metro area	Q3-2021	Oct 2021	Q3-2021	Oct 2021	2021
Phoenix	32	9.2	23	5.0	35.0
San Diego	26	3.6	13	3.2	36.0
Riverside	26	4.3	15	4.9	37.9
Tampa	26	8.2	25	8.3	38.5
Seattle	23	1.5	10	1.7	36.3
Atlanta	22	6.3	19	7.5	33.2
Denver	21	4.3	13	2.6	36.2
Dallas	21	4.4	14	4.0	36.3
Los Angeles	19	1.3	6	1.5	40.1
Detroit	18	6.3	8	6.3	29.5
San Fran.	18	0.8	6	-0.4	45.2
Philadelphia	17	1.2	9	2.3	33.0
Houston	17	1.5	9	1.3	33.4
Boston	16	2.7	10	1.5	38.3
Miami	16	3.7	15	3.0	42.8
St. Louis	16	2.9	7	3.8	31.8
Urban Hawaii	15	2.6	11	2.1	41.2
Minneapolis	14	3.3	3	2.5	33.8
Wash. D.C.	14	1.7	9	-0.3	32.7
New York	14	1.5	4	0.2	39.3
Baltimore	14	2.4	12	0.0	35.8
Chicago	14	2.6	8	2.6	33.8
Urban Alaska	4	3.4	9	2.2	31.8

*Table ranked by home price growth (first column).
Source: BLS, Zillow, CoStar, TD Economics. Data as of October 2021 and Q3-2021.

Endnotes

1. Abbreviated from San Francisco-Oakland-Hayward, CA. All metro areas are abbreviated in similar fashion in the text (i.e., by writing only the name of the city that leads the metro). Another example: Riverside refers to the Riverside–San Bernardino–Ontario, CA metropolitan area.
2. Shelter is a subset of housing; it excludes elements such as household energy and home furnishings from the latter.

Disclaimer