Economics

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Even at a Record High, Gas Costs Less than it Used To

Economist(s)

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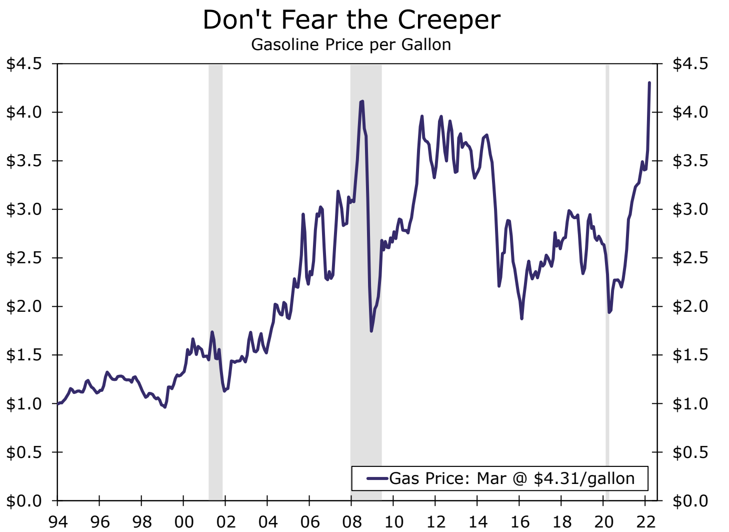
Summary

Inflation is the top problem for consumer spending in 2022. Full stop. Having said that, dire warnings about consumer spending amid record high gas prices fail to take note of the fact that wages have outpaced gas prices over time. Worries about price impacts on the low-income consumer are warranted, but perhaps would be better directed toward the middle class.

Fill it Up: Gas Is not as Expensive as You Think

The most consistent theme in our consumer coverage over the past year has been the fact that inflation is the biggest challenge to consumer spending; it is the reason we lowered our full-year consumer spending forecast in each of the past three months. Other headwinds like Fed tightening, the Omicron variant and supply shortages all take a backseat to the fact that prices growing faster than incomes creates an unsustainable backdrop for consumer spending growth. That said, the hand-wringing over the recent run-up in gasoline prices overstates the importance of this factor on consumer spending. None of this is to suggest that higher gas prices are a positive for consumer spending. The sudden price increase in a product most households cannot do without has historically been associated with wilting consumer sentiment.

Still, a clear-eyed assessment of the facts on this topic suggests higher gasoline prices alone are not enough to meaningfully impact overall consumer spending, even if it does force slower spending growth in other categories. Over time, wages have outpaced gasoline prices, which means that even though gas prices are near record highs, the outlays on gas and other energy products are not nearly as high as they were in prior cycles. High gas prices are a headache, but not a sign of serious illness for consumer spending.



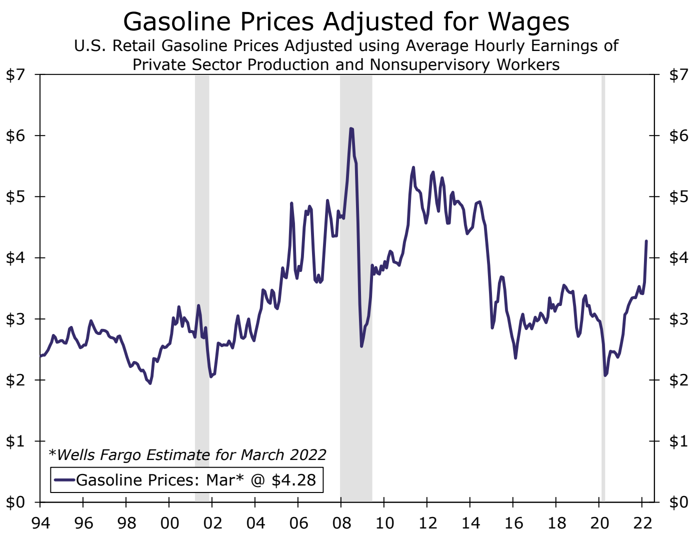
Source: U.S. Energy Information Association (EIA) and Wells Fargo Economics

Wages Have Risen Much Faster than Gas Prices

It feels like ancient history today, but less than 24 months ago at the height of the pandemic lockdowns in April 2020, gasoline prices fell below $1.75/gallon. In many cities, gas stations had attendants pump gas for motorists while offering contact-free payment. By the end of 2021, prices were back up north of $3/gallon, roughly the average price from 2011-2014, but a bit higher than the six years that preceded the pandemic. In the wake of Russia's invasion of Ukraine, the national average is north of $4/gallon (Figure 1) and in some markets is more than $5/gallon. With prices near all-time record highs, thoughts predictably pivot to the potential impact on consumer spending.

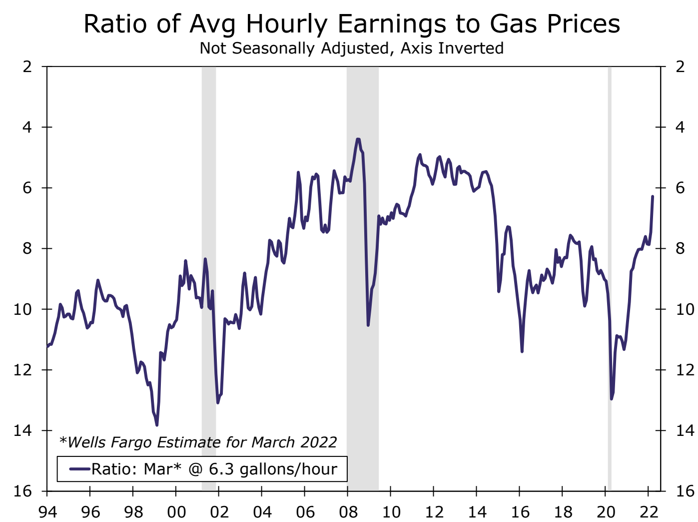
Gas prices at a record high are certainly not a positive for consumer spending and a sudden increase in costs can be disconcerting, but an overlooked development over the past generation is that wage growth has outpaced gains in gas prices. In Figure 2, we use the average hourly earnings of production workers as a price deflator to put today's prices in context. Using this measure, $4.28 is just above the midpoint of the range ($3.70) over the past decade.

Figure 2



Source: EIA, U.S. Department of Labor and Wells Fargo Economics

Figure 3



Source: EIA, U.S. Department of Labor and Wells Fargo Economics

How Much Gas Can you Buy with One Hour of Work?

There is another way of making the same point about gas costs not being all that large as a share of income. In this approach, we simply consider the question: how many gallons of gas can you buy with one hour of work at the average hourly wage and how has this evolved over time? In the early 2000s, gasoline was cheap. For most of the time between 2000 and 2004, gas prices stayed well below $2/gallon. In those same years, average hourly earnings hovered just below $15/hour. So one hour's worth of work was enough to buy 9 or 10 gallons of gas. By the end of that decade, a gallon of regular unleaded first climbed above $3.00 in 2006 and was over $4.00 by its peak in that cycle in 2008. Since average hourly earnings had only climbed to $17 or $18/hour in those years, an hour's work only purchased five or six gallons of gas. At the low point in 2008, an hour's work put less than four and a half gallons in the tank.

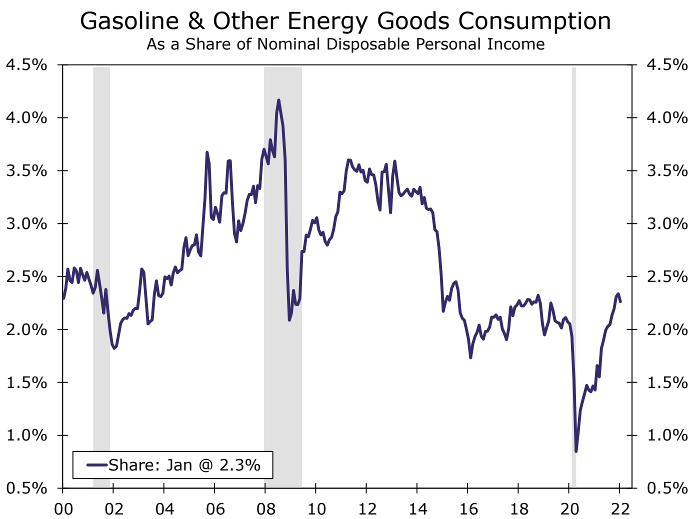
The labor market is extraordinarily tight today and the seller's market for labor has resulted in substantial gains in earnings. Average hourly earnings crossed over $25/hour in 2020 and is now around $27/hour. Even at today's record high price, someone earning the average hourly rate can put more than six gallons in the tank (Figure 3) or about 40% more gas than average wages would have purchased at the height of gas prices in 2008.

On average, since 2005, an hour's work at average hourly earnings purchased 7.4 gallons of gas; today, even at a near record high price per gallon, that same hour of work buys 6.3 gallons.

Just How Much Do We Spend on Gasoline?

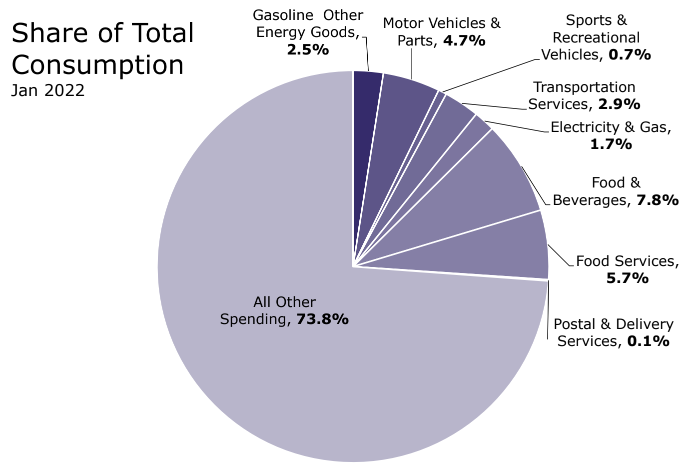
So just how much do consumers actually spend on gasoline? Just about 2.5% of consumers' budgets were dedicated to gasoline and other energy goods consumption as of January. Barring the pandemic related decline, this share is roughly consistent with the average over the past six years (Figure 4). Even when we factor in the categories of spending that may be indirectly tied to gasoline such as auto purchases, transportation services (public transportation, airfare) and food, nearly three quarters of consumption should remain fairly insulated from higher gasoline prices (Figure 5). Consumers may have to cut back on spending on other items as these goods and services cost more, but these purchasing patterns suggest overall spending should hold up amid higher gas prices.

Figure 4



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

Figure 5



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

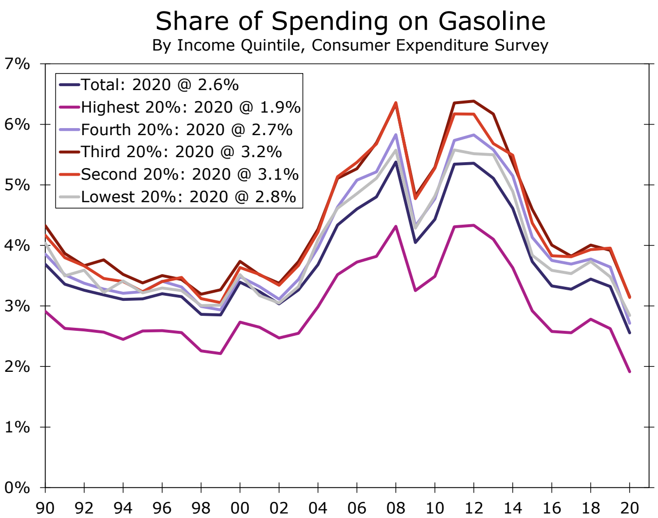
Lower Income Households Do Not Spend a Disproportionately Large Share on Gas

It is often said that because lower-income households spend a higher share of income on gasoline, this group is disproportionately impacted by price spikes. A careful look at the data shows this is not always the case.

The fact of the matter is that the middle class typically spends the largest share of its income on gasoline. Figure 6 breaks out spending by income quintiles and it is clearly evident that over time, it is the third quintile (middle group) that spend the most on gasoline. Sometimes the second group (lower middle class) displaces them, but the poorest households are typically in the middle of the pack in terms of gasoline as a share of spending. The lowest income households typically rely more on public transportation and if they do own a car it is more likely to be a shared vehicle. As households work their way up the income spectrum, they are less reliant on public transportation and are more likely to have a second vehicle.

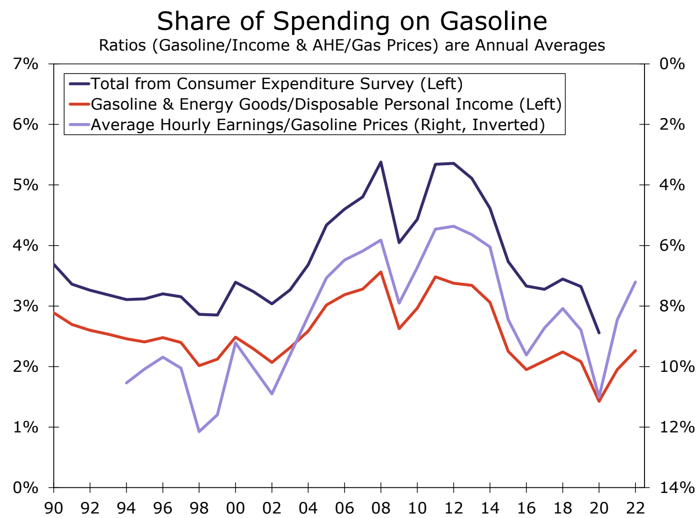
It is also intriguing to note that these data also corroborate our exercise with how much gas you can buy with average hourly earnings over time. This is annual data, and it lags a bit, the most recent numbers are from 2020. When the data for 2022 are eventually available we would expect all the lines on the chart to go up. In fact, we see this in Figure 7, where we plot the annual averages of the aforementioned monthly ratios, gasoline and other energy goods as a share of disposable personal income and the ratio of hourly earnings to gas prices, compared to the total from the Consumer Expenditure Survey in Figure 6. Both of these ratios have ticked up more recently, but remain within recent ranges. Even with the current data lag, it is still interesting to see that for almost every income category, households have been spending less on gasoline as a share of total income than at any other period in the preceding 30 years.

Figure 6



Source: U.S. Department of Labor and Wells Fargo Economics

Figure 7



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

Inflation is chipping away at the growth rate of real personal consumption and high gas prices do not help. But old notions that gas prices force hard choices for consumers, particularly low income consumers does not resonate today. Even at record high prices, the earnings from an hour's work still buys about as much gas at it has over the past 30 years; and it is the middle class that spends the largest share of its income on gasoline.

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