What Do High Interest Rates Mean for Tie Demand?

By Petr Ledvina

Three weeks before the Federal Reserve Board (FED) June meeting, many observers anticipated the FED would pause with rate hikes. Then, in just two days, the probability of a rate hike in June changed from 34 percent on Wednesday, to 52 percent on Thursday and to 71 percent after the Personal Consumption Expenditure (PCE) report on Friday (www.cmegroup.com). Yet, there were still two important macroeconomic numbers to be released before the June FED decision—the consumer price index (CPI) and unemployment numbers. And while it is not possible to predict if more rate hikes will come, the likelihood of it is lower with each.

What drove the probabilities so high? The three major indicators watched by the FED: the April Labor Market report, the advance GDP growth report, and the April Personal Income and Outlays report, which includes the FED's preferred measure of inflation – the core PCE price index.

Currently the labor market is strong and unemployment is low. The labor force participation rate has been slowly increasing, reaching the same level as in August 2018, though still half a percent below the 2019 average. In March, the job openings-to-unemployed ratio stood at 1.64. This was down from an all-time high of 2.01, though, a far cry from the 2019 average of 1.19 (Figure 1). Needless to say, the ratio has been stuck above one for some time, and its longer-term trajectory does not look favorable. The reasons for this were discussed in depth in the article "Labor Woes Affect the Economy, Not Tie Demand" in the May/June 2022 *Crossties*. Considering lower birth rates and boomers' retirement, the only favorable change for an increase in labor supply is an indication that legal immigration is picking up after a two-year lull.

In addition, initial unemployment claims remain low despite continuing layoffs, especially in the tech sector. Recently, Microsoft announced another round of layoffs: about 700 jobs at LinkedIn, a company with over 19,000 employees. Meta also indicated a third round of job cuts in the near future, and several other tech companies are in the same boat. However painful for the individuals affected, the layoffs can be characterized as inconsequential because ample jobs are available—for now.

The GDP growth and Personal Expenditure reports showed consumer spending was better than expected. A good portion of consumer funds come from increasing personal income, which rose by 0.4 percent in April, while some of it comes from consumer deposit and saving accounts, which are still elevated. The average household had about 24.6 percent higher real deposits in Q4 2022 than they did before the pandemic two-year average. Still, this is an 8.5 percent decline from its recent peak in Q4 2021 (Figure 2). In addition, some consumers increasingly utilize revolving credit for purchases. Adjusted by the average hourly wage, revolving credit rose by 20.2 percent from its pandemic low in April 2021, still 1.3 percent below the level in March 2020.

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Despite relatively high mortgage rates, the housing market shows resiliency. Prices have moderated, and the S&P/Case-Shiller house price declined by 4.9 percent from its recent peak in June 2022. Nonetheless, the index is still up by 2 percent from a year ago. Similarly, housing permits have declined from their peak, but they have been on average 5.6 percent above a 10-year average for the last five months. Underscoring the resiliency of the housing market, in the last five months total privately-owned housing unit starts were on average 9.3 percent above the 10-year average.

In contrast, mortgage origination declined by almost 60 percent from its peak in Q2 2021. Compared to the pre-pandemic five-year average, origination volume is down by 22 percent. In May, the Wells Fargo Housing Market Index—gauging conditions in the new single-family housing market—was at 50, a higher reading than in December when the index was at 31. At the same time, average mortgage rates are on the rise from their recent lows of 6 percent to about 6.6 percent.

The PCE report also showed a continued shift from purchases of goods to services. During the pandemic, spending on goods increased from 31 percent of total PCE to almost 36 percent in March 2021. Since then, the proportion has declined to about 33 percent. Partly for this reason, the S&P Global PMI manufacturing index declined to 48.5 in May, down from 63.4 in August 2021 while the S&P Global PMI services index have been on a rise since January, reaching 55.1 in May.

The lower demand for goods translates into lower movement of containers through U.S. ports (Figure 4). In fact, the 12-month moving average of inbound loaded containers in U.S. ports declined by 18.3 percent on the West coast and by 5.5 percent on the East coast compared to last year (April-to-April). It's quite possible that this has a two-fold effect on the tie market. First, the demand for competing pallet lumber is declining, thus providing more capacity for tie production. In turn, this was reflected

New Wood Crossties (in thousands)

Year	Real GDP	Class 1 Purchases	Small Market Purchases	Total Purchases	Pct
2020	-2.8%	15,309	3,175	18,483	-0.5%
2021	5.9%	14,813	3,948	18,761	1.5%
2022	2.1%	14,797	3,599	18,397	-1.9%
2023	0.7%	14,660	3,491	18,151	-1.3%
2024	1.2%	14,802	3,788	18,591	2.4%

in the pricing of pallet lumber and cants (Figure 3). And second, it also means lower intermodal traffic on the railroads. However, the slowdown in traffic was not confined to containers (more in Business Trends).

High interest rates have increased borrowing costs for businesses and also cause stress in the banking sector due to a devaluation of their hold-to-maturity U.S. Treasuries and other bonds. No bank could withstand a run on its deposits due to the fractional reserve system (banks hold only a fraction of all deposits in cash). The FED had to step in and provide the necessary liquidity by increasing its balance sheet by almost $400 billion. The federal government also stepped in, virtually insuring all deposits.

The recent high-profile banking failures seem to be just the tip of the iceberg. As borrowing costs rise with rising rates, S&P Global reported that corporate defaults are also on the rise, as companies cannot handle higher interest rate payments. The report cautions that the year 2023 could produce one of the highest number of defaults in recent years. Higher corporate defaults could translate into higher unemployment and eventually to economic slowdown. As a result, bond investors have been buying longer-term government bonds (10-year and above), rather than short-term bonds, as they expect the FED to cut rates soon to stimulate the economy. This causes the Treasury yield curve to be inverted. Since 1955, the inversion of the yield curve has been a very reliable predictor of a pending recession anywhere between seven and 18 months later.

Weaker demand for goods with resulting weaker intermodal traffic and higher borrowing costs will have an impact on the railroad companies and tie demand. As such, RTA's tie demand forecast for 2023 was revised lower by 258,000 ties from the January numbers (see table). The outlook for 2024 is more positive, with a projected increase of 2.4 percent from this year. This assumes a very shallow recession this year and higher GDP growth of 1.2 percent in 2024 (March Standard and Poor's economic forecast). Due to adverse developments in the credit markets, there is a significant downside risk for the economy in the mid-term, and specifically for tie demand in 2024. ■

Figure 1

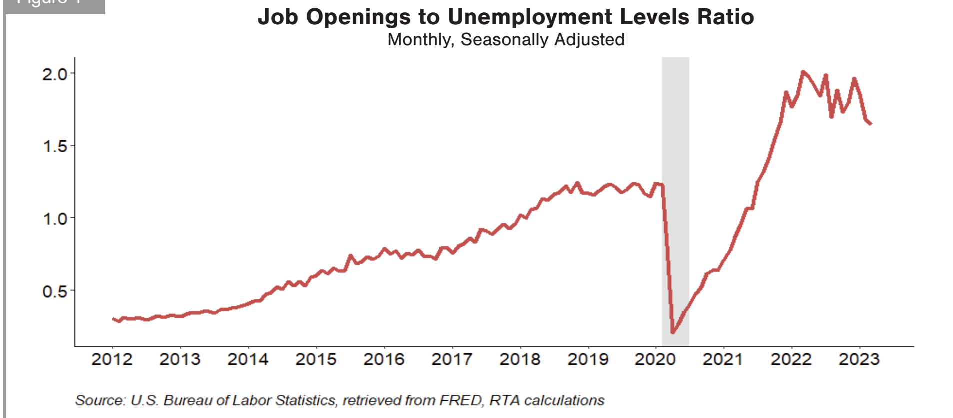


Figure 2

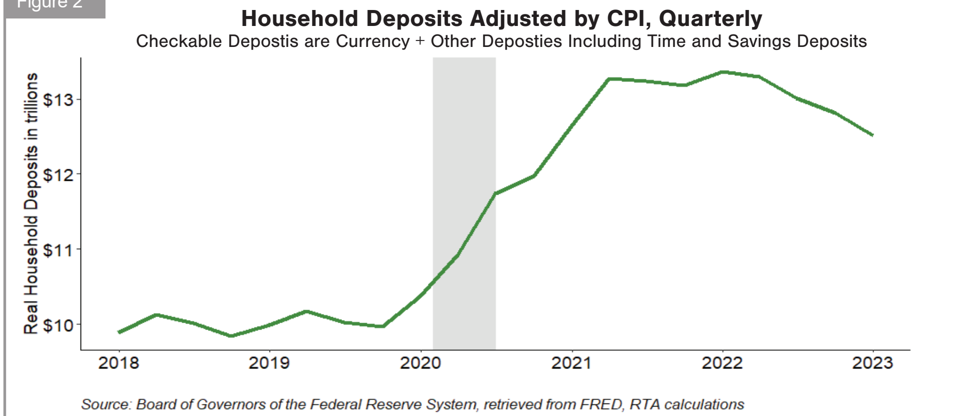


Figure 3

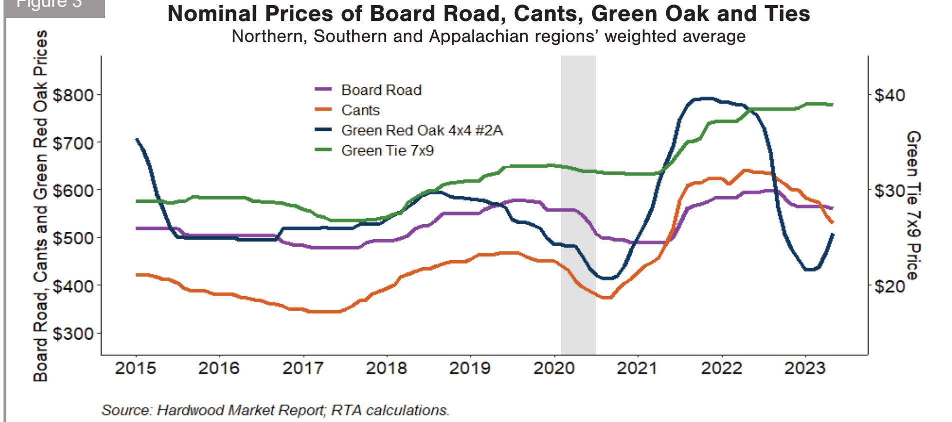
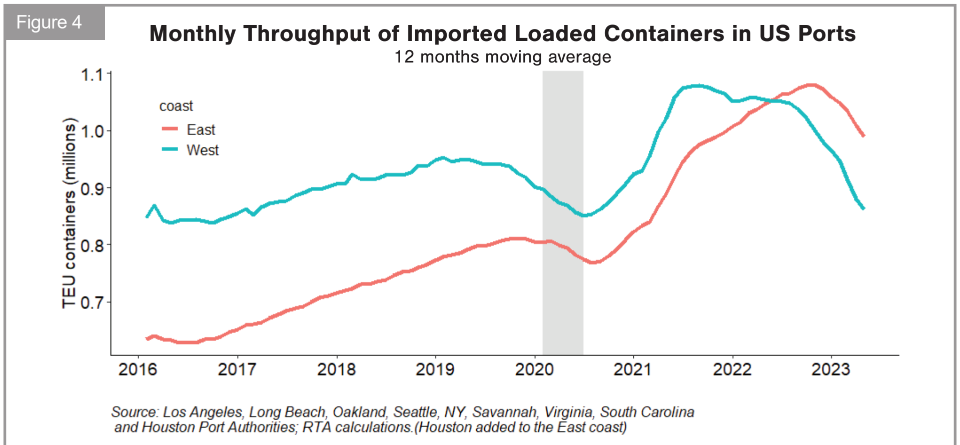


Figure 4



RAILROADER PROFILE: CALVIN MATTHEWS, CSX

Now Is A Great Time To Enter The Railroad Industry, Matthews Says

Calvin Matthews grew up in the railroad town of Florence, S.C. Both sets of grandparents had retired from the Seaboard Coast Line (SCL), which is now CSX. He said he did not realize that railroading had always been in his blood.

In 2006, following a 23-year career with the U.S. Navy, during which time he served 13 years as a Supply Corps officer, eight years as a Seabee in the U.S. Navy Construction Force, and two years as an officer candidate at the University of South Carolina, Matthews gained employment in the copper mining industry in Arizona. He was later employed by General Electric in Houston.

"While seeking opportunities on the East Coast where I could be closer to family and utilize my experience and expertise in all things supply chain and logistics, I was hired for a materials manager position in October 2013 with CSX in Baltimore."

Matthews provided insight into his responsibilities at CSX in the Q&A below.

What are your primary responsibilities? My primary responsibilities involve providing materials management, procurement and supply chain and logistics support for railroad track-related material to CSX Engineering Department's Northeast and New England regions. I actively support 60 track supervisors, nine bridge supervisors, more than eight signal managers, four program construction managers, and more than four design and construction managers. These managers and their teams are located across 16 states, Washington D.C., and two Canadian provinces.

What makes your railroad stand out above the competition? Our safety culture, sustainable growth through environmental, social and governance practices, and cultural transformation. Now is a great time to join CSX Transportation.

Since you started in the industry, what changes have you encountered in the industry? Over the past 9.5 years, railroad companies have employed and continue to employ the latest technologies in operations and engineering, i.e., aerial drones, IIOT, AI, machine learning, data science, etc.

During the past couple of years, due to impacts to supply chains resulting from the COVID-19 pandemic, we have experienced challenges and delays in acquiring various track components necessary to keep trains moving. Although improving, I am cautiously optimistic of the longevity of recent improvements across the supply chain.

If you could change something about the railroad industry today, what would it be? On the supply chain/materials management side of the house, I would streamline and automate manual procurement and supply chain processes. I would eliminate manual data entry and leverage the capabilities of procure-to-pay, logistics and supply chain systems through data and systems integration or something similar.

Would you recommend others get into the railroad business? Now is a good time to enter the industry. It's one of the few industries left where one could spend an entire career and earn a good living. It has both a physical work component and an office component. Plus, the railroad industry will continue to employ the latest technologies.