BANK OF AMERICA INSTITUTE

BANK OF AMERICA

Consumer Morsel

Retail inventories: too much or too little?

21 July 2022

Key talking points

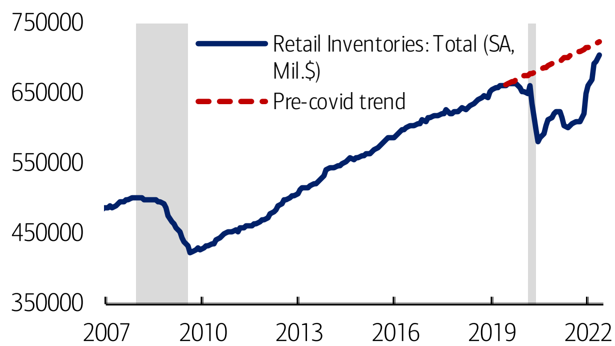
- Aggregate retail inventories have been steadily improving as demand for goods moderates and supply chain bottlenecks ease. The retail inventory to sales ratio has ticked up from the Oct 2021 trough, yet it is still below the 2011-2019 average. That said, the story varies across sectors.
- At one extreme, general merchandise stores are overstocked but the good news is that excess inventories could put downward pressure on inflation as big box retailers mark down their prices to entice consumers. At the other extreme, auto retailers continue to face shortages with inventory tightness likely persisting into 2023.
- Furniture and electronics stores are seeing inventory to sales ratios increasing to their pre-COVID trend as demand cools. Bank of America internal card data suggests furniture spending has been negative on a % year-over-year basis since March. Inventory is also building at clothing stores amid fading demand for casual attire as consumers go back to offices

Retailers in the US experienced major disruptions from the pandemic in the last few years. Real goods spending surged during the pandemic and peaked in March 2021. As a result, the surge in goods demand led to a big drawdown of retail inventories as supplies failed to keep up. That narrative, however, started to shift since the beginning of this year as supply chain bottlenecks eased and consumers shifted from goods spending to services spending.

As Exhibit 1 shows, total retail inventories rose to $705 billion in May, the highest on record and just 3% lower than its pre-COVID trend. That said, nominal levels of inventories can be inflated by higher prices. Given that inflation usually impacts nominal inventories and minimal sales by a similar magnitude, we think a better measure to track is the inventory to sales ratio, or months' supply (i.e. the number of months it would take to sell all the inventories at the current sales pace). The retail inventory to sales ratio has ticked up from the trough in Oct 2021 but remains much lower than the 2011-2019 average (Exhibit 2).

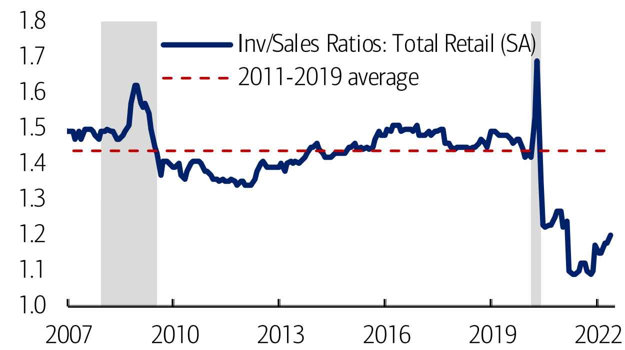
Beneath the aggregate number, there are more nuances across sectors. Data suggests general merchandise stores might be overstocked, which was echoed in earnings reports for some big box retailers. Meanwhile the auto industry continues to battle with the shortage problem. In this piece we also take a look at other major sectors.

Exhibit 1: Total retail inventories (monthly, Seasonally Adjusted (SA), $ Mil)
Nominal levels of retail inventories reached a record high



Source: Census Bureau. Shading means recessions.

Exhibit 2: Total retail inventory to sales ratio (%, SA)
Inventory to sales ratio, or months' supply, remains well below the 2011-2019 average



Source: Census Bureau. Shading means recessions.

General merchandise: too much, too late

In the past few months, big box retailers, including Walmart and Target, have repeatedly discussed the potential over-stocking problem. This is confirmed by data from Census Bureau which shows inventory to sales ratio for general merchandise surged to 1.58 in April and May, notably higher than the 2011-2019 average of 1.44 (Exhibit 3).

What caused this shift from supply shortages to overstocking? We see two main factors. First of all, stocking decisions are made a number of months in advance and do not reflect the current environment. Big box retailers stocked a large amount of items such as home goods, electronics and big ticket items expecting continued resilience in demand. However, consumers quickly rotated to services spending this year and high inflation is also keeping some consumers at bay. Second, there is a mismatch between supply and demand in inventories. In other words, the inventory in stock isn't what consumers are trying to buy. Due to supply chain snarls, some inventory arrived too late to sell during the right season, which has prompted various big box retails to announce discounts to decrease unwanted inventories and attract more buyers in general.

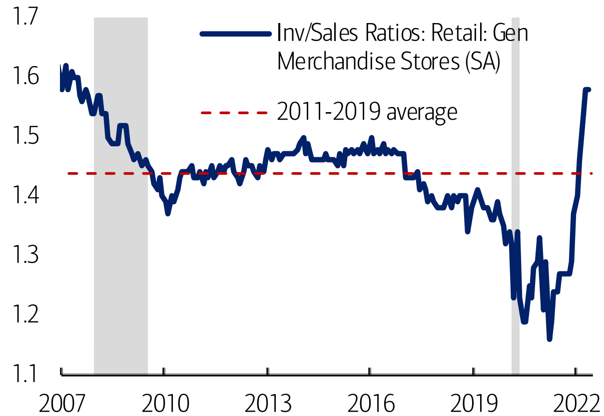
Autos: lower for longer

Unlike general merchandise which is seeing excess inventory, the autos industry continue to face shortages problems. Back in 2020, auto manufacturers cancelled chip orders as car demand plummeted while chip manufacturers shifted their focus to other areas that got a boost in demand such as computers and mobile devices. However, auto demand quickly rebounded as consumers received generous fiscal stimulus and shifted away from public transportations for social distancing reasons but supply hasn't been able to keep up.

As Exhibit 4 shows, the inventory to sales ratio for autos dropped significantly in 2021 and has only ticked up marginally this year while remaining well below its historical levels. Lack of auto inventories has also been the main driver for extremely elevated car prices: according to the Consumer Price Index (CPI) report, new and used motor vehicles prices increased by 14% year over year (YoY) in 2021, although it has slowed to 9.5% YoY in June 2022, which is still extremely elevated compared with historical standards. The auto analysts in BofA Global Research believe auto inventory tightness will very much persist through 2022 and into 2023 though auto demand could also be slowing due to high inflation and plunging consumer confidence.

Exhibit 3: Inventory to sales ratio: general merchandise (monthly, %, SA)

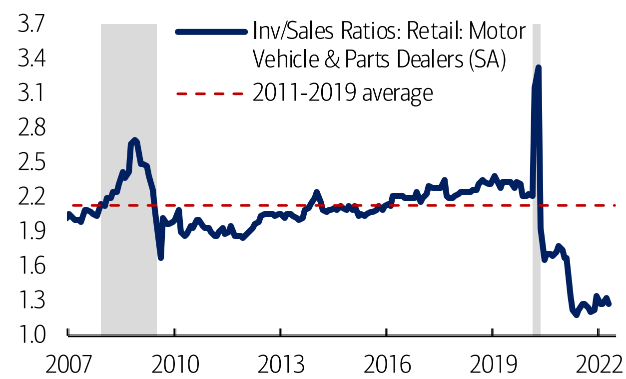
Inventory to sales ratio for general merchandise surged to 1.58 in April and May, notably higher than the 2011-2019 average of 1.44



Source: Census Bureau. Shading means recessions

Exhibit 4: Inventory to sales ratio: motor vehicle and parts dealers (monthly, %, SA)

Inventory to sales ratio for autos dropped significantly in 2021 and has only ticked up marginally this year while remaining well below its historical levels



Source: Census Bureau. Shading means recessions

Furniture and electronics stores: back to the norm

In the furniture and electronics sector, inventory to sales ratio has been building up steadily for the past year as demand cools and supply side bottlenecks ease. According to the retail sales report from Census Bureau, sales at furniture and electronics stores have been contracting on a YoY basis since March this year. The internal Bank of America aggregated credit and debit card data also suggests furniture spending remained negative on a %YoY basis as of early July (Exhibit 6). This is likely due to a combination of factors: 1) saturated demand from strong spending in these sectors in the past few years, 2) rotation to services spending, and 3) a cooling housing market. That said, despite slowing sales, there is no sign of overstocking yet as inventory to sales ratio is in line with its 2011-2019 average of 1.6 (Exhibit 5).

Clothing stores: casual or formal, that is the question

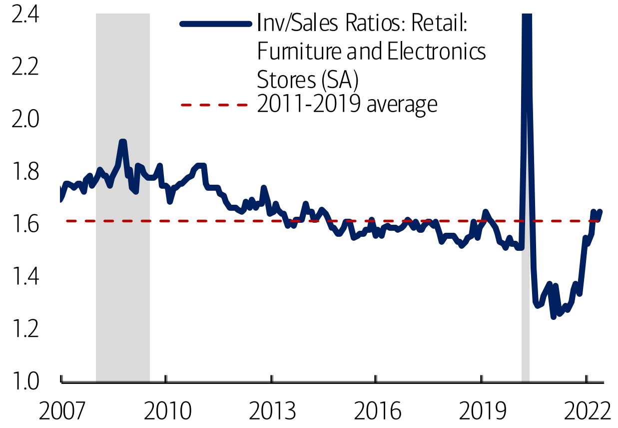
Census data also shows clothing spending was also negative on a %YoY basis in June. Lower clothing demand combined with easing supply chain constraints means Inventories for clothing stores have also been rising. Specifically, inventory to sales ratio was at 2.18 in May 2022, which was the highest since February 2021, but it was still lower than the 2011-2019 average of 2.40

(Exhibit 7). Similar to general merchandise, there seems to be a mismatch between demand and supply at clothing stores as well: press reports suggest that demand for formal attire is rising again as consumers head back to office and to formal events like weddings whereas clothing retailers have a lot of casual attired in inventory for which the demand has slowed considerably.

Bottom line

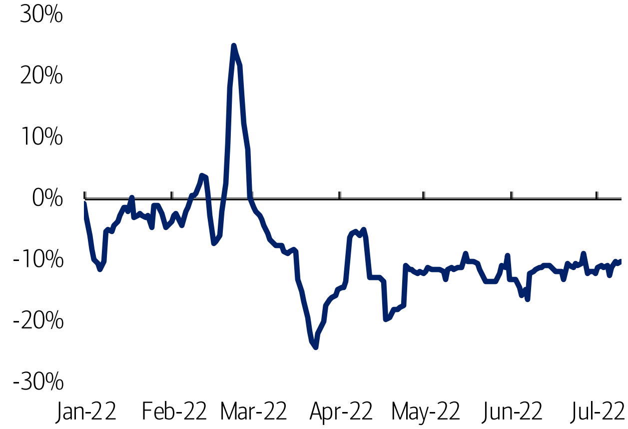
The bottom line is that aggregate retail inventories have been steadily improving as demand for goods moderates and supply chain bottlenecks ease. That said, the story varies across sectors. General merchandise stores seem to have overstocked while autos retailers continue to face shortages. The good news is that excess inventories at general merchandise stores could put downward pressure on inflation as big box retailers mark down their prices to entice consumers.

Exhibit 5: Inventory to sales ratio: furniture and electronics stores (%, SA, monthly)
Despite slowing sales at furniture and electronics stores, there is no sign of overstocking yet



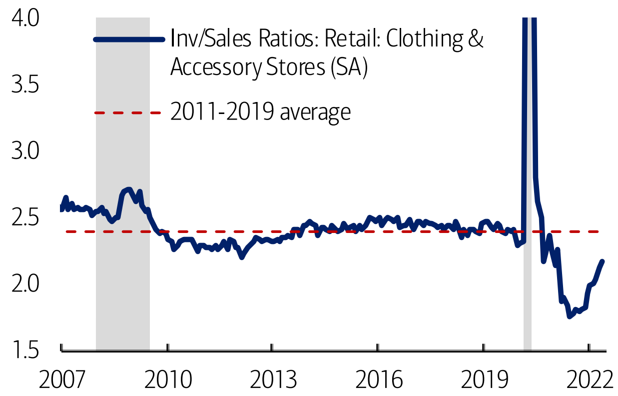
Source: Census Bureau. Shading means recessions.

Exhibit 6: Spending at furniture stores, based on aggregated Bank of America card data (daily, %YoY, 7-day moving average)
Internal Bank of America card data also suggests furniture spending remained negative on a %YoY basis as of early July



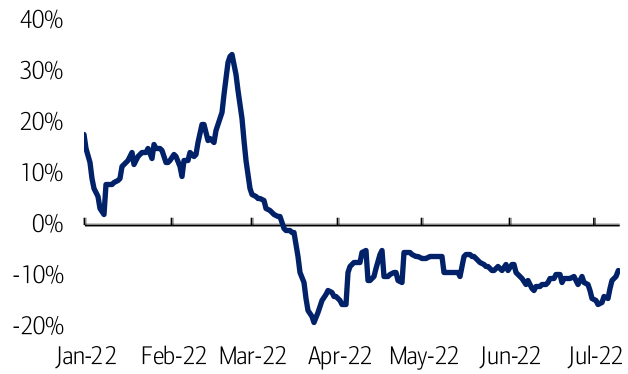
Source: Bank of America internal data.

Exhibit 7: Inventory to sales ratio: clothing stores (monthly, %, SA)
Inventory at clothing stores has been rising due to lower clothing demand and easing supply chain constraints



Source: Census Bureau. Shading means recessions

Exhibit 8: Spending at clothing stores, based on aggregated Bank of America card data (daily, %YoY, 7-day moving average)
Internal Bank of America card data suggests clothing spend improved slightly in early July on a %YoY basis though remained negative



Source: Bank of America internal data

Contributors

Anna Zhou

Economist, Bank of America Institute

Sources

Li Wei

Senior Vice President, Global Risk Analytics

Methodology

Selected Bank of America transaction data are used to inform the macroeconomic views expressed in this report and should be considered in the context of other economic indicators and publicly available information. In certain instances, the data may provide directional and/or predictive value. The data used are not comprehensive; they are based on aggregated and anonymized selections of Bank of America data and may reflect a degree of selection bias and limitations on the data available.

Bank of America credit/debit card spending per household include spending from active US households only. Only card holders making a minimum of five transactions a month are included in the dataset. Spending from corporate cards are excluded. Data regarding merchants who receive payments are identified and classified by the Merchant Categorization Code (MCC) defined by financial services companies. The data are mapped using proprietary methods from the MCCs to the North American Industry Classification System (NAICS), which is also used by the Census Bureau, in order to classify spending data by subsector. Spending data may also be classified by other proprietary methods not using MCCs.

Additional information about the methodology used to aggregate the data is available upon request.

Disclosures

These materials have been prepared by the Bank of America Institute and are provided to you for general information purposes only. The Bank of America Institute is a think tank dedicated to uncovering powerful insights that move business and society forward. Drawing on data and resources from across the bank and the world, the Institute delivers important, original perspectives on the economy, Environmental, Social and Governance (ESG) and global transformation. Unless otherwise specifically stated, any views or opinions expressed herein are solely those of the Bank of America Institute and any individual authors listed, and are not the product of the BofA Global Research department or any other department of Bank of America Corporation or its affiliates and/or subsidiaries (collectively Bank of America). The views in these materials may differ from the views and opinions expressed by the BofA Global Research department or other departments or divisions of Bank of America. Information has been obtained from sources believed to be reliable, but Bank of America does not warrant its completeness or accuracy. Views and estimates constitute our judgment as of the date of these materials and are subject to change without notice. The views expressed herein should not be construed as individual investment advice for any particular client and are not intended as recommendations of particular securities, financial instruments, strategies or banking services for a particular client. This material does not constitute an offer or an invitation by or on behalf of Bank of America to any person to buy or sell any security or financial instrument or engage in any banking service. Nothing in these materials constitutes investment, legal, accounting or tax advice.