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Sector Morsel

BofA corporate data sheds light on retail inventory

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Key takeaways

- We introduce the use of a Bank of America corporate dataset to provide an alternative measure of retail inventory through the lens of corporate payments. We believe this is particularly useful in understanding the supply chain disruptions that have beset retailers over recent years.
- Bank of America data showed a sharp rise in payments by US retailers to transportation and shipping companies in 2020-2021 as they sought to catch up to surging demand for goods during the pandemic by ramping up inventories, followed by a rapid reversal by late 2022/early 2023 as consumers pivoted back to services.
- Inventory is more in balance today, but some sectors like autos and clothing stores maintain leaner inventories than they historically have. Does this reflect lessons learned during the pandemic or continued supply challenges? We will keep monitoring the data for clearer signs.

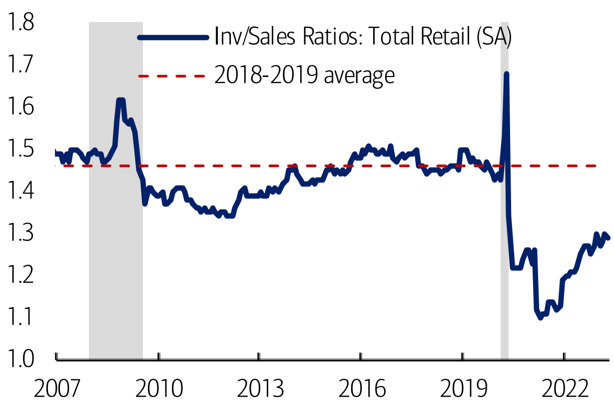
What happened to retail inventory during the pandemic?

Supply chain disruptions have been a big challenge for retailers in recent years. Pandemic-related lockdowns and fiscal stimulus led to soaring consumer spending on goods that left retailers and manufacturers unable to meet demand. The slow catch-up of supply led to a steep drawdown in retail inventory from mid-2020. By April 2021, the inventory-to-sales (I/S) ratio at retailers, seasonally adjusted (SA), according to data from the Census Bureau, dropped to just 1.1, compared with the 2018-2019 average of 1.46 (Exhibit 1). To mitigate such shortages, retailers increased their inventory orders from manufacturers. Moreover, given the delivery time delay as shipping companies were already operating at maximum capacity, retailers started to order way ahead of their selling season.

While survey data offers valuable insights, it is also important to look at the “hard data.” Here, we introduce the Bank of America corporate dataset, and use it to provide an alternative measure of retail inventory through the lens of corporate payments. This aggregated and anonymized data includes both small and large businesses and covers companies across different industries. For this publication’s analysis, we only focus on Bank of America corporate clients that are in the retail sector and based in the US.

Exhibit 1: Inventory to sales ratio: Total retail

By April 2021, inventory levels at retailers had dropped to historically low levels

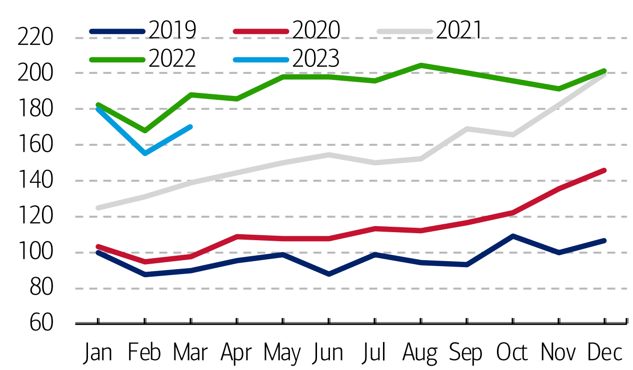


Source: Census Bureau

Note: Gray shaded areas indicate periods of economic recessions.

Exhibit 2: Payments volume per US retailer to shipping and transportation companies (index, Jan 2019 =100, data through March 2023)

Retailers’ payments to shipping companies started to increase noticeably by the end of 2020



Source: Bank of America internal data

As Exhibit 2 shows, retailers' payments to shipping companies started to increase noticeably toward the end of 2020 when the I/S ratio was dropping sharply. The biggest increase in such payments was seen in 2021 – by December of that year, they were twice as high as in December 2019.

We use corporate payments to shipping and transportation companies as a proxy for inventory orders given that retailers need to pay for their inventories' deliveries. Such payments are aggregated and anonymized in our analysis and are made through automated clearing houses (ACH), cards (debit cards or small business credit cards) and wires.

One nuance is that retailers might not be paying shipping companies in real time. Some might have an ongoing contract with these transportation companies where their freight rates are locked in ahead of time and the payments are made in a set time interval such as quarterly payments. Still, we believe the data provides directional value in understanding retail inventory orders.

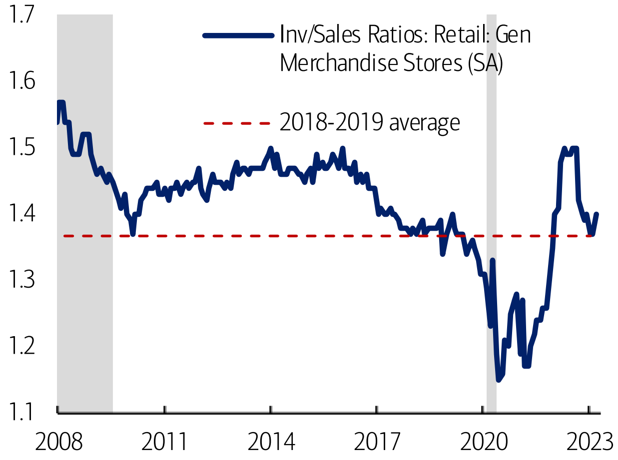
The problem of overstocking

Things quickly turned towards the end of 2022. Consumer demand for goods started to pull back as spending rotated to services and some retailers suddenly found themselves with excess inventory. Part of this could be due to inventory arriving late and out of season because of the order backlog. It could also be due to retailers overestimating consumer demand and not anticipating the fast rotation of spending to services.

This overstocking problem was particularly pronounced for big box retailers (i.e., general merchandise stores). As Exhibit 3 shows, the I/S ratio for general merchandise stores surged in 2022 to above historical norms. Note that for total retail, the I/S ratio remained below the 2018-19 average even in 2022, but that was heavily distorted by the auto sector. For all other sectors, such as department and furniture stores, I/S ratios in 2022 also rebounded to above 2018-19 averages.

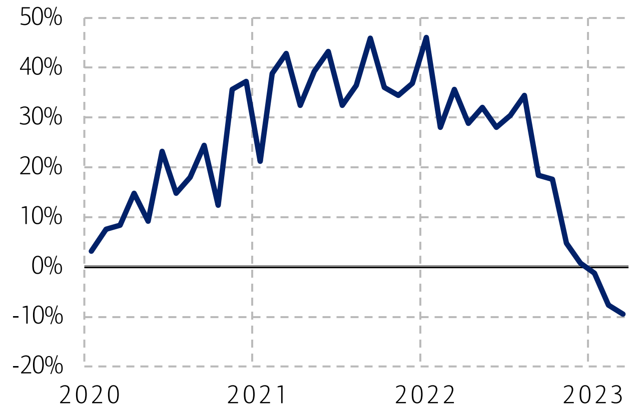
To adjust for this sudden pivot, retailers pulled back on their inventory orders. In Bank of America data the growth rate of retailers' payments to shipping and transportation companies has slowed noticeably since second half of 2022, even turning negative on a year-over-year (YoY) basis since the start of 2023. As of March 2023, retailers' payments to shipping companies were 9% lower than a year ago, down from the peak of 46% YoY in January 2022 (Exhibit 4).

Exhibit 3: Inventory to sales ratio: General merchandise stores (%)
I/S ratio for general merchandise stores surged in 2022 to above historical norms



Source: Census Bureau
Note: Gray shaded areas indicate periods of economic recessions.

Exhibit 4: Payments per US retailer to shipping and transportation companies (%YoY)
As of March 2023, retailers' payments to shipping companies were 9% lower than a year ago, down from the peak of 46% YoY in January 2022



Source: Bank of America internal data

Inventory fairly in balance now

Where do inventory levels stand right now? The latest Institute for Supply Management (ISM) survey showed that the customer inventory index was at 50.5 in May, suggesting that inventory levels are roughly in balance (note that a reading of 50 means breakeven levels).

However, there might be variances across retail subsectors. A recent article from the Richmond Fed stated that sectors such as autos and clothing stores continue to see lower inventory levels than in pre-pandemic years, while the opposite is true for general merchandise and building stores.

For those that now maintain leaner inventory, if inventories continued to fall at the same pace as we have seen in our corporate data over the start of 2023, it could be that some non-auto sectors may find their inventory levels relatively light compared to pre-pandemic levels. If some of this destocking proved involuntary because of supply chain stickiness, that could pose some

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upside risks to inflationary pressure and support a view that core inflation will be relatively sticky. We will closely monitor our corporate data for clearer signs in the coming months.

Methodology

Selected Bank of America transaction data is 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 is not comprehensive; it is 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.

All retailer clients are US-based. Corporate payments referenced in this report only include payments through automated clearing houses (ACH), cards (debit cards or small business credit cards) and wires from corporate clients with a deposit account, debit card or small business credit card.

Data regarding companies making or receiving payments are identified and classified by the North American Industry Classification System (NAICS) defined by Census Bureau. Specifically, Bank of America corporate clients that are in the retail sector include those in the following subsectors: Specialty Retail, Diversified Wholesalers, Food Products, and Multiline Retail. Shipping and Transpiration companies that receive such payments include those in the following subsectors: Air Freight & Logistics, Marine, Road & Rail, and Transportation Infrastructure.

Unless otherwise stated, data is not adjusted for seasonality, processing days or portfolio changes, and may be subject to periodic revisions.

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

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Sources

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Disclosures