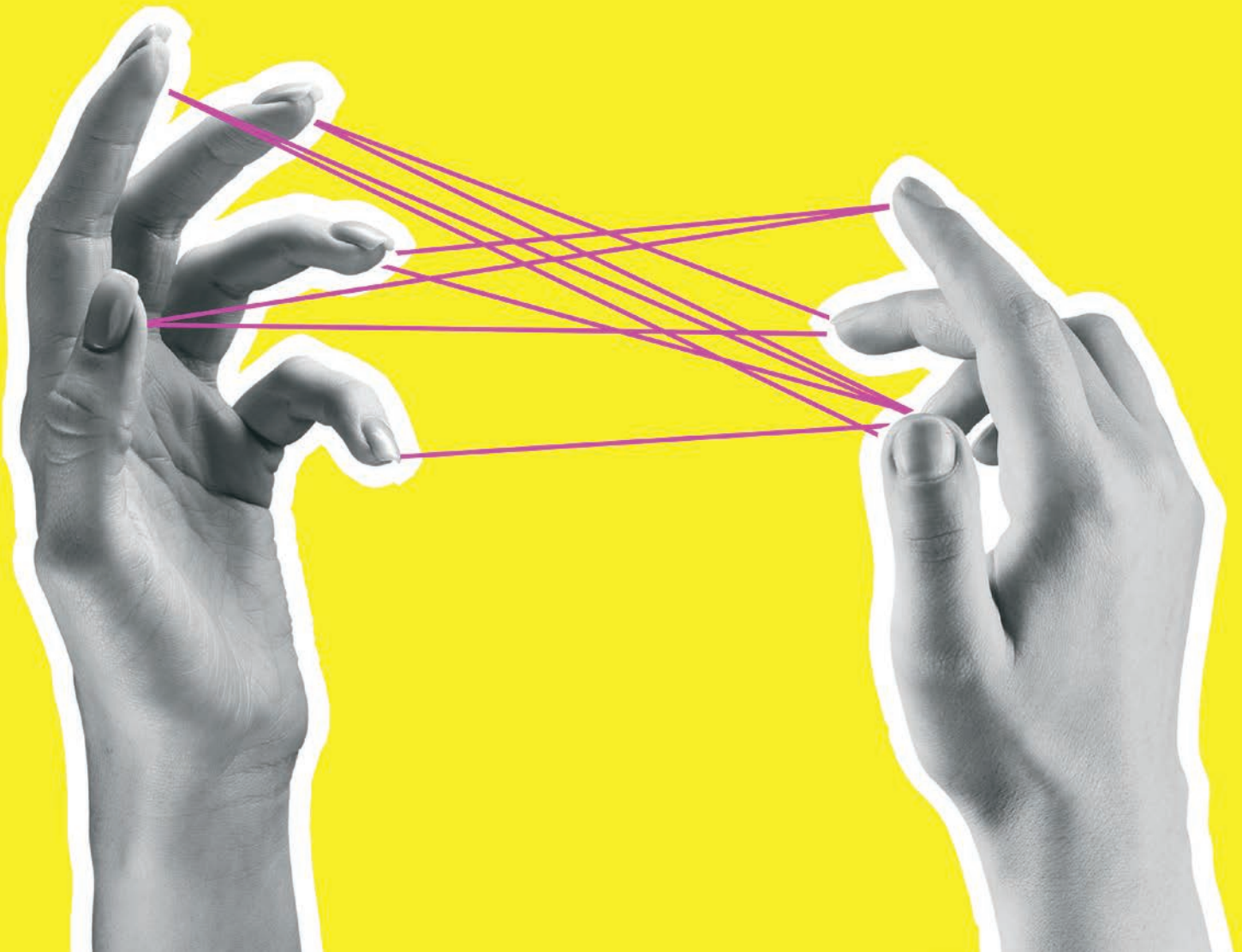


Global Supply Chains: Improving Conditions, but Vulnerabilities Remain

BY ALEX SUTTON

Alex Sutton of Gordon Brothers updates readers on the supply chain challenges that remain a concern.



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he COVID-19 pandemic and the resulting supply chain crisis are referred to by some as black swan events. Certainly, from a modern global historic perspective, the level of economic volatility realized as a result are unprecedented outside a time of world war. As we move into a post-COVID world (if we dare say), we find ourselves in a place much like the surface of the

ocean after a great storm, with swells, waves and winds originating from multiple directions. As much as we have experienced tumult and confusion since 2020, the sea is finally calming and, as rocky as it may still seem, the global supply chain is improving in several critical areas.

Key Supply Chain Metrics Improving

Port volumes and wait times have settled at close to 2019 levels, shipping rates have plummeted from record highs, and trucking prices and capacity availability have improved since 2021. A threatened rail strike that would have had devastating implications for the U.S. economy was averted by federal legislation in late 2022.¹ Inventory levels are normalizing across many sectors and the annual U.S. inflation rate, which peaked in 2021 at 7%, had receded to 6.4% by January 2023.² Additionally, many key commodity prices, including steel, had returned to more normal ranges as of early 2023. This general slowing of economic activity is allowing for a breathing period in many critically tight supply chain situations.

Despite the clear improvements, the impact of the supply chain tsunami still lingers as many inventories remain bloated, key parts shortages remain, labor shortages are impacting many companies' ability to ramp up, and it has been a struggle to recover gross margin points lost since 2020 in many industries.

Crisis Abating, but Challenges Remain

In the aftermath of what was a somewhat soft retail 2022 holiday season, the impacts of runaway inflation, a slowing economy, lower consumer sentiment, and shrinking consumer credit are casting a pall over 2023 expectations. December 2022 retail sales excluding energy were down 0.8%, with core retail segments including department stores, furniture and home furnishings, non-store retailers, electronics and appliance, and other miscellaneous retailers down 6.6%, 2.5%, 1.1%, 1.1% and 1.1% on a month-over-month basis, respectively.³ The January 2023 retail sales report was more positive, with a year-over-year recovery of 6.7% compared to January 2022, but still historically soft and lower than the January 2021 numbers by 11.9% after two years of heavy inflation. On a month-over-month basis results improved moderately with department stores, furniture and home furnishings, non-store retailers, electronics and appliance, and other miscellaneous retailers being up by 1.8%, 0.5%, 1.4%, 0.2% and 0.4% respectively compared to December 2022.⁴ The department store sector, despite this modest month-over-month increase, was ravaged at the beginning of the pandemic. Following a brief rebound, the sector is now seeing renewed weakness. Fourth quarter 2022 results

for Nordstrom, Inc. were softer than pre-pandemic levels, consistent with a marked weakness in the luxury sector.⁵ Macy's fourth-quarter results are also expected to come in below forecast.⁶

Despite the supply chain crisis abating, we live in a new world of higher interest rates and lower capital availability, which while helpful in curbing runaway inflation, will also likely constrain the new investment required to fix some of the effects of supply chain swings of the last few years. Investment in port infrastructure and a revamping of the entire port system will likely be needed to help mitigate future volatility.



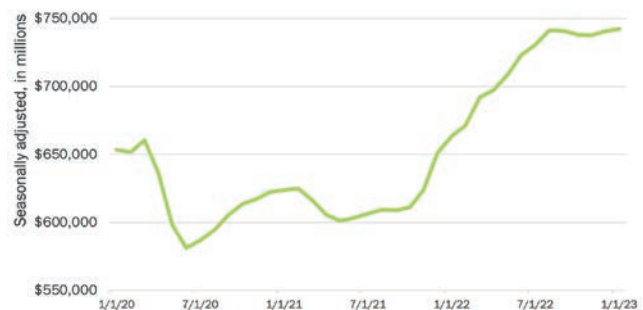
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Chart 1: Ports of Los Angeles & Long Beach



Source: Marine Exchange of Southern California

Chart 2: U.S. Retailer Inventories



Source: Federal Reserve Economic Data and U.S. Census Bureau

Many companies are considering nearshoring much of their supply chain, which will require new investment. Inventory levels remain higher across the board and are consuming higher levels of free capital. While one would expect at least the in-transit portion of this inventory increase to recede, a return to the "just-in-time"

mentality of managing all inventories on a hand-to-mouth basis will likely not occur in the near-term. The highest area of future capital requirements will likely be in technological investments. We are seeing elevated levels of investment in automotive, freight and energy, all businesses once considered mature, undergoing rapid renewed evolution and significant investment.

China's Impact on the Supply Chain

Added to the choppy surface of the ocean, China, after almost three full years of periodic lockdowns, shifted its epidemiological strategy in January 2023 and fully reopened its economy.⁷ While difficult to forecast, China's re-entry back into the world economy will likely alleviate supply situations in many beleaguered industries and assist in calming supply chain volatility.

China's GDP fell to 3% in 2022, its slowest rate of growth since 1976, excluding 2020 when growth only reached 2.2% at the height of the pandemic.⁸ Exports to the U.S. fell by 9.9% and 8.9% in November and December of 2022, respectively, the sharpest monthly drops since February and March of 2020. In addition, Section-301 tariffs

implemented in 2018 on Chinese imports of apparel, footwear, furniture and travel goods raised indirect and direct costs for U.S. companies, many of which were passed on in the form of higher prices for consumers. An industry study released in late January 2023 reports direct costs from Chinese tariffs totaled more than \$1 billion annually each for apparel and furniture imports, as well as nearly \$800 million for travel goods and over \$450 million for footwear in 2022 alone.⁹

Despite the bleak numbers, based on the recent actions of the Chinese government, The Organisation for Economic Co-operation and Development forecasts China's GDP growth at 4.6% for 2023, supported by expected sharp growth in the Chinese consumer economy as well as growth in services and exports.¹⁰

Asset Valuation Implications

During the supply chain crisis, valuation levels for consumer and industrial inventory were generally negatively affected as inventory levels rose, turnover slowed and gross margins in many industries failed to keep pace with input costs despite price increases levied on consumers. While Gordon Brothers expects these factors to subside in line with a calming supply chain, many of the impacts of the crisis still linger. As of early 2023, companies were seeing standard costs rise as companies

factor in the vendor price increases of the last two years and fully absorb them into cost structures. This is despite a significant decline in freight and commodity prices in the second half of 2022, which in many cases is being offset by higher labor cost and increasing energy and supplier costs. In the early part of 2023, the previously dormant retail liquidation space has become active, and we have seen some prominent bankruptcies emerge in the consumer space including Tuesday Morning, Party City and Auto Plus, as well as a host of store closings and other activity.

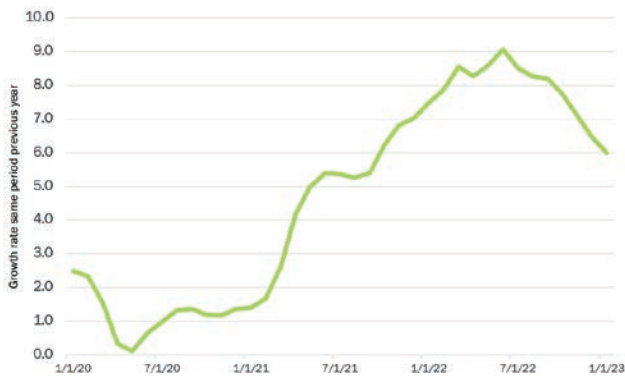
On the manufacturing side, we continue to see ongoing volatility and softness in select sectors. In the automotive sector, while metals, other

commodity prices and freight costs have reverted to near normal levels, average and standard costs are rising again in 2023. Although global automotive production levels were up 6.0% in 2022 bolstered by a positive global sales forecast for 2023, global light vehicle automotive sales declined again in 2022, down by 1.3% compared to 2021 levels. Although light vehicle production levels did increase, the original forecast of global light vehicle production levels reaching pre-pandemic levels in 2023, has been pushed back to 2025.¹¹ In the aviation sector, we are seeing many original equipment manufacturers raising part prices by 10% to 15% for 2023 despite similar adjustments in 2022. This comes despite an industry that, at least on the commercial side, has yet to recover fully to pre-pandemic demand levels. And not all commodity prices have fallen since 2021. Despite the softness in metal commodity prices and certain building products, agricultural inputs remained very strong in the



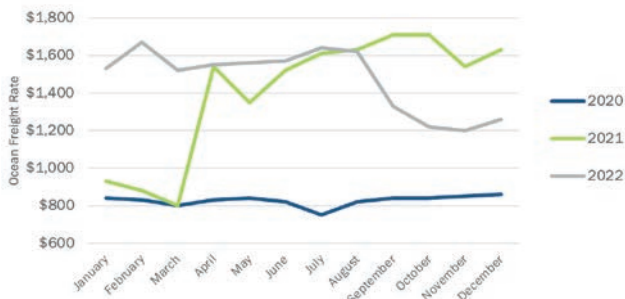
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Chart 3: Consumer Price Index: Total all Items for the U.S.



Source: Federal Reserve Economic Data

Chart 4: U.S. West Coast 40ft Container Rates




Los Angeles, CA to Shanghai, China 40' Container

first quarter of 2023 reflected in higher prices for fertilizer and related products.

Weakness in housing, the effect of higher interest rates and rising labor costs are weighing on the building products sector. Energy prices are forecasted to be strong in 2023, and the weakness in the Eurozone is supporting higher prices for chemicals and plastics as well as industrial machinery and supplies sourced from the region. The technology sector is enjoying a very high level of global investment currently as the supply chain crisis in relation to chip supply was one of the most heavily affected sectors. The supply chain ripples caused throughout 2021 and 2022 by chip shortages were among the most severe, affecting production levels of vehicles, consumer durables and a wide variety of other industrial products. Despite domestic investments to reshore production, the sector remains heavily vulnerable to future disruption due to the concentration of production supply which is heavily weighted to just a handful of countries including Taiwan, which currently accounts for 37% of the chip supply for computing production worldwide.¹²

Summary

Absent new turmoil in some other unimagined global event, it appears the supply chain crisis being a pretext for the world's problems is receding. To date, 2023 has been relatively calm from a supply chain perspective; however, the ripples and effects

of the last few years will be with us and impacting supply chain management and evolution for years to come. In the post-World War II era, the world's supply chains have evolved geometrically and become more global, intertwined, and complex. This trend will likely continue in the future as supply chain complexity increases leaving the door open for future storms. 

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¹ <https://www.reuters.com/world/us/biden-signs-bill-block-us-railroad-strike-2022-12-02/>

² <https://www.bls.gov/news.release/cpi.nr0.htm>
<https://www.usinflationcalculator.com/inflation/current-inflation-rates/#:~:text=The%20annual%20inflation%20rate%20for,ET.>

³ [https://www.census.gov/retail/sales.html#:~:text=Advance%20estimates%20of%20U.S.%20retail%20and%20food%20services%20sales%20for,0.7%20percent\)%20above%20December%202021.](https://www.census.gov/retail/sales.html#:~:text=Advance%20estimates%20of%20U.S.%20retail%20and%20food%20services%20sales%20for,0.7%20percent)%20above%20December%202021.)

⁴ <https://www.census.gov/retail/sales.html>
⁵ https://www.wsj.com/articles/nordstrom-holiday-sales-decline-as-shoppers-tighten-belts-11674170147?mod=Searchresults_pos2&page=1

⁶ <https://www.cnn.com/2023/01/06/macys-cuts-holiday-quarter-forecast-citing-squeeze-on-shoppers-wallets.html>

⁷ <https://www.reuters.com/world/china/china-reopens-borders-final-farewell-zero-covid-2023-01-08/>

⁸ <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=CN>

⁹ https://www.supplychaindive.com/news/china-tariffs-costs-importers-and-consumers/640969/?utm_source=Sailthru&utm_medium=email&utm_campaign=Issue:%202023-01-24%20Supply%20Chain%20Dive%20%5Bissue:47500%5D&utm_term=Supply%20Chain%20Dive

¹⁰ <https://www.oecd.org/economy/china-economic-snapshot>

¹¹ <https://www.spglobal.com/mobility/en/research-analysis/fuel-for-thought-sp-global-mobility-forecasts-836m-units.html#:~:text=Production%20recovery%20momentum%20eases%20for%202023&text=For%202023%2C%20S%26P%20Global%20Mobility,%25%2C%20to%2085.0%20million%20units.>

¹² <https://www.forbes.com/sites/stevebanker/2023/02/17/the-worlds-most-vulnerable-supply-chain-impacts-all-supply-chains/?sh=6d2dd0c34cd6>