

Auto Inventories Monthly Insight

Inventory shrinks following strong December sales

Industry Overview

December auto inventory down 31k units MoM

Total auto inventory at the end of December 2023 decreased 31k units from November 2023 to ~2.30mm. Although the rise in inventories paused in December, recall that inventories climbed the last two years and are now up 140% off the September 2021 trough. Almost all of the MoM decline in absolute inventory was driven by the Japanese (-42k) and Korean OEMs (-9k), while the D3 posted higher inventory (+14k), likely due to some restocking of models affected by the UAW strike in late 2023. Inventory for European OEMs grew (+6k). On a days' supply (DS) basis, inventory stood at 46DS, which is a bit above the five-year average of 45DS, but down one day MoM. Recall that the December inventory decline came in light of robust December sales, which were up MoM on a SAAR basis to 15.8mm ([see our Auto Sales Monthly report](#)).

Supply gradually approaching normalized levels (2.5-3mm)

Inventory remains somewhat lower than "normal" levels of 2.5mm-3.0mm+ units, but is gradually approaching this range. In 2023, as production constraints faded, both sales and inventory started to recover after years in which low inventory impaired sales. Over the last few months sales volume has stabilized at a SAAR in the mid 15mm unit range while inventory has continued to grow. As we see autos as capital goods that periodically need to be replaced, we believe there is still substantial unfulfilled demand following the last few years of shortages. In the near-term, affordability could represent an obstacle for stronger demand to materialize. With climbing inventory and flat sales, pricing strength also looks more at risk. On a more positive note, recall that OEMs continue to manage inventory to match demand, as evidenced by production downtime taken this year. We consider this positive, as it helps to sustain prices.

Cycle timing now favorable, expect healthy recovery L-T

The depressed volume environment over the last few years has built pent-up demand, which should create a robust capital goods replacement cycle for a multi-year recovery.

Exhibit 1: December 2023 Inventory

December inventory was ~2.30mm units, with days' supply of 46 above the 5-year avg. of 45

	Inventory Units	Days Supply	5-yr Avg DS	% Above /Below	Note
Detroit 3 -- Cars	105,918	79	53	49%	Detroit 3 OEM's total inventory was up 14k MoM and increased 225k units YoY. Aggregate supply remains less constrained than the industry average across both cars and light trucks.
Detroit 3 -- Lt Trucks	1,177,308	64	59	8%	
Detroit 3 -- Total	1,283,226	65	59	12%	
Japanese -- Cars	168,964	34	38	-11%	Supply at Japanese OEMs was down 43k MoM but increased 276k units YoY. Aggregate supply is more constrained than the industry average across both cars and light trucks.
Japanese -- Lt Trucks	455,554	35	36	-2%	
Japanese -- Total	624,518	35	36	-5%	
European -- Cars	58,663	45	46	-2%	European OEM's inventory was up 6k units MoM and increased 68k units YoY. Aggregate supply is less constrained than the industry average across both cars and light trucks.
European -- Lt Trucks	166,701	52	47	11%	
European -- Total	225,364	50	47	6%	
Korean -- Cars	32,604	20	31	-36%	Inventory at Korean OEMs declined 9k units MoM but increased 56k units YoY. Both car and truck inventories remain well below the industry average.
Korean -- Lt Trucks	98,044	26	36	-27%	
Korean -- Total	130,648	24	34	-28%	
Industry -- Cars	370,289	37	38	-4%	Total inventory was down 31k units MoM, but up 631k units YoY. Car supply tighter than light truck, as OEMs continue to prioritize production and inventory build of high ASP/margin vehicles.
Industry -- Lt Trucks	1,931,067	48	48	0%	
Industry -- Total	2,301,356	46	45	0%	

Source: WardsAuto InfoBank, BofA Global Research

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We track industry inventories by calculating the days' supply (DS) based on a trailing 12-month average daily selling rate. Using the 12-month average reduces volatility in the days' supply number following a very strong (weak) sales month.

Wards inventory measurement includes dealer inventory and vehicles in transit to dealers.

Abbreviations:

ASP: Average selling price

D3: Detroit 3 automakers

DS: Days' supply

L-T: Long-term

OEM: Original equipment manufacturer

SAAR: Seasonally adjusted annualized rate

SUV: Sport utility vehicle

UAW: United Auto Workers

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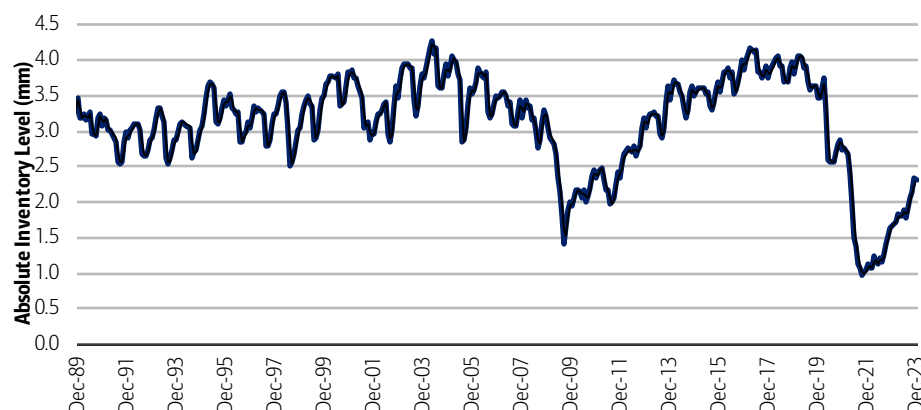
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Industry Inventories

Exhibit 2: US absolute inventory level (mm)

Total automotive inventory at the end of December 2023 declined 31k units from November 2023, to ~2.30mm units. This translates into days' supply of 46DS, which is above the five-year average of 45DS.

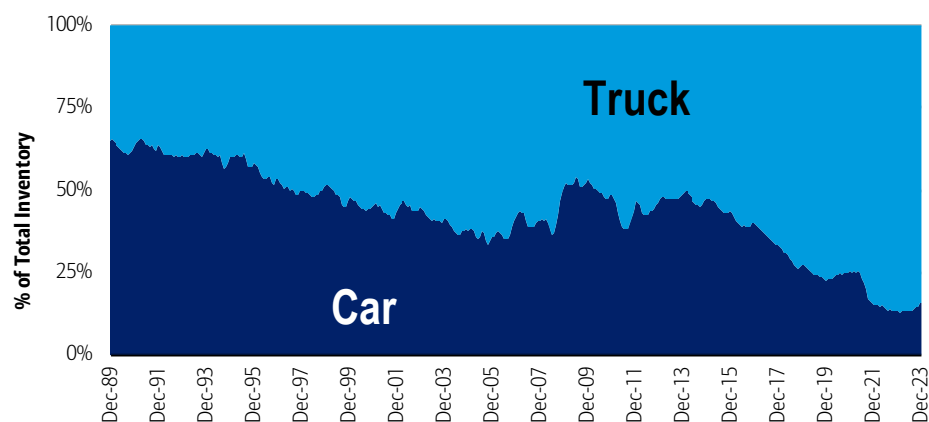


Source: WardsAuto InfoBank

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Exhibit 3: US inventory mix – % of total inventory

OEMs have prioritized higher-mix/margin vehicles for production, and as such, inventory mix has moved heavily towards light trucks. Passenger cars are beginning to take back share as production for those vehicles recovers.

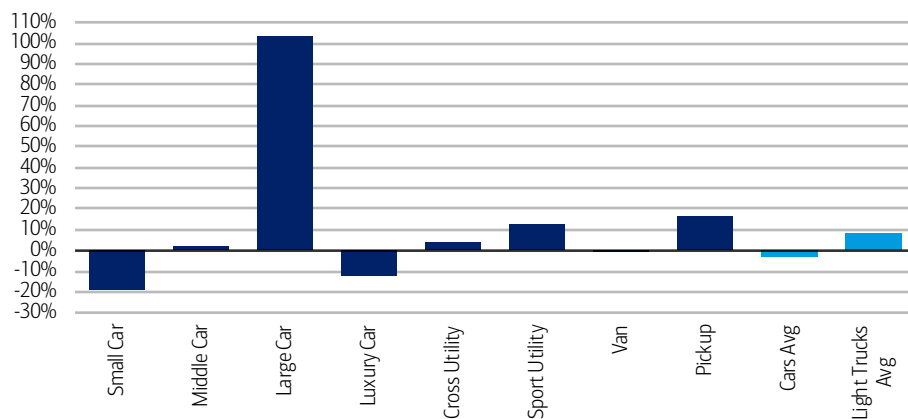


Source: WardsAuto InfoBank

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Exhibit 4: US automotive inventory % above/below average, by vehicle segment – Dec. 2023

Supply shortages have eased and inventory for Mid/Large Cars, CUVs, SUVs & Pickups have recovered



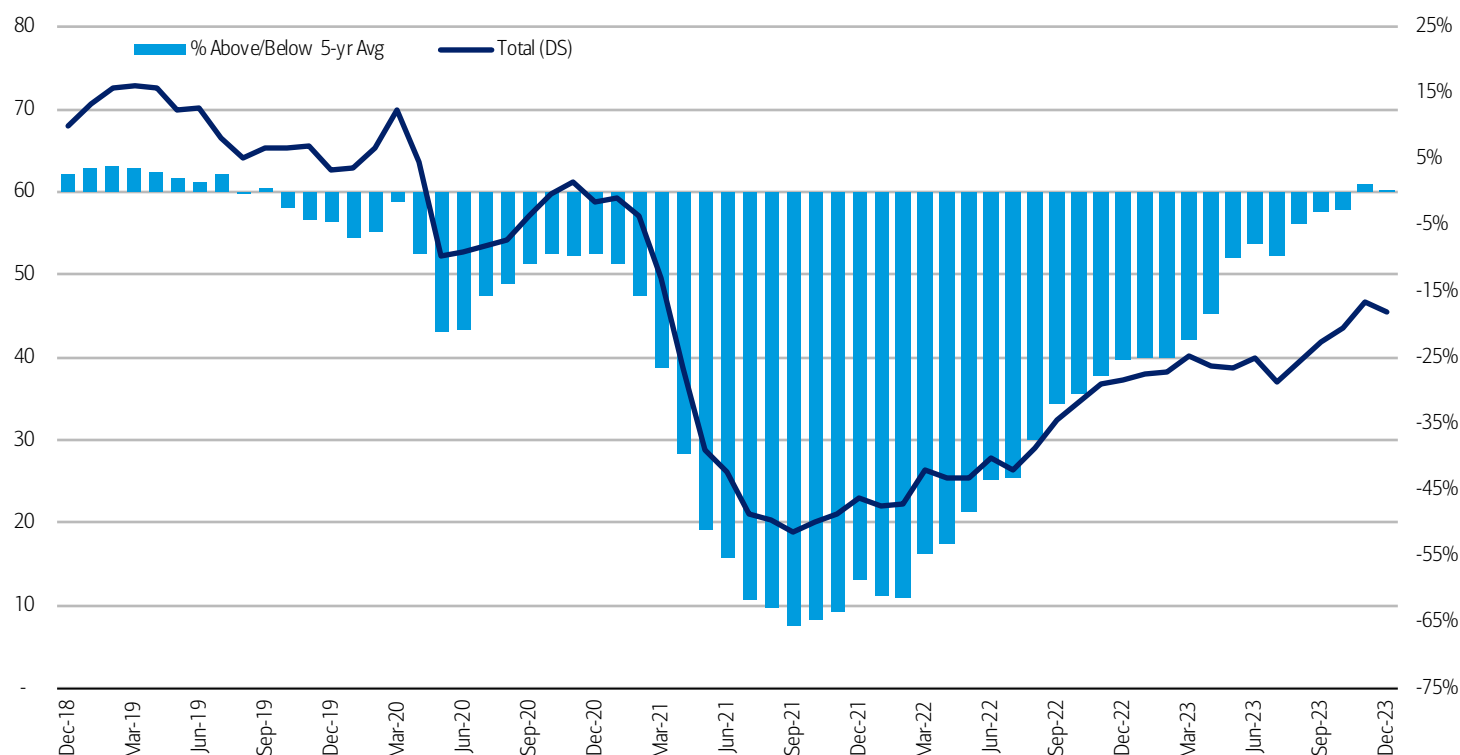
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Total Inventories

Exhibit 5: Industry Inventories – Total (DS)

December industry total days' supply is above the 5-year historical average but was down 1 day MoM to 46 days from 47 in November 2023

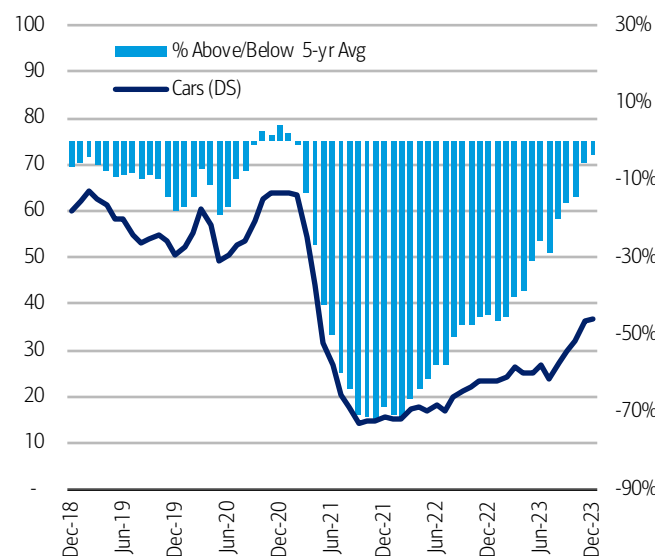


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Exhibit 6: Industry Inventories – Cars (DS)

December industry car days' supply is below the 5-year historical average and was up 1 day MoM to 37 days from 36 in November 2023

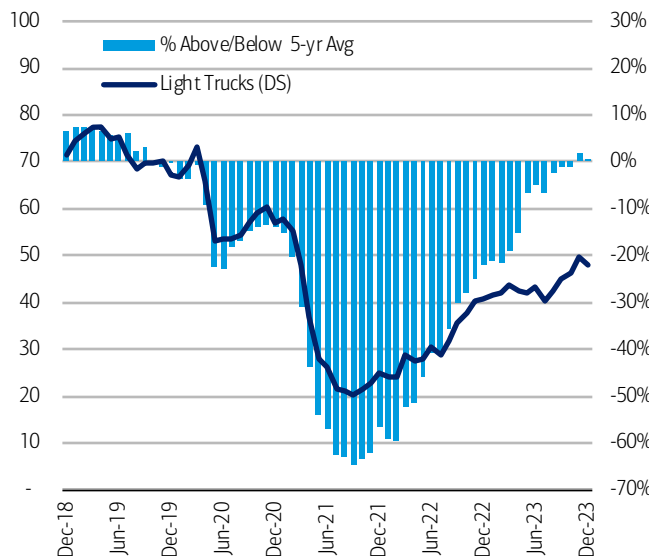


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Exhibit 7: Industry Inventories – Light Trucks (DS)

December industry light truck days' supply is above the 5-year historical average and was down 2 days MoM to 48 days from 50 days in Nov. 2023.



Source: WardsAuto InfoBank

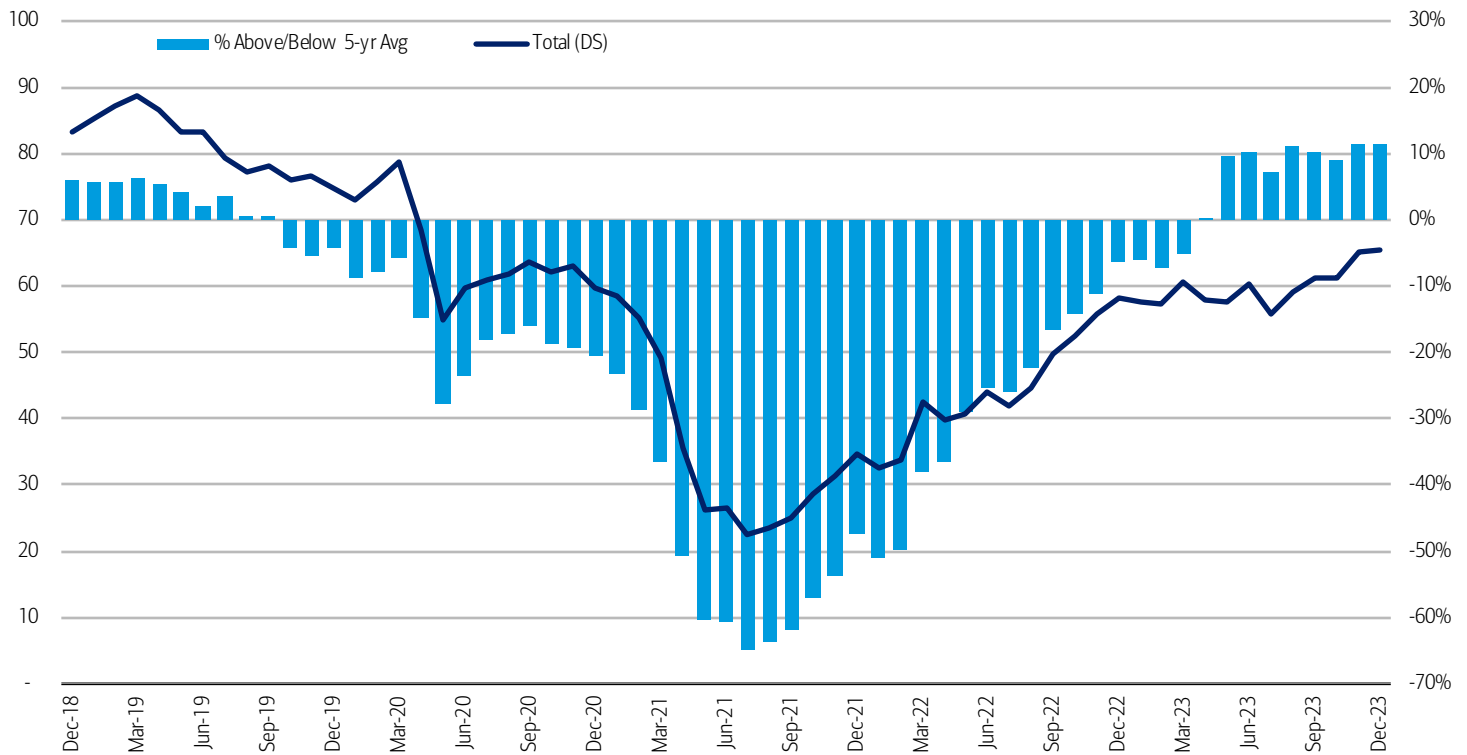
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Detroit 3 Inventories

Exhibit 8: Detroit 3 (D3) Inventories – Total (DS)

December Detroit 3 days' supply is above the 5-year historical average and was flat MoM at 65 days from 65 in November 2023

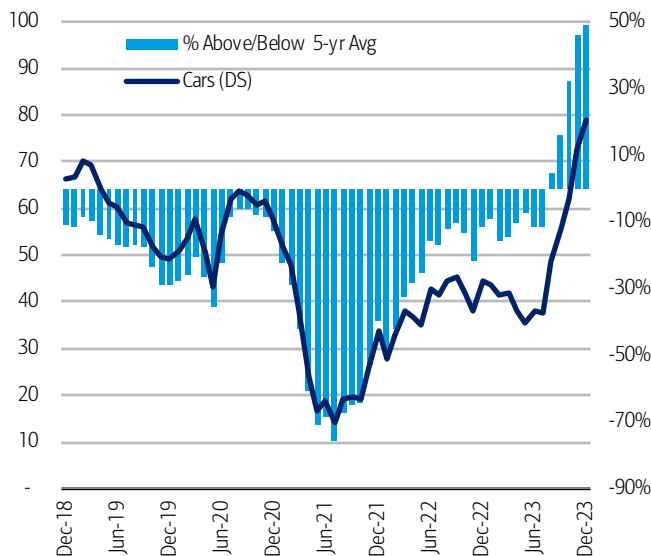


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Exhibit 9: Detroit 3 Inventories – Cars (DS)

December D3 car days' supply is above the 5-year historical average and was up 6 days MoM to 79 days from 73 in November 2023

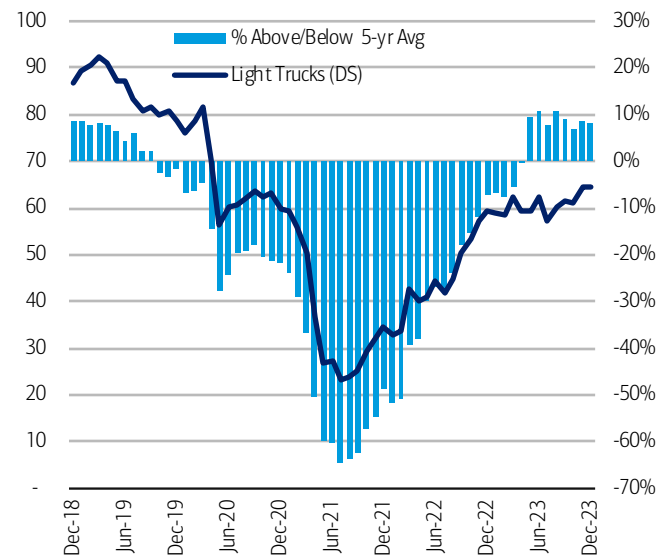


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Exhibit 10: Detroit 3 Inventories – Light Trucks (DS)

December D3 light truck days' supply is above the 5-year historical average and was down 1 day MoM to 64 days from 65 in November 2023



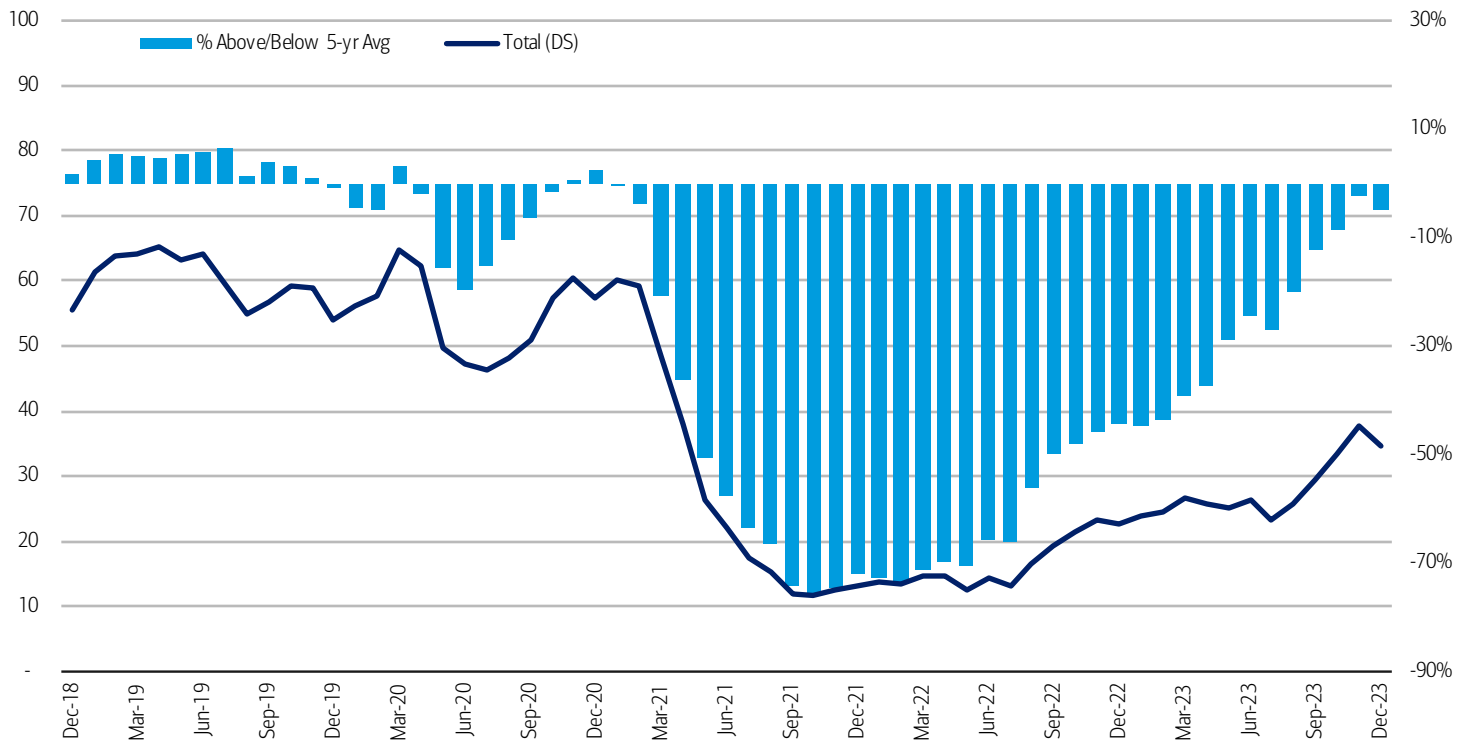
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Japanese Inventories

Exhibit 11: Japanese Inventories – Total (DS)

December Japanese days' supply came in below the 5-year historical average and declined 3 days on a MoM basis from 38 in November 2023 to 35 in December 2023

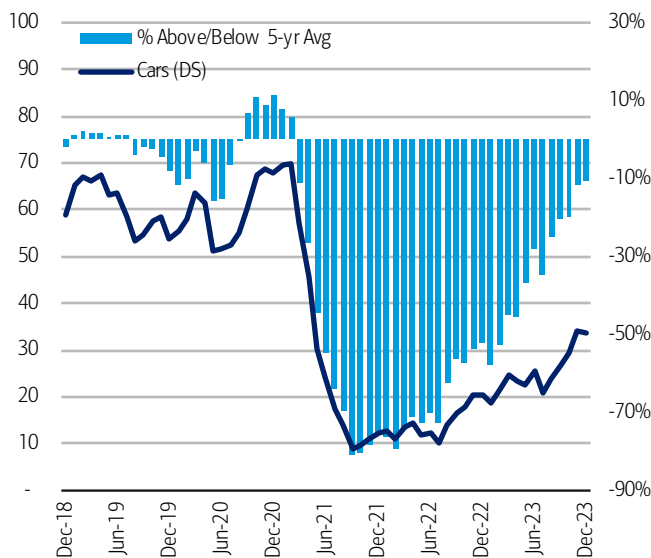


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Exhibit 12: Japanese Inventories – Cars (DS)

December Japanese car days' supply is below the 5-year historical average and was flat MoM at 34 days from 34 in November 2023

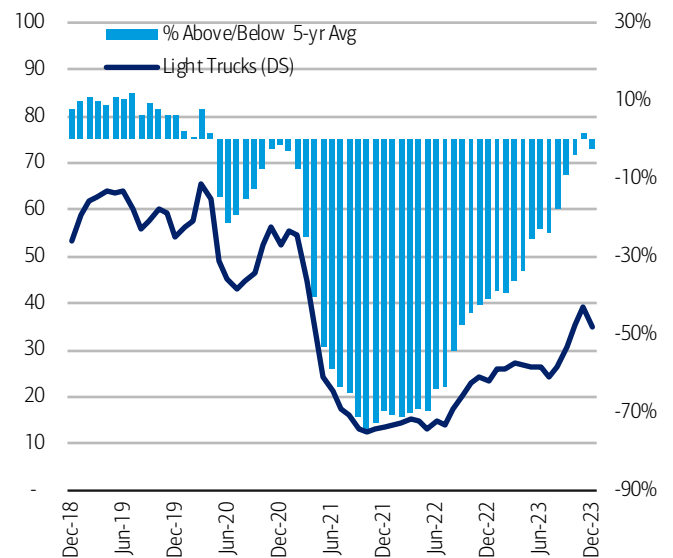


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Exhibit 13: Japanese Inventories – Light Trucks (DS)

December Japanese light truck days' supply is below 5-year average and was down 4 days MoM to 35 days from 39 in November 2023



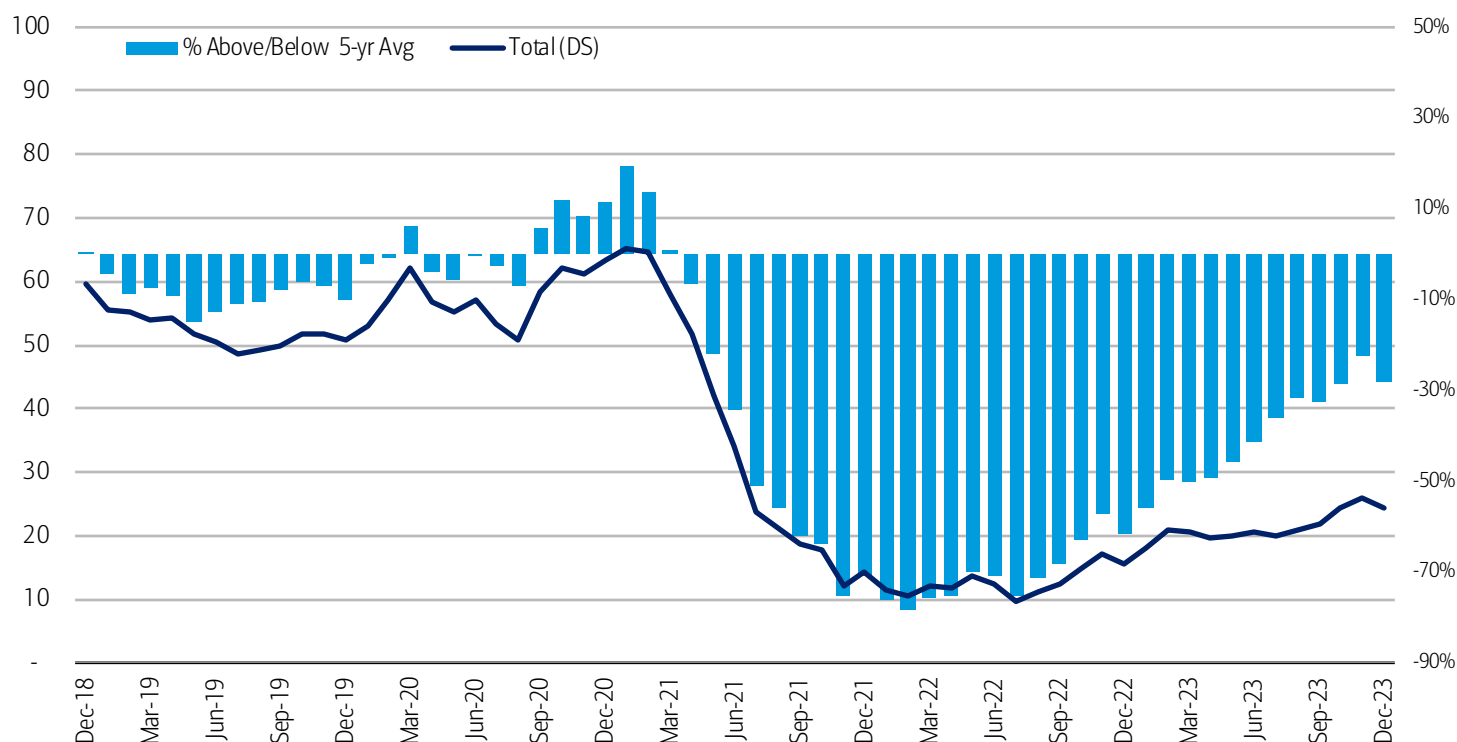
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Korean Inventories

Exhibit 14: Korean Inventories – Total (DS)

December Korean days' supply is below the 5-year historical average and was down 2 days MoM to 24 days from 26 days in November 2023

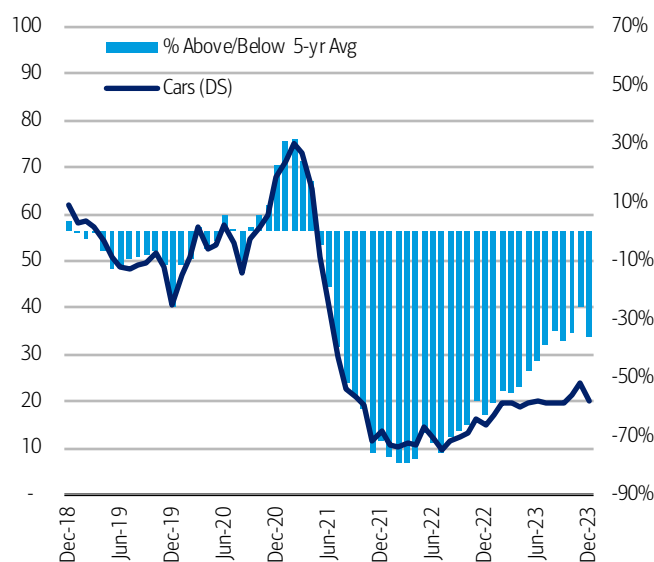


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Exhibit 15: Korean Inventories – Cars (DS)

December Korean car days' supply is below the 5-year historical average and was down 4 days MoM to 20 days from 24 days in November 2023

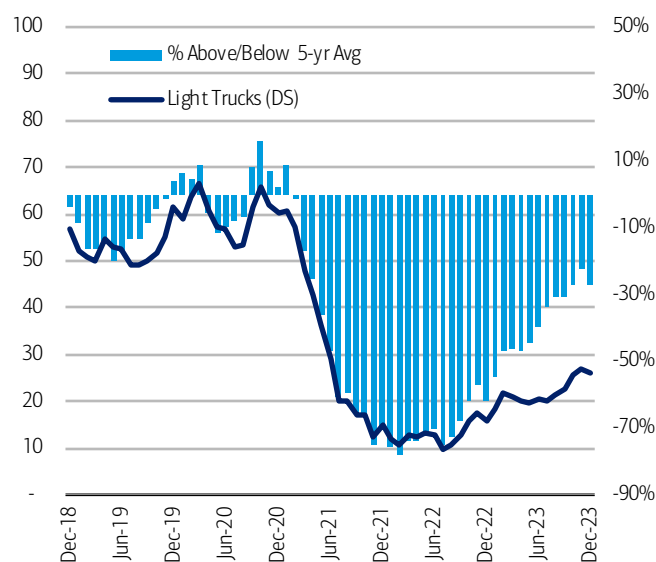


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Exhibit 16: Korean Inventories – Light Trucks (DS)

December Korean light truck days' supply is below the 5-year historical average and was down 1 day MoM to 26 days from 27 in November 2023



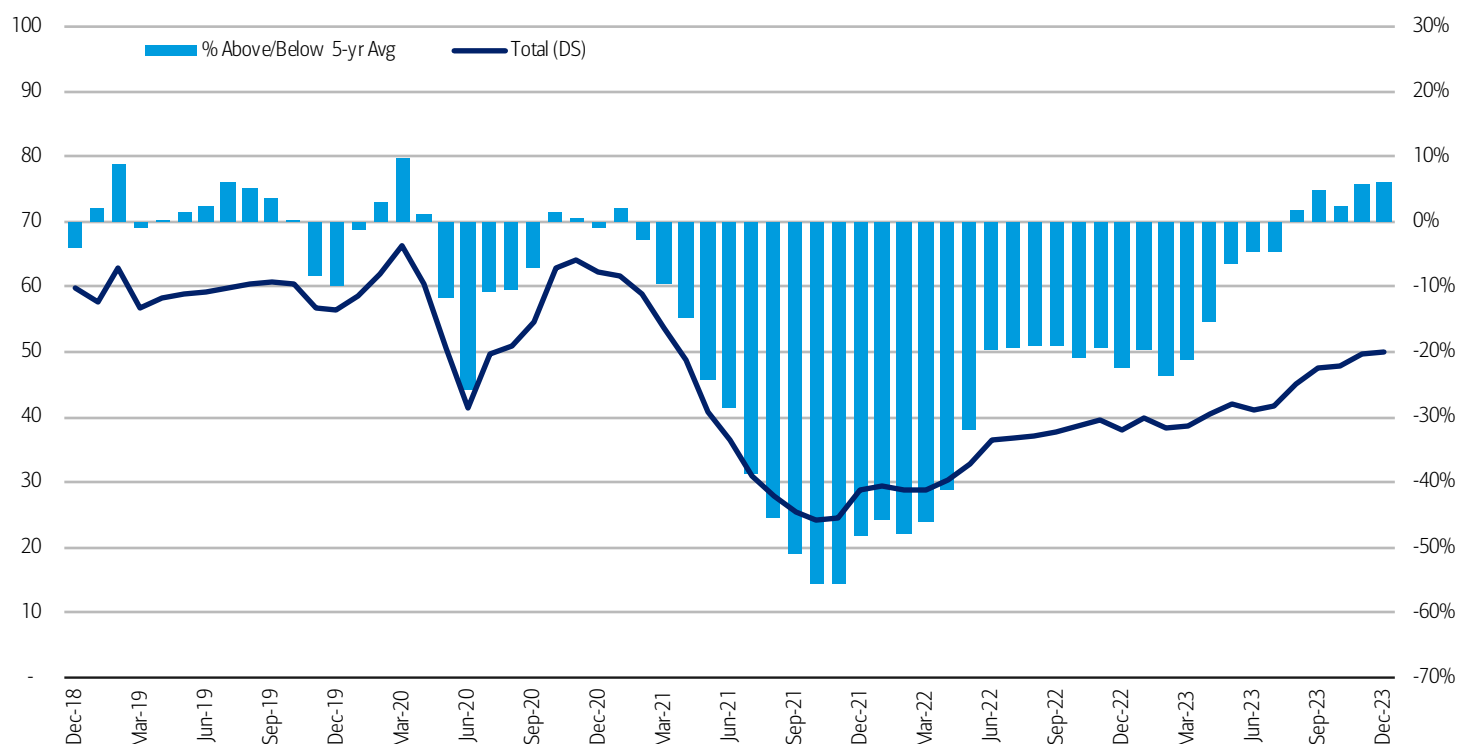
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European Inventories

Exhibit 17: European Inventories – Total (DS)

December European days' supply is above the 5-year historical average and was flat on a MoM basis at 50 in December 2023

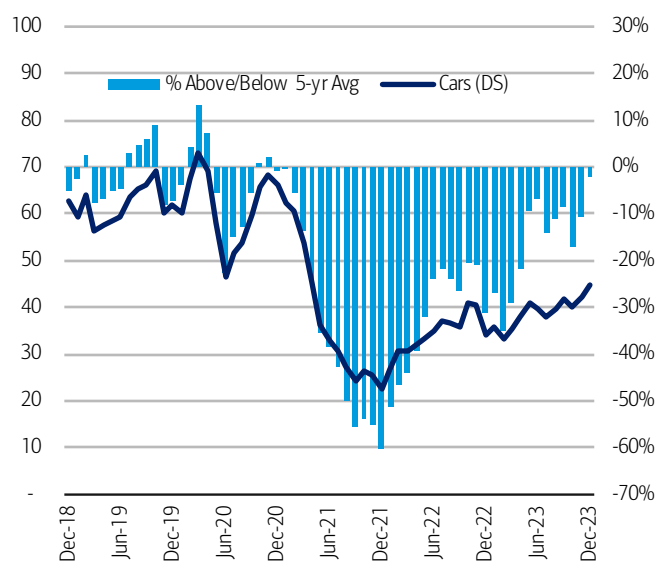


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Exhibit 18: European Inventories – Cars (DS)

December European car days' supply is below the 5-year historical average and was up 3 days MoM from 45 in November to 42 in December 2023

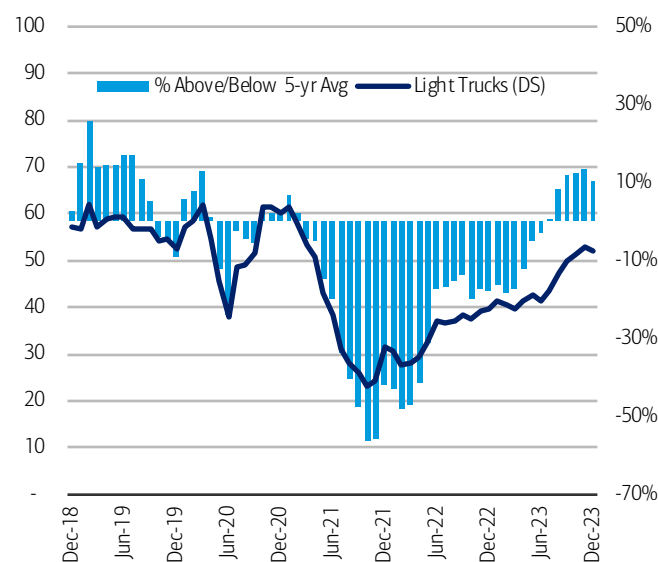


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Exhibit 19: European Inventories – Light Trucks (DS)

December European light truck days' supply is above the 5-year historical average and was down 1 day MoM to 52 days from 53 in November 2023



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