BofA SECURITIES

Auto Sales Monthly

January SAAR of 15.0mm marks a cold start to 2024, but thaw should come

Industry Overview

02 February 2024

Equity
United States
Autos/Car Manufacturers

January SAAR of 15.0mm, down 1.3% YoY

January US light vehicle sales decreased 1.3% YoY (selling day [SD] adjusted) for a seasonally adjusted annualized rate (SAAR) of 15.0mm, a notable decline from the 15.8mm SAAR in December. This was also well below our mid-month estimate of 15.7mm, and the Bloomberg consensus of 15.7mm. January's performance equates to an unadjusted volume increase of 2.8% YoY, but down -26% MoM from December 2023. We'd note that January is historically one of the smallest months of the year in terms of volume, and we believe wet and wintry weather across the US weighed on auto demand. Despite the slow start, we continue to forecast US auto sales of 16.1mm in 2024, although some risks persist, which include macro uncertainty, inflation, elevated rates, weak (but improving) consumer confidence, and a potential US recession.

Expect further growth in US auto sales in 2024+

In 2023, US sales grew solidly to 15.5mm (+12.5% YoY) as supply chain disruptions dissipated and the economy remained relatively robust. We expect a further uptick in 2024 to 16.1mm (+4% YoY) and project sales will continue to build towards the next peak in the US auto cycle in 2028 (17-18mm range). Sales growth should benefit from the release of pent-up demand following Covid-related production constraints. Additionally, fleet sales and a return in mass market sales are other incremental drivers.

Mix remains strong, ATPs fall while incentives climb

Mix continues to trend favorably for automakers. Year-to-date, light trucks (pickups, SUVs, CUVs) gained +30bp of market share from passenger cars relative to the same period last year. December average transaction price (ATP) data from Kelley Blue Book showed pricing down -2.4% YoY to $48,759 (-$1,180/unit). December incentives were +101% YoY and were +6% MoM to $2,687/unit. Incentive spending in December was 5.5% of ATPs vs. 2.7% in December 2022, still well below 2019 levels of ~10%.

Japanese OEM industry outperformance continues, D3 lag

On a SD adjusted basis, Japanese, Other and European OEMs outperformed the industry in January, with sales +9% YoY, +7% YoY, and +1% YoY respectively. The Detroit Three (D3) and Korean OEMs lagged the industry at -10% YoY and -8% YoY respectively.

Growth in Hybrids outpaces Electric Vehicles

Alternative powertrain vehicles continue to take share from ICE vehicles, gaining +400bp YoY. Within the Alternative powertrain segment, Hybrids grew faster than EVs. Combined Hybrid/PHEV penetration gained +360bp YoY from 7.2% to 10.8% while EV penetration gained +40bp YoY from 7.0% to 7.4%. At the OEM level Tesla continues to hold dominant EV market share, gaining +270bp YoY from 53.9% to 56.6%. The Detroit Three, European and Japanese OEMs lost EV market share, declining -220bp YoY, -260bp YoY and -80bp YoY respectively, while the Korean OEMs gained +150bp YoY.

John Murphy, CFA
Research Analyst
BofAS
+1 646 855 2025
johnj.murphy@bofa.com

John P. Babcock
Research Analyst
BofAS
+1 646 743 0046
john.p.babcock@bofa.com

Federico Merendi
Research Analyst
BofAS
+1 646 556 2798
federico.merendi@bofa.com

William Healey
Research Analyst
BofAS
+1 646 855 5747
william.healey2@bofa.com

Exhibit 1: January 2024 sales results
Jan. sales -1.3% YoY for 15.0mm SAAR

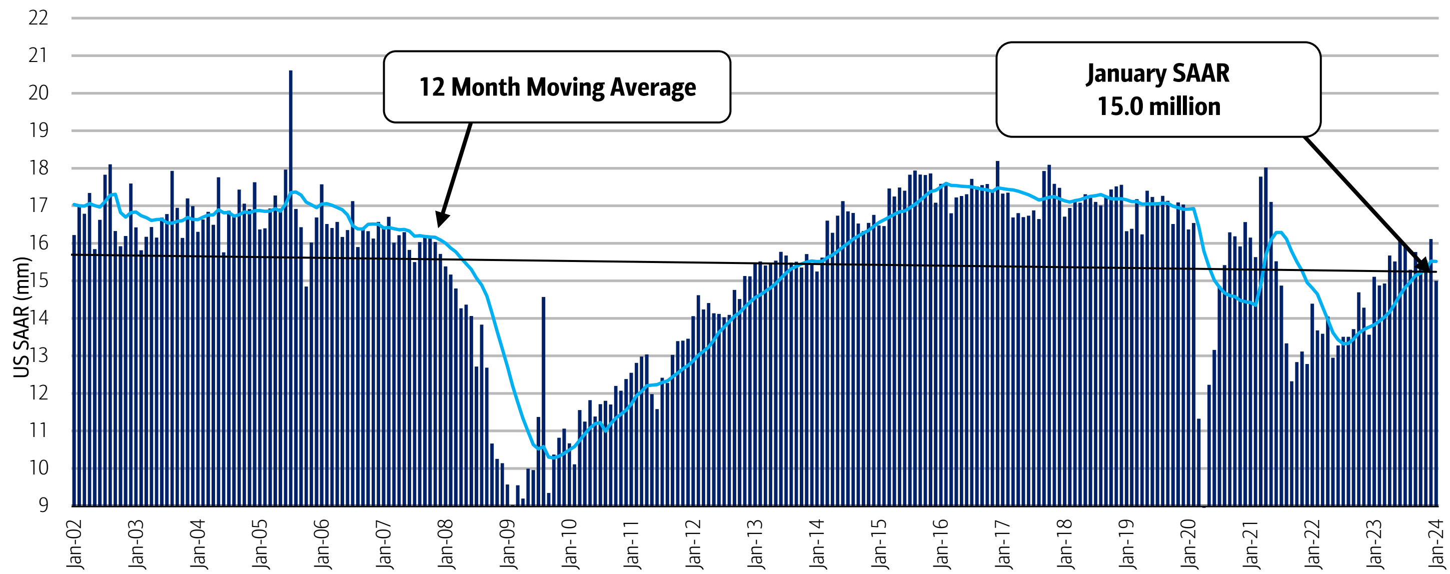
	Total Vehicles		
	2024	2023	%Δ*
January UNITS:			
Detroit Three	408,265	434,606	-9.8%
Europeans	99,817	94,598	1.3%
Japanese	399,962	351,641	9.2%
Koreans	102,903	107,889	-8.4%
Others	65,100	58,185	7.4%
Total	1,076,047	1,046,919	-1.3%
ANNUAL RATE (Millions)	**15.0**	**15.1**	**-0.7%**
MARKET SHARE:			
Detroit Three	37.9%	41.5%	(3.6)
Europeans	9.3%	9.0%	0.2
Japanese	37.2%	33.6%	3.6
Koreans	9.6%	10.3%	(0.7)
Others	6.0%	5.6%	0.5

Source: WardsAuto InfoBank
*%Δ refers to selling day adjusted
BofA GLOBAL RESEARCH

Abbreviations:
SUV: Sport utility vehicle
CUV: Crossover utility vehicle
OEM: Original equipment manufacturer
ICE: Internal combustion engine
SAAR: Seasonally adjusted annual rate
PHEV: Plug-in Hybrid Electric Vehicle

Exhibit 2: Seasonally Adjusted Annual Rate (SAAR)

January US light vehicle sales were down 1.3% YoY on a SD-adjusted basis for a SAAR of 15.0mm, which is below the 12 month moving average



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 3: US vehicle sales and market share: current month and 2024 YTD

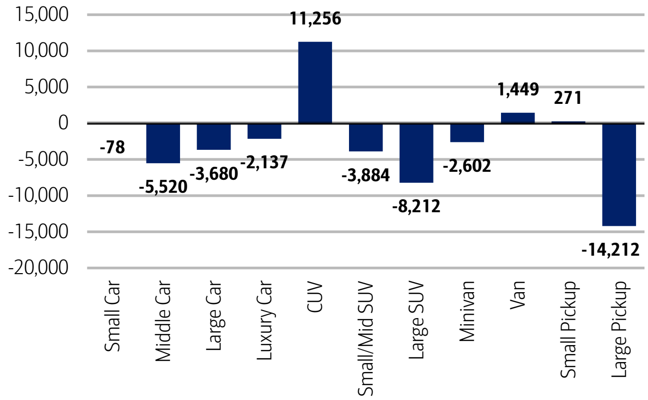
US January unit sales decreased 1.3% YoY on a SD-adjusted basis, with car sales down 2.7% YoY and light truck sales down 1.0% YoY

		Cars			Light Trucks			Total Vehicles		
		2024	2023	%Δ*	2024	2023	%Δ*	2024	2023	%Δ*
January	**January UNITS:**									
	Detroit Three	23,891	35,306	-35.0%	384,374	399,300	-7.6%	408,265	434,606	-9.8%
	Europeans	30,193	28,505	1.7%	69,624	66,093	1.1%	99,817	94,598	1.3%
	Japanese	113,629	95,105	14.7%	286,333	256,536	7.2%	399,962	351,641	9.2%
	Koreans	28,686	33,767	-18.4%	74,217	74,122	-3.9%	102,903	107,889	-8.4%
	Others	16,681	17,551	-8.8%	48,419	40,634	14.4%	65,100	58,185	7.4%
	Total	213,080	210,234	-2.7%	862,967	836,685	-1.0%	1,076,047	1,046,919	-1.3%
	ANNUAL RATE (Mils.)	3.0	3.1	-1.5%	12.0	12.1	-0.5%	15.0	15.1	-0.7%
	CAR/TRUCK MIX (%):	19.8%	20.1%	(0.3)	80.2%	79.9%	0.3	100.0%	100.0%	
	MARKET SHARE:									
	Detroit Three	11.2%	16.8%	(5.6)	44.5%	47.7%	(3.2)	37.9%	41.5%	(3.6)
	Europeans	14.2%	13.6%	0.6	8.1%	7.9%	0.2	9.3%	9.0%	0.2
	Japanese	53.3%	45.2%	8.1	33.2%	30.7%	2.5	37.2%	33.6%	3.6
	Koreans	13.5%	16.1%	(2.6)	8.6%	8.9%	(0.3)	9.6%	10.3%	(0.7)
	Others	7.8%	8.3%	(0.5)	5.6%	4.9%	0.8	6.0%	5.6%	0.5
YTD 2024	**YTD 2024 UNITS:**									
	Detroit Three	23,891	35,306	-35.0%	384,374	399,300	-7.6%	408,265	434,606	-9.8%
	Europeans	30,193	28,505	1.7%	69,624	66,093	1.1%	99,817	94,598	1.3%
	Japanese	113,629	95,105	14.7%	286,333	256,536	7.2%	399,962	351,641	9.2%
	Koreans	28,686	33,767	-18.4%	74,217	74,122	-3.9%	102,903	107,889	-8.4%
	Others	16,681	17,551	-8.8%	48,419	40,634	14.4%	65,100	58,185	7.4%
	Total	213,080	210,234	-2.7%	862,967	836,685	-1.0%	1,076,047	1,046,919	-1.3%
	ANNUAL RATE (Mils.)	3.0	3.1	-1.5%	12.0	12.1	-0.5%	15.0	15.1	-0.7%
	CAR/TRUCK MIX (%):	19.8%	20.1%	(0.3)	80.2%	79.9%	0.3	100.0%	100.0%	
	MARKET SHARE:									
	Detroit Three	11.2%	16.8%	(5.6)	44.5%	47.7%	(3.2)	37.9%	41.5%	(3.6)
	Europeans	14.2%	13.6%	0.6	8.1%	7.9%	0.2	9.3%	9.0%	0.2
	Japanese	53.3%	45.2%	8.1	33.2%	30.7%	2.5	37.2%	33.6%	3.6
	Koreans	13.5%	16.1%	(2.6)	8.6%	8.9%	(0.3)	9.6%	10.3%	(0.7)
	Others	7.8%	8.3%	(0.5)	5.6%	4.9%	0.8	6.0%	5.6%	0.5

Source: WardsAuto InfoBank; * Note: Selling day adjusted

BofA GLOBAL RESEARCH

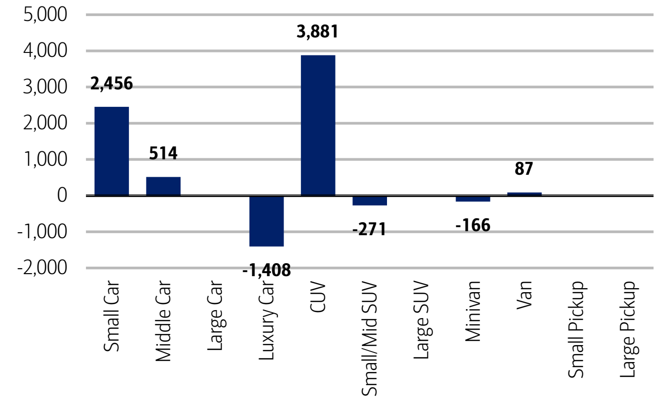
Exhibit 4: Detroit Three OEMs unit change by segment – 2024 YTD
Detroit Three unit sales are up YTD for CUVs and down for Large Pickups



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

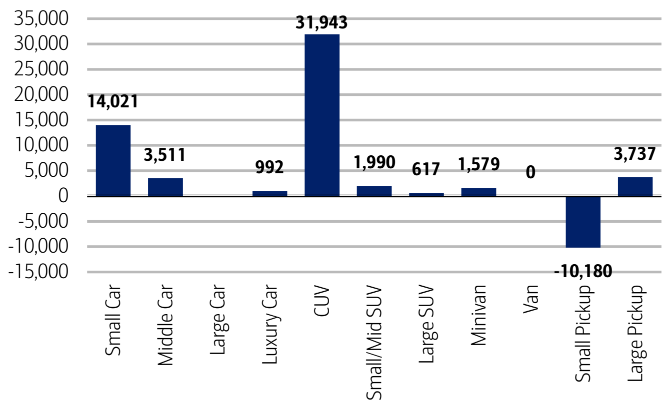
Exhibit 5: European OEMs unit change by segment – 2024 YTD
European unit sales are up YTD for CUVs and Small Cars



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

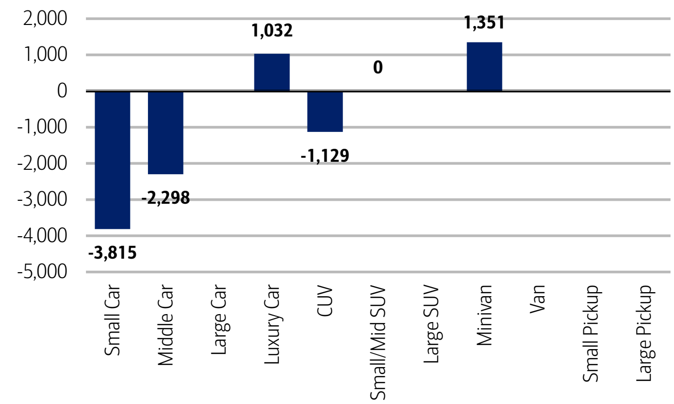
Exhibit 6: Japanese OEMs unit change by segment – 2024 YTD
Japanese unit sales are up materially YTD for CUVs and Small Cars



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

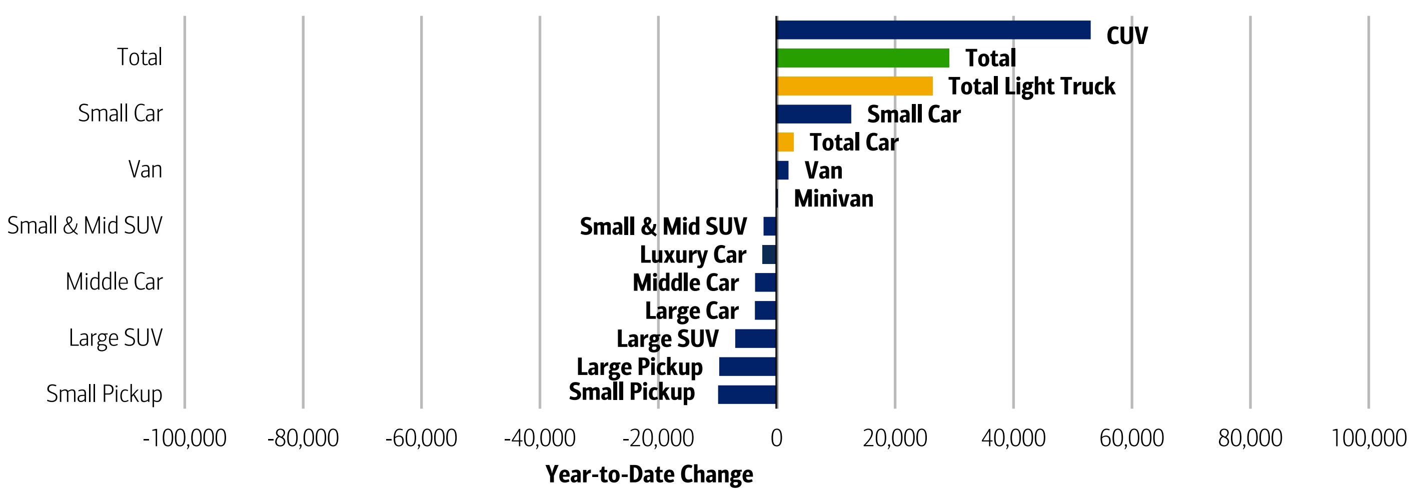
Exhibit 7: Korean OEMs unit change by segment – 2024 YTD
Korean unit sales are down YTD across most segments, most notably CUVs



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

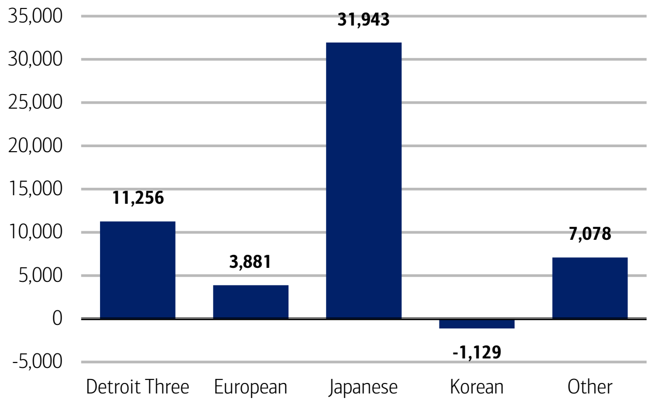
Exhibit 8: US sales by segment – 2024 YTD unit change
Total light vehicle unit sales are up YTD driven mainly by CUVs and Small Cars, partially offset by declines in other segments



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

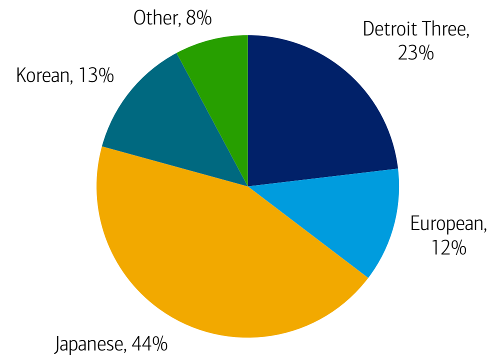
Exhibit 9: CUV segment – 2024 YTD unit change
CUV sales are up YTD for all OEMs, most notably the Japanese



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

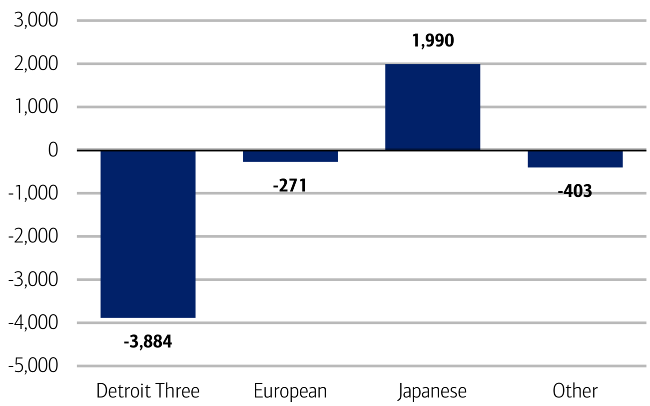
Exhibit 10: CUV segment – 2024 YTD market share
Market share leaders in the CUV segment are Japanese



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

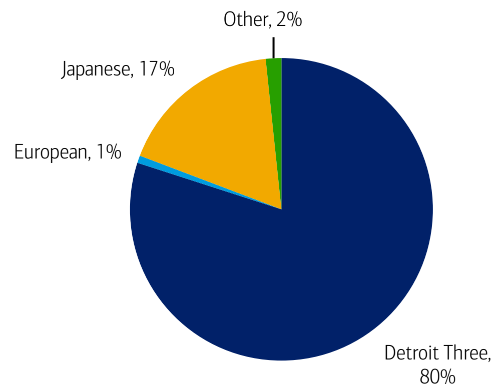
Exhibit 11: Small & Mid SUV segment – 2024 YTD unit change
Small & mid SUV sales are down YTD for all OEMs except for Japanese



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

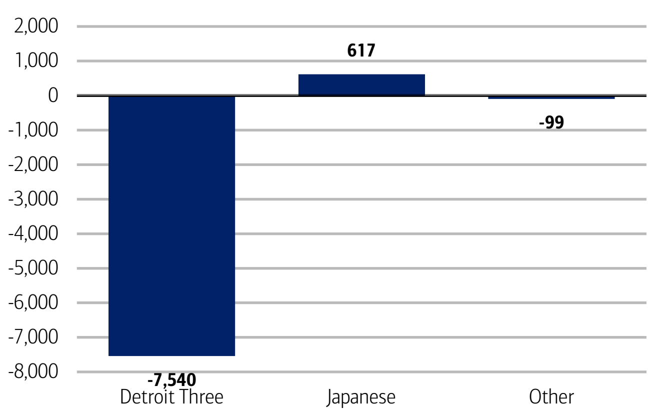
Exhibit 12: Small & Mid SUV segment – 2024 YTD market share
Market share leaders in the small/mid SUV segment are Detroit Three



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

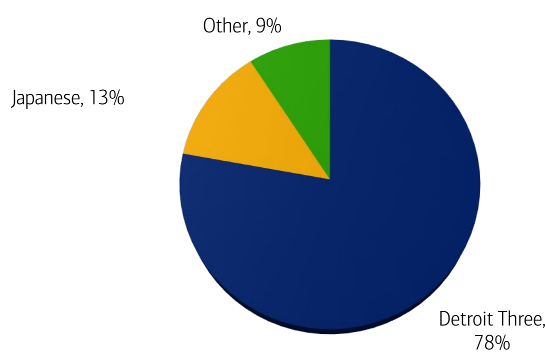
Exhibit 13: Large SUV segment – 2024 YTD unit change
Large SUV sales are down YTD for all OEMs except for Japanese



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

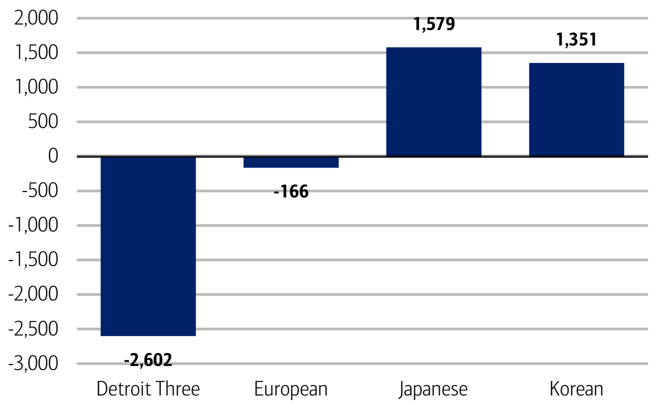
Exhibit 14: Large SUV segment – 2024 YTD market share
Market share leaders in the large SUV segment are Detroit Three



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

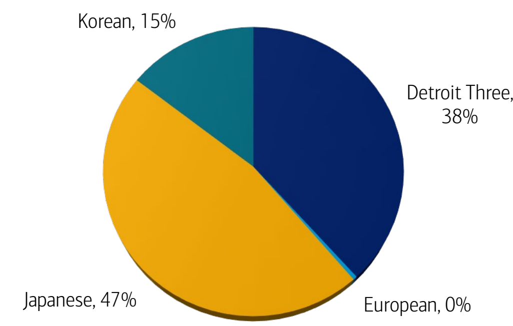
Exhibit 15: Minivan segment – 2024 YTD unit change
Minivan sales are up YTD for the Japanese and Korean OEMs



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

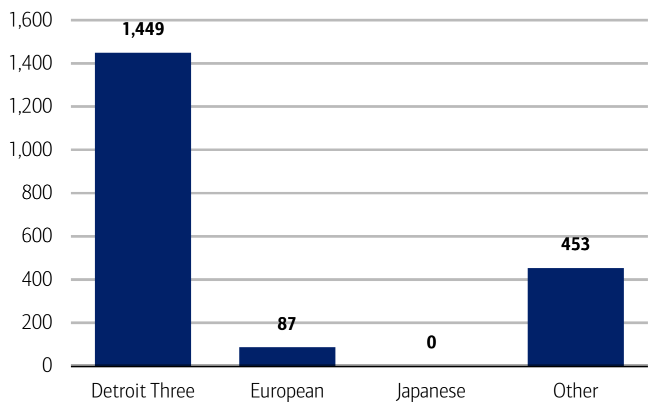
Exhibit 16: Minivan segment – 2024 YTD market share
Market share leaders in the minivan segment are D3 and Japanese



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

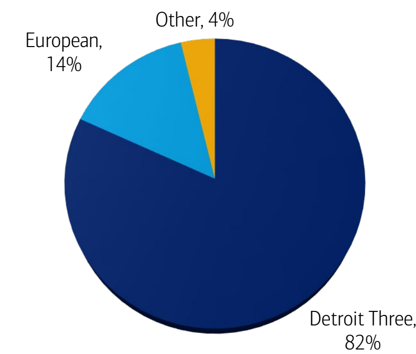
Exhibit 17: Van segment – 2024 YTD unit change
Van sales are up YTD for all OEMs



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

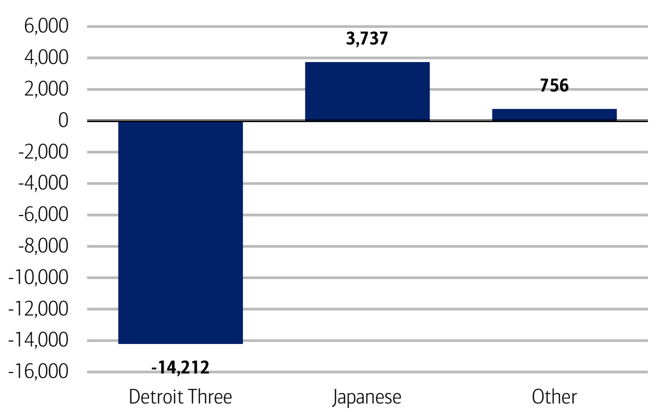
Exhibit 18: Van segment – 2024 YTD market share
Market share leaders in the van segment are Detroit Three



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

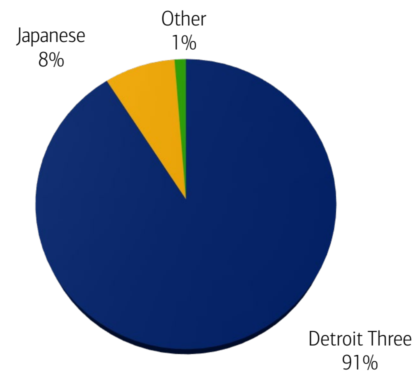
Exhibit 19: Large Pickup segment – 2024 YTD unit change
Large pickup sales are down YTD for the D3 OEMs



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

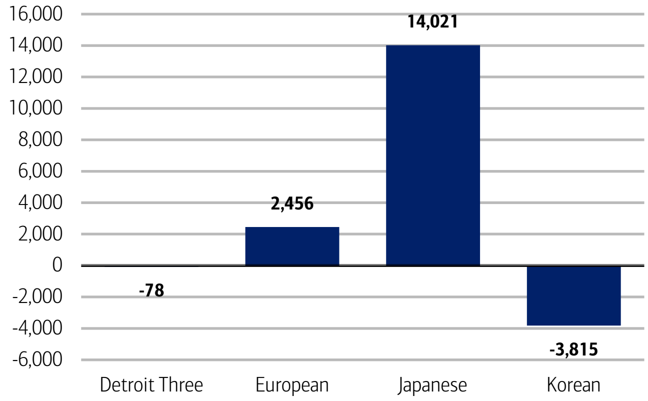
Exhibit 20: Large Pickup segment – 2024 YTD market share
Market share leaders in the large pickup segment are Detroit Three



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

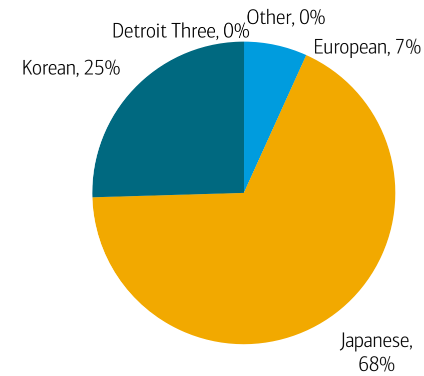
Exhibit 21: Small Car segment – 2024 YTD unit change
Small car sales are up YTD for European, and Japanese OEMs



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

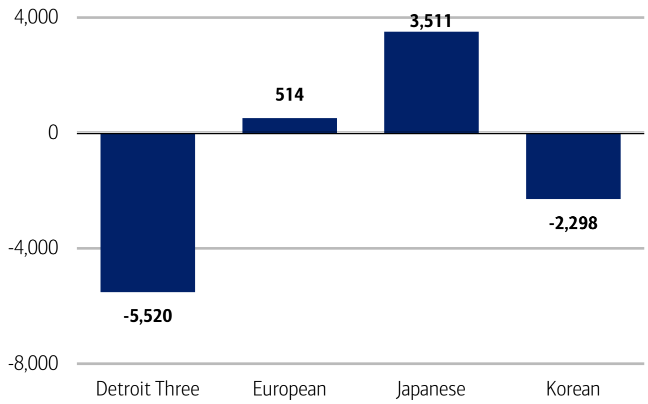
Exhibit 22: Small Car segment – 2024 YTD market share
Market share leaders in the small car segment are Japanese and Koreans



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

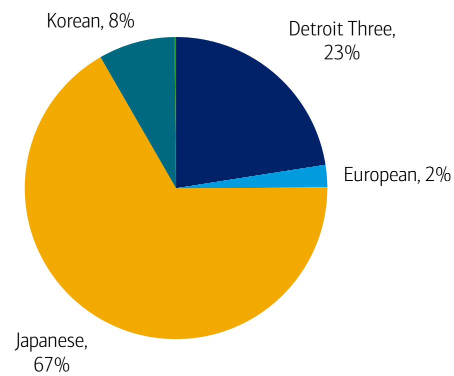
Exhibit 23: Middle Car segment – 2024 YTD unit change
Middle car sales are up YTD for the Korean and Japanese OEMs



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

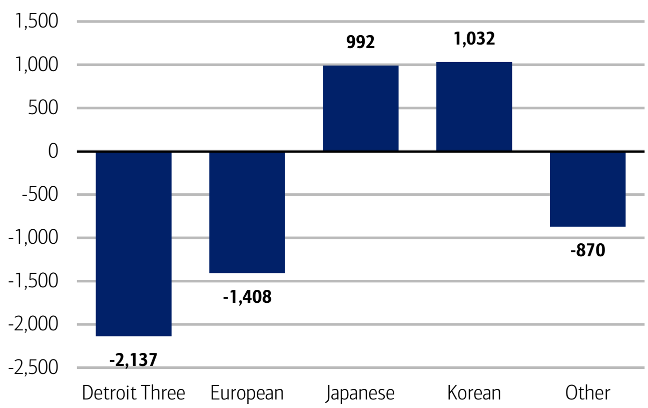
Exhibit 24: Middle Car segment – 2024 YTD market share
Market share leaders in the middle car segment are Japanese



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

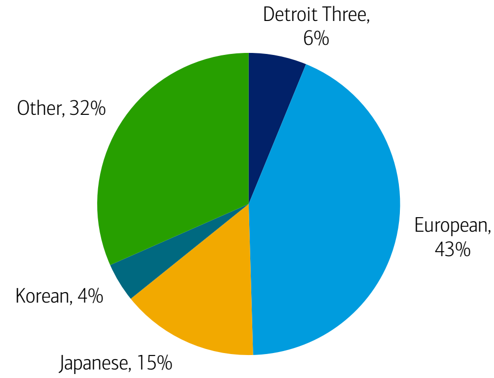
Exhibit 25: Luxury Car segment – 2024 YTD unit change
Luxury car sales are up YTD for Korean and Japanese OEMs



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 26: Luxury Car segment – 2024 YTD market share
Market share leaders in the luxury car segment are European and Other



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 27: Light truck sales by segment & OEM group

Light truck unit sales in January 2024 were up YoY only for the CUV and van segments on a selling day adjusted basis

	Units			Segment Share			Units			Segment Share		
	Jan '24	Jan '23	% Δ	Jan '24	Jan '23	pp +/-	'24 YTD	'23 YTD	% Δ	'24 YTD	'23 YTD	pp +/-
Detroit Three	122,921	111,665	5.7%	23.1%	23.3%	-0.2	122,921	111,665	5.7%	23.1%	23.3%	-0.2
Japanese	233,458	201,515	11.2%	43.9%	42.1%	1.8	233,458	201,515	11.2%	43.9%	42.1%	1.8
European	64,978	61,097	2.1%	12.2%	12.8%	-0.5	64,978	61,097	2.1%	12.2%	12.8%	-0.5
Korean	68,717	69,846	-5.6%	12.9%	14.6%	-1.7	68,717	69,846	-5.6%	12.9%	14.6%	-1.7
Other	41,499	34,421	15.7%	7.8%	7.2%	0.6	41,499	34,421	15.7%	7.8%	7.2%	0.6
Total CUV	**531,573**	**478,544**	**6.6%**	**100.0%**	**100.0%**		**531,573**	**478,544**	**6.6%**	**100.0%**	**100.0%**	
Detroit Three	55,108	58,651	-9.8%	80.1%	82.6%	-2.5	55,108	58,651	-9.8%	80.1%	82.6%	-2.5
Japanese	12,030	10,040	15.0%	17.5%	14.1%	3.3	12,030	10,040	15.0%	17.5%	14.1%	3.3
European	543	814	-36.0%	0.8%	1.1%	-0.4	543	814	-36.0%	0.8%	1.1%	-0.4
Other	1,138	1,541	-29.1%	1.7%	2.2%	-0.5	1,138	1,541	-29.1%	1.7%	2.2%	-0.5
Total Small & Mid SUV	**68,819**	**71,046**	**-7.0%**	**100.0%**	**100.0%**		**68,819**	**71,046**	**-7.0%**	**100.0%**	**100.0%**	
Detroit Three	25,325	32,865	-26.0%	77.9%	83.1%	-5.2	25,325	32,865	-26.0%	77.9%	83.1%	-5.2
Japanese	4,224	3,607	12.4%	13.0%	9.1%	3.9	4,224	3,607	12.4%	13.0%	9.1%	3.9
Other	2,973	3,072	-7.1%	9.1%	7.8%	1.4	2,973	3,072	-7.1%	9.1%	7.8%	1.4
Total Large SUV	**32,522**	**39,544**	**-21.0%**	**100.0%**	**100.0%**		**32,522**	**39,544**	**-21.0%**	**100.0%**	**100.0%**	
Detroit Three	7,952	10,554	-27.7%	38.3%	51.3%	-12.9	7,952	10,554	-27.7%	38.3%	51.3%	-12.9
Japanese	9,694	8,115	14.7%	46.7%	39.4%	7.3	9,694	8,115	14.7%	46.7%	39.4%	7.3
European	87	253	-67.0%	0.4%	1.2%	-0.8	87	253	-67.0%	0.4%	1.2%	-0.8
Korean	3,013	1,662	74.0%	14.5%	8.1%	6.4	3,013	1,662	74.0%	14.5%	8.1%	6.4
Total Minivan	**20,746**	**20,584**	**-3.2%**	**100.0%**	**100.0%**		**20,746**	**20,584**	**-3.2%**	**100.0%**	**100.0%**	
Detroit Three	22,874	21,425	2.5%	81.9%	82.5%	-0.7	22,874	21,425	2.5%	81.9%	82.5%	-0.7
Japanese	0	0		0.0%	0.0%	0.0	0	0		0.0%	0.0%	0.0
European	4,016	3,929	-1.9%	14.4%	15.1%	-0.8	4,016	3,929	-1.9%	14.4%	15.1%	-0.8
Other	1,053	600	68.5%	3.8%	2.3%	1.5	1,053	600	68.5%	3.8%	2.3%	1.5
Total Van	**27,943**	**25,954**	**3.4%**	**100.0%**	**100.0%**		**27,943**	**25,954**	**3.4%**	**100.0%**	**97.7%**	
Detroit Three	22,280	22,009	-2.8%	54.9%	43.6%	11.3	22,280	22,009	-2.8%	54.9%	43.6%	11.3
Japanese	18,303	28,483	-38.3%	45.1%	56.4%	-11.3	18,303	28,483	-38.3%	45.1%	56.4%	-11.3
Total Small Pickup	**40,583**	**50,492**	**-22.8%**	**100.0%**	**100.0%**		**40,583**	**50,492**	**-22.8%**	**100.0%**	**100.0%**	
Detroit Three	127,896	142,108	-13.6%	90.9%	94.5%	-3.6	127,896	142,108	-13.6%	90.9%	94.5%	0.5
Japanese	11,059	7,322	45.0%	7.9%	4.9%	3.0	11,059	7,322	45.0%	7.9%	4.9%	0.0
Other	1,756	1,000	68.6%	1.2%	0.7%	0.6	1,756	1,000	68.6%	1.2%	0.7%	0.0
Total Large Pickup	**140,711**	**150,430**	**-10.2%**	**100.0%**	**100.0%**		**140,711**	**150,430**	**-10.2%**	**100.0%**	**100.0%**	

Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 28: Passenger car sales by segment & OEM group

Passenger car unit sales in January 2024 were up YoY only for the small car segment on a selling day adjusted basis

	Units			Segment Share			Units			Segment Share YTD		
	Jan '24	Jan '23	% Δ	Jan '24	Jan '23	pp +/-	2023 YTD	2022 YTD	YTD % Δ	2023 YTD	2022 YTD	pp +/-
Detroit Three	30	108	-73.3%	0.0%	0.2%	-0.1	30	108	-73.3%	0.0%	0.2%	-0.1
Japanese	53,435	39,414	30.2%	67.8%	59.5%	8.3	53,435	39,414	30.2%	67.8%	59.5%	8.3
European	5,303	2,847	78.8%	6.7%	4.3%	2.4	5,303	2,847	78.8%	6.7%	4.3%	2.4
Korean	20,077	23,892	-19.3%	25.5%	36.1%	-10.6	20,077	23,892	-19.3%	25.5%	36.1%	-10.6
Total Small Car	**78,845**	**66,261**	**14.2%**	**100.0%**	**100.0%**		**78,845**	**66,261**	**14.2%**	**100.0%**	**100.0%**	
Detroit Three	17,699	23,219	-26.8%	22.5%	28.2%	-5.7	17,699	23,219	-26.8%	22.5%	28.2%	-5.7
Japanese	52,455	48,944	2.9%	66.7%	59.5%	7.2	52,455	48,944	2.9%	66.7%	59.5%	7.2
European	1,896	1,382	31.7%	2.4%	1.7%	0.7	1,896	1,382	31.7%	2.4%	1.7%	0.7
Korean	6,409	8,707	-29.3%	8.2%	10.6%	-2.4	6,409	8,707	-29.3%	8.2%	10.6%	-2.4
Total Middle Car	**78,585**	**82,252**	**-8.3%**	**100.0%**	**100.0%**		**78,585**	**82,252**	**-8.3%**	**100.0%**	**100.0%**	
Detroit Three	2,901	6,581	-57.7%	100.0%	100.0%	0.0	2,901	6,581	-57.7%	100.0%	100.0%	0.0
Total Large Car	**2,901**	**6,581**	**-57.7%**	**100.0%**	**100.0%**		**2,901**	**6,581**	**-57.7%**	**100.0%**	**100.0%**	
Detroit Three	3,261	5,398	-42.0%	6.2%	9.8%	-3.6	3,261	5,398	-42.0%	6.2%	9.8%	-3.6
Japanese	7,739	6,747	10.1%	14.7%	12.2%	0.1	7,739	6,747	10.1%	14.7%	12.2%	0.1
European	22,868	24,276	-9.6%	43.4%	44.0%	0.4	22,868	24,276	-9.6%	43.4%	44.0%	0.4
Korean	2,200	1,168	80.8%	4.2%	2.1%	0.0	2,200	1,168	80.8%	4.2%	2.1%	0.0
Others	16,681	17,551	-8.8%	31.6%	31.8%	0.3	16,681	17,551	-8.8%	31.6%	31.8%	0.3
Total Luxury Car	**52,749**	**55,140**	**-8.2%**	**100.0%**	**100.0%**		**52,749**	**55,140**	**-8.2%**	**100.0%**	**100.0%**	

Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 29: Light vehicle sales by OEM group
Total light vehicle sales in January 2024 declined 1.3% YoY, with car sales down 2.7% YoY and light truck sales down 1.0% YoY

	1/2024	1/2023	% D per SD	2024 YTD	2023 YTD	% D per SD
Light Vehicles			-			-
Detroit Three	408,265	434,606	-9.8%	408,265	434,606	-9.8%
Europeans	99,817	94,598	1.3%	99,817	94,598	1.3%
Japanese	399,962	351,641	9.2%	399,962	351,641	9.2%
Koreans	102,903	107,889	-8.4%	102,903	107,889	-8.4%
Other	65,100	58,185	7.4%	65,100	58,185	7.4%
Total Light Vehicles	**1,076,047**	**1,046,919**	**-1.3%**	**1,076,047**	**1,046,919**	**-1.3%**
Cars						
Detroit Three	23,891	35,306	-35.0%	23,891	35,306	-35.0%
Europeans	30,193	28,505	1.7%	30,193	28,505	1.7%
Japanese	113,629	95,105	14.7%	113,629	95,105	14.7%
Koreans	28,686	33,767	-18.4%	28,686	33,767	-18.4%
Other	16,681	17,551	-8.8%	16,681	17,551	-8.8%
Total Cars	**213,080**	**210,234**	**-2.7%**	**213,080**	**210,234**	**-2.7%**
Trucks						
Detroit Three	384,374	399,300	-7.6%	384,374	399,300	-7.6%
Europeans	69,624	66,093	1.1%	69,624	66,093	1.1%
Japanese	286,333	256,536	7.2%	286,333	256,536	7.2%
Koreans	74,217	74,122	-3.9%	74,217	74,122	-3.9%
Other	48,419	40,634	14.4%	48,419	40,634	14.4%
Total Trucks	**862,967**	**836,685**	**-1.0%**	**862,967**	**836,685**	**-1.0%**

Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

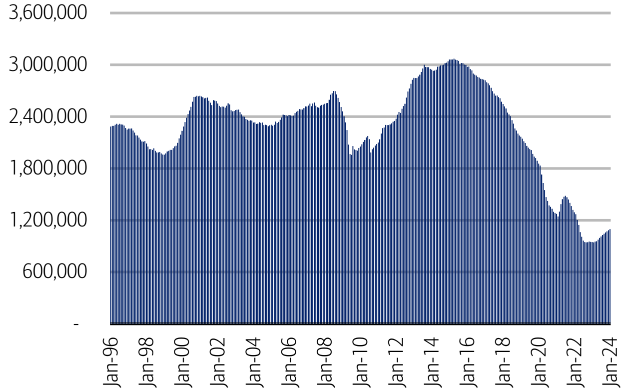
Exhibit 30: Light vehicle market share
The Detroit Three and Japanese OEMs continue to hold the most market share for US light vehicle sales

	1/2024	1/2023	+/-	2024 YTD	2023 YTD	+/-
Light Vehicles						
Detroit Three	37.9%	41.5%	-3.57	37.9%	41.5%	-3.57
Europeans	9.3%	9.0%	0.24	9.3%	9.0%	0.24
Japanese	37.2%	33.6%	3.58	37.2%	33.6%	3.58
Koreans	9.6%	10.3%	-0.74	9.6%	10.3%	-0.74
Other	6.0%	5.6%	0.49	6.0%	5.6%	0.49
Total Light Vehicles	**100.0%**	**100.0%**	**0.00**	**100.0%**	**100.0%**	**0.00**
Cars						
Detroit Three	11.2%	16.8%	-5.6	11.2%	16.8%	-5.6
Europeans	14.2%	13.6%	0.6	14.2%	13.6%	0.6
Japanese	53.3%	45.2%	8.1	53.3%	45.2%	8.1
Koreans	13.5%	16.1%	-2.6	13.5%	16.1%	-2.6
Other	7.8%	8.3%	-0.5	7.8%	8.3%	-0.5
Total Cars	**100.0%**	**100.0%**	**0.0**	**100.0%**	**100.0%**	**0.0**
Trucks						
Detroit Three	44.5%	47.7%	-3.2	44.5%	47.7%	-3.2
Europeans	8.1%	7.9%	0.2	8.1%	7.9%	0.2
Japanese	33.2%	30.7%	2.5	33.2%	30.7%	2.5
Koreans	8.6%	8.9%	-0.3	8.6%	8.9%	-0.3
Other	5.6%	4.9%	0.8	5.6%	4.9%	0.8
Total Trucks	**100.0%**	**100.0%**	**0.0**	**100.0%**	**100.0%**	**0.0**

Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

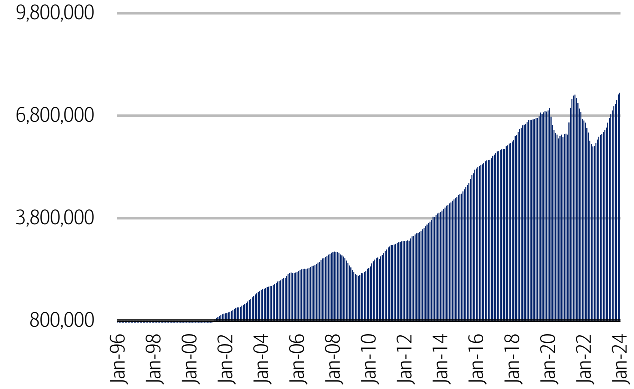
Exhibit 31: Small Car LTM sales
Small car sales are increasing on an LTM basis



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

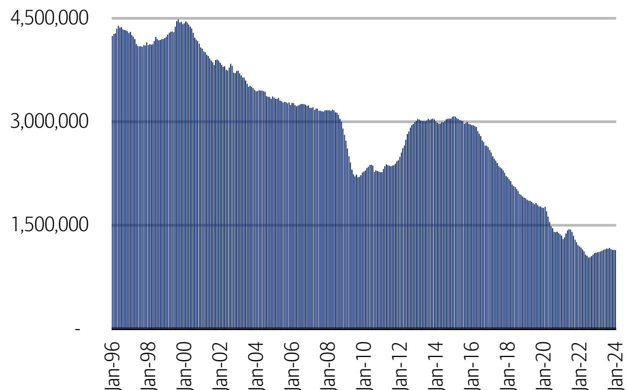
Exhibit 32: Crossover Utility Vehicle (CUV) LTM sales
CUV sales are increasing on an LTM basis



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

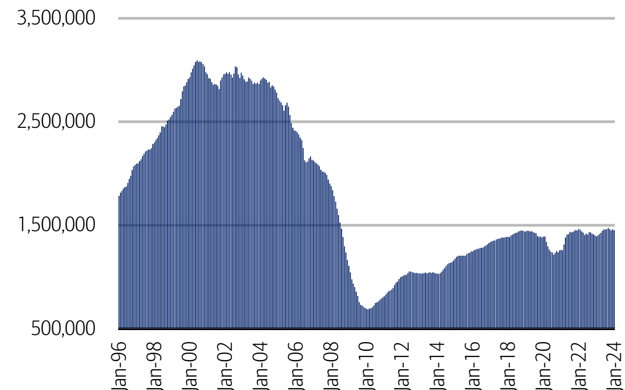
Exhibit 33: Middle Car LTM sales
Middle car sales have flattened out on an LTM basis



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

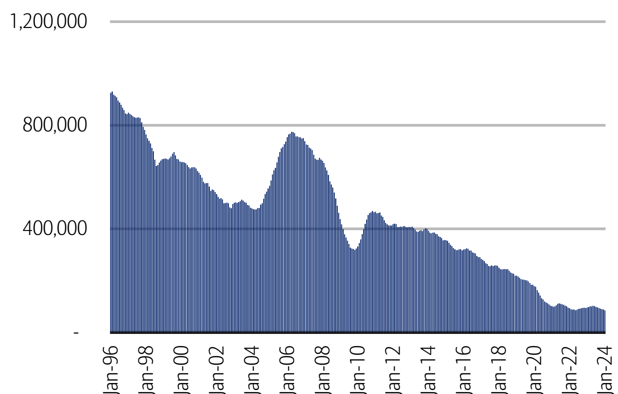
Exhibit 34: Sport Utility Vehicle (SUV) LTM sales
SUV sales have been flattish on an LTM basis



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

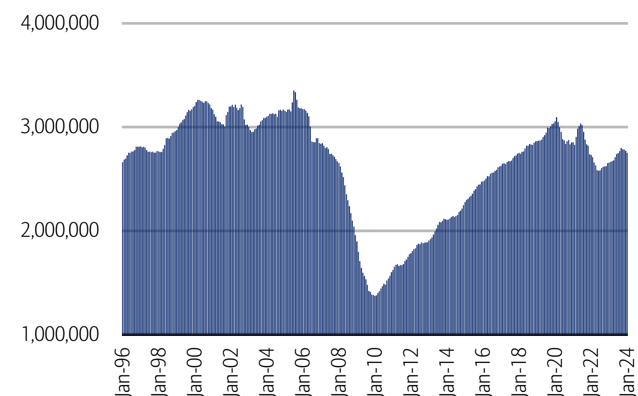
Exhibit 35: Large Car LTM sales
Large car sales are decreasing on an LTM basis



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 36: Pickup LTM sales
Pickup sales have started to decline on an LTM basis

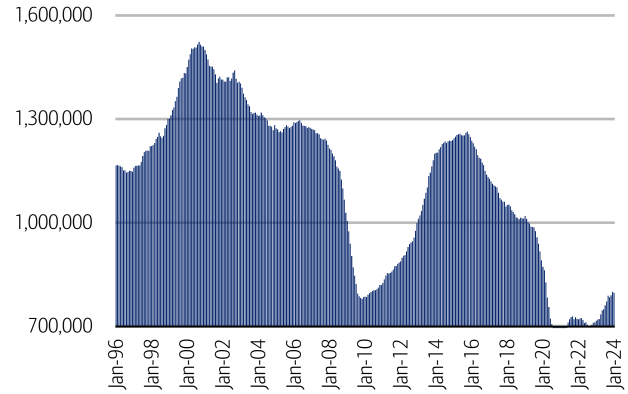


Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 37: Luxury Car LTM sales

Luxury car sales are roughly flat on an LTM basis

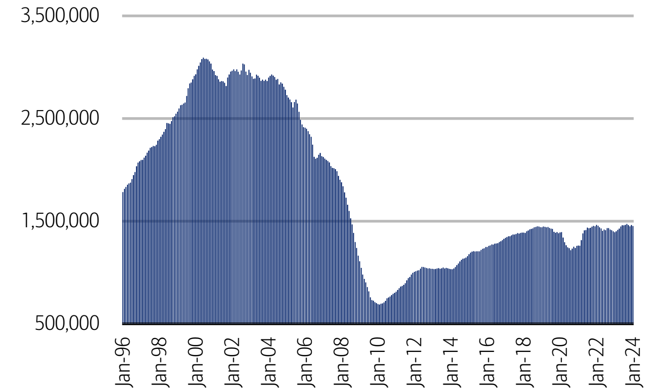


Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 38: Van LTM Sales

Van sales are roughly flat on an LTM basis

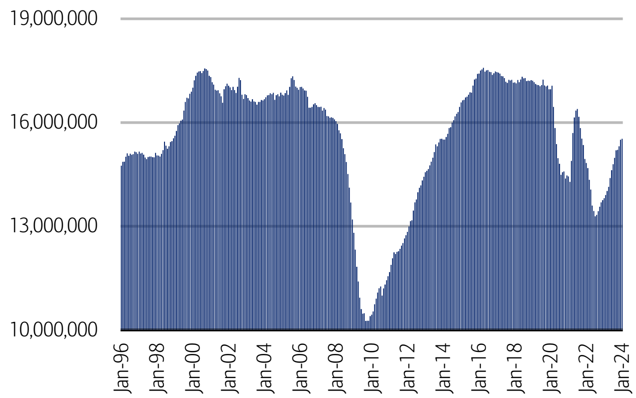


Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Exhibit 39: Total light vehicle LTM sales

Total light vehicle sales are increasing on an LTM basis



Source: WardsAuto InfoBank

BofA GLOBAL RESEARCH

Disclosures

Important Disclosures

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.
Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.
The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.
Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.
Refer to BofA Global Research policies relating to conflicts of interest.
"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.
Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:
BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofaml.com/BofASEdisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.
This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the Electronic Communications Disclaimers for further information.
This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.
General Investment Related Disclosures:
Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.
This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute,

investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.