U.S. Auto Industry and Supply Chain Update

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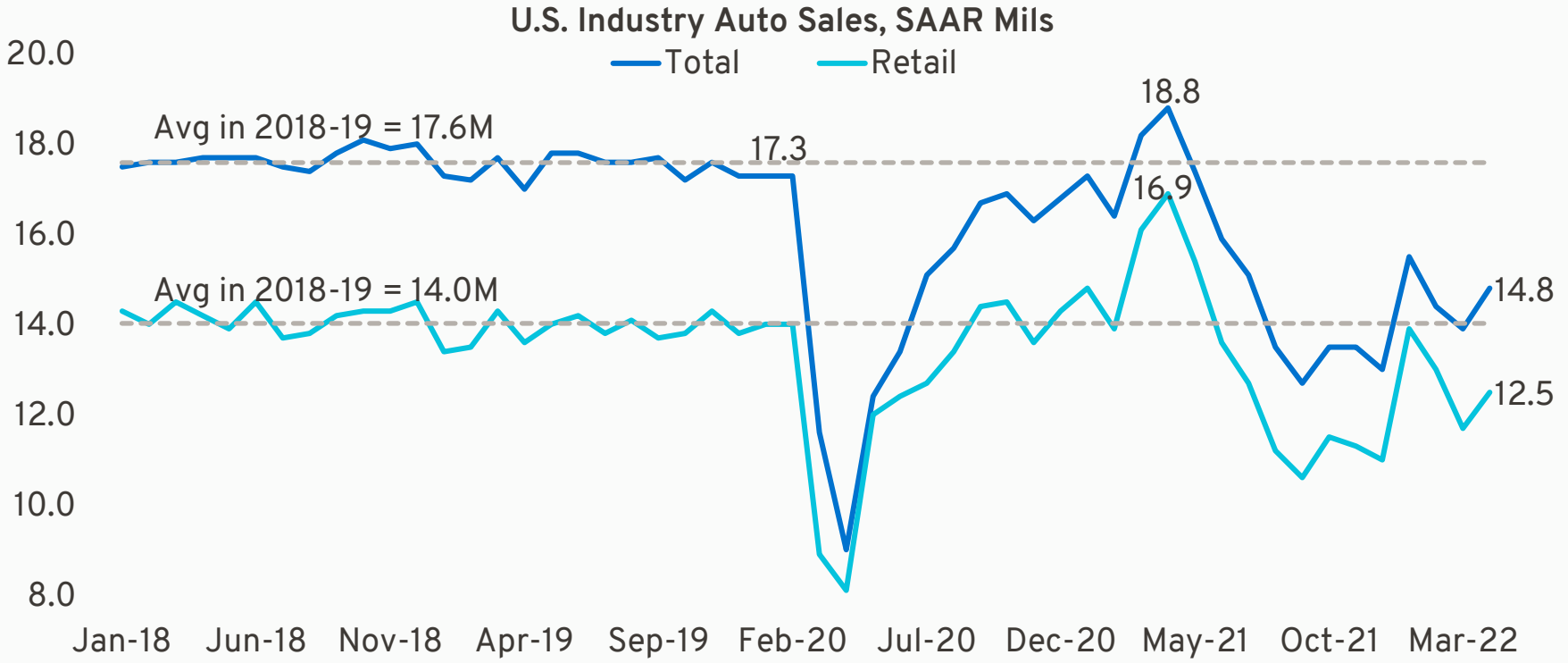
May 25, 2022

Auto sales ran at a 14.5M SAAR in Q1 due to ongoing supply issues

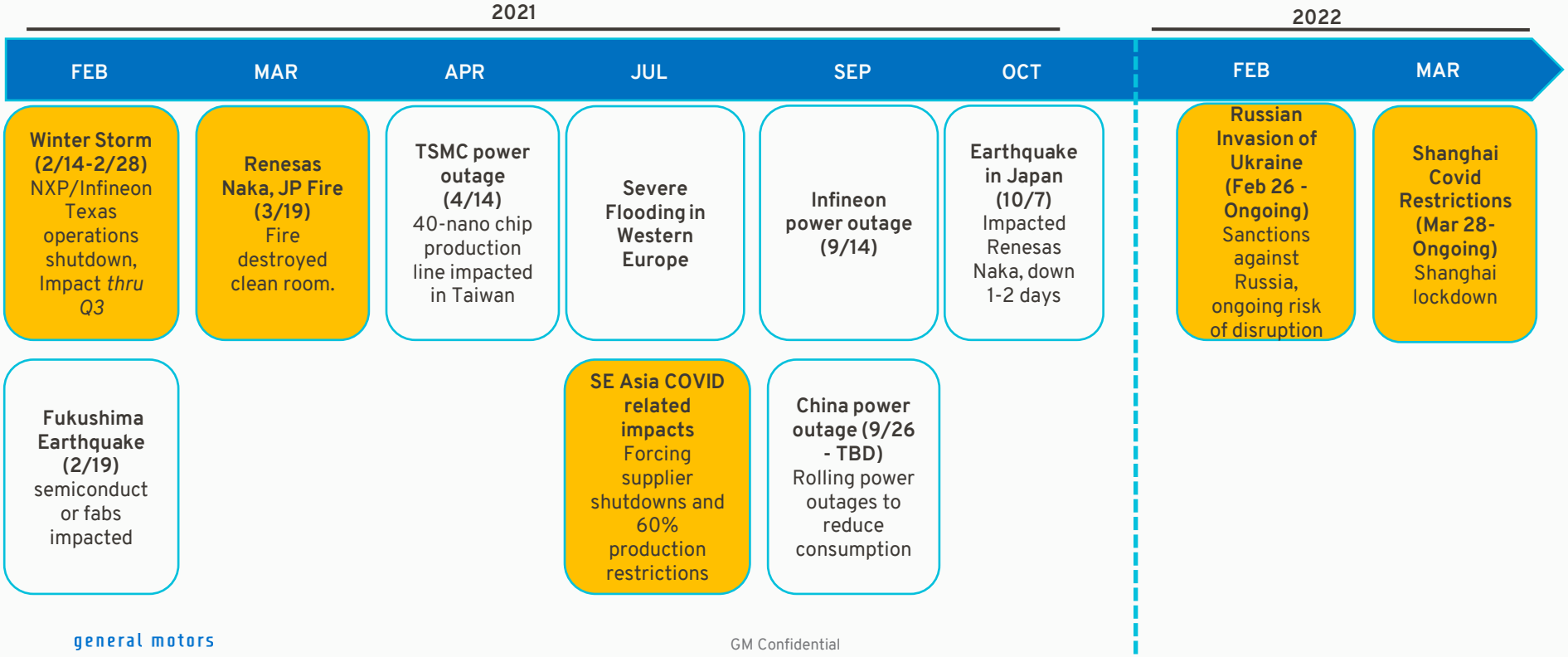
Retail has recovered more than fleet or total sales



Sources: Polk, Bureau of Economic Analysis

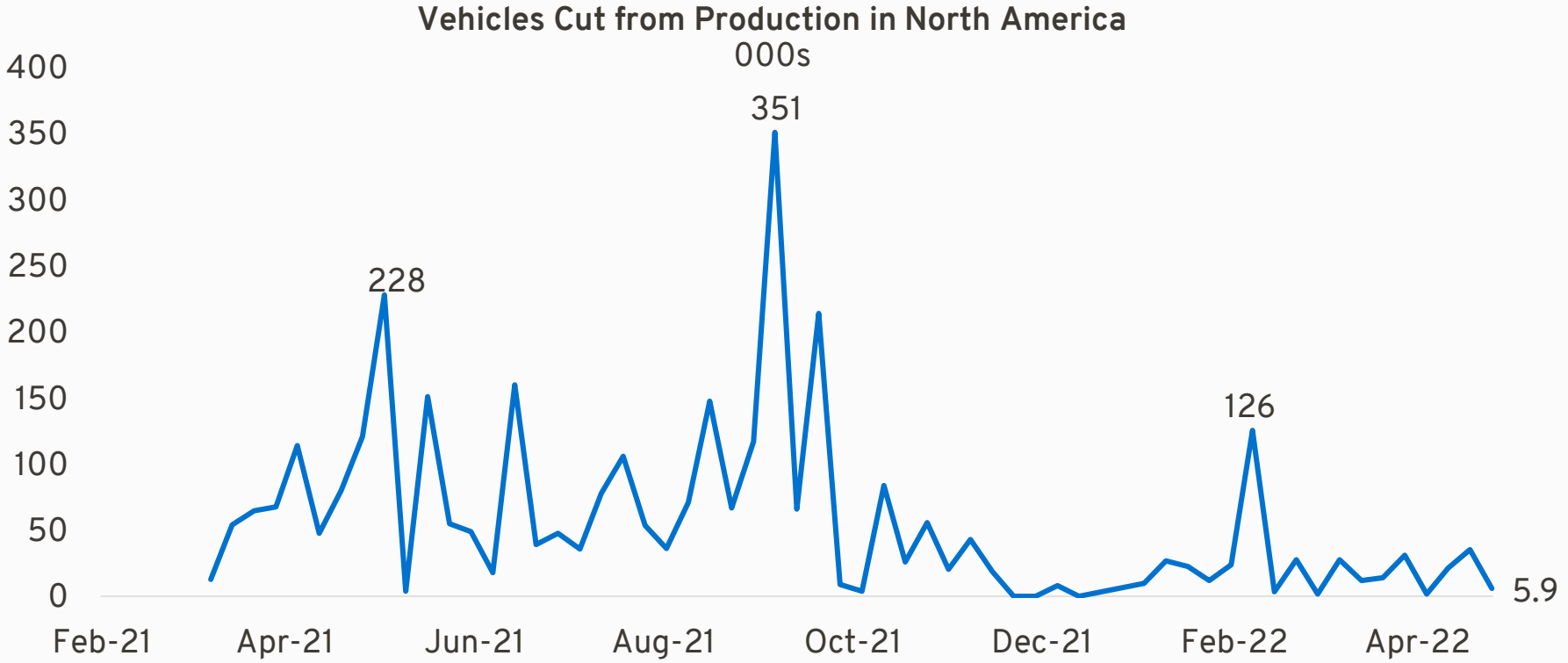
Multiple shocks to semiconductor production on top of excess demand

Significant discrete impacts compound semiconductor capacity challenges



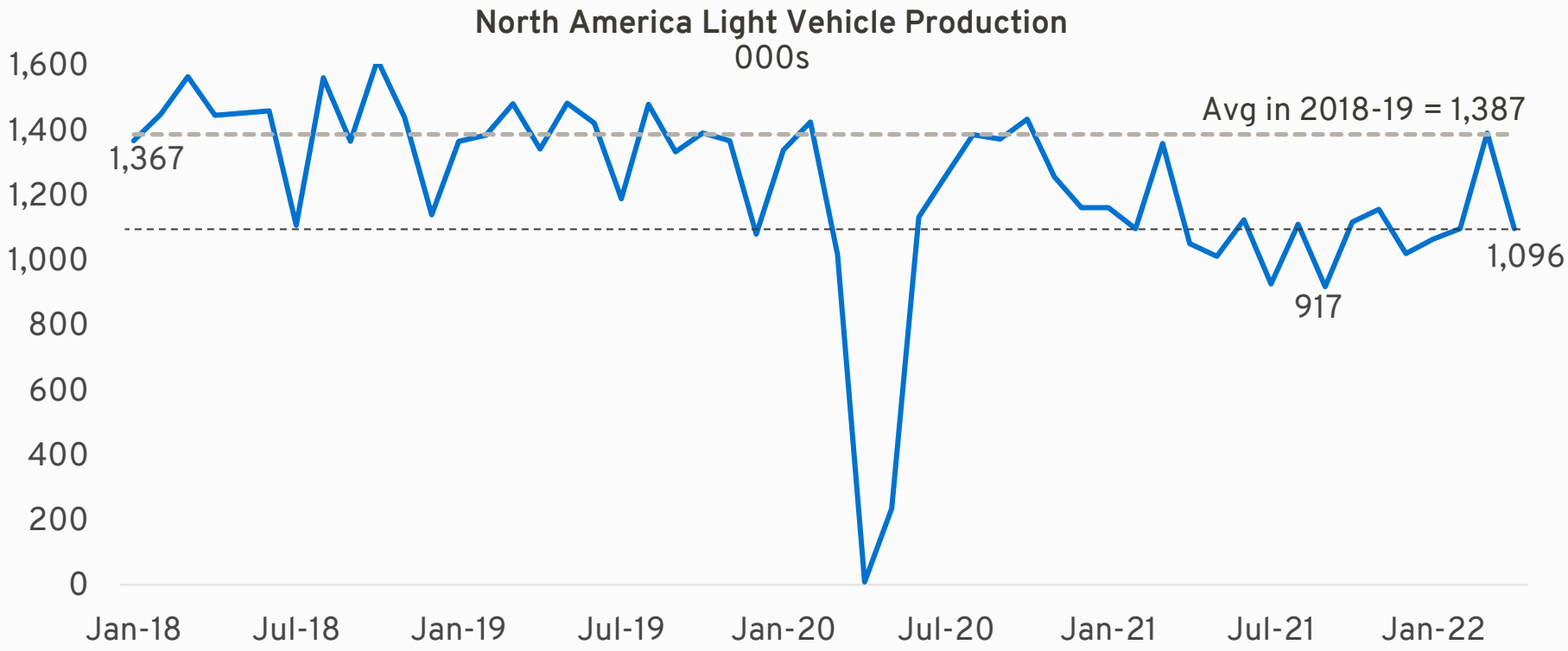
As of 05/24/21; all events gathered from third party news sources, including NYT, Nikkei, Bloomberg, WSJ, Reuters, Japan Times, SiliconExpert,

Little plant downtime since mid-November
thanks to better chip supply



Sources: AutoForecast Solutions via Automotive News

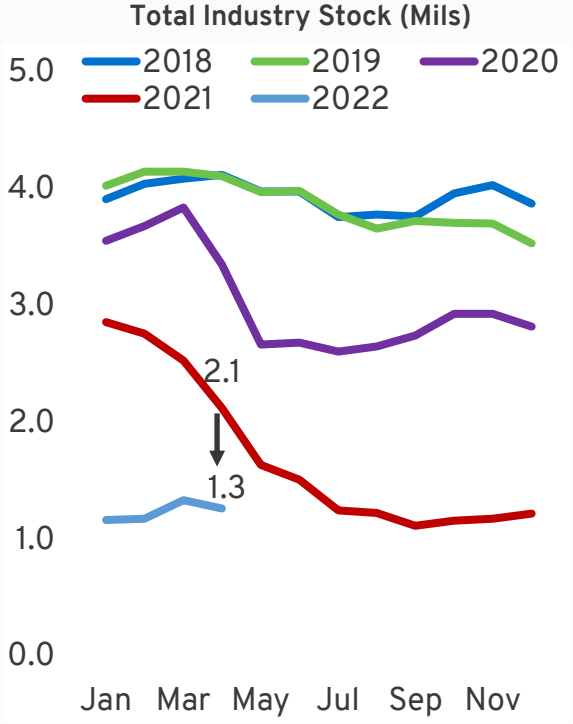
North American auto production remains below pre-COVID peaks



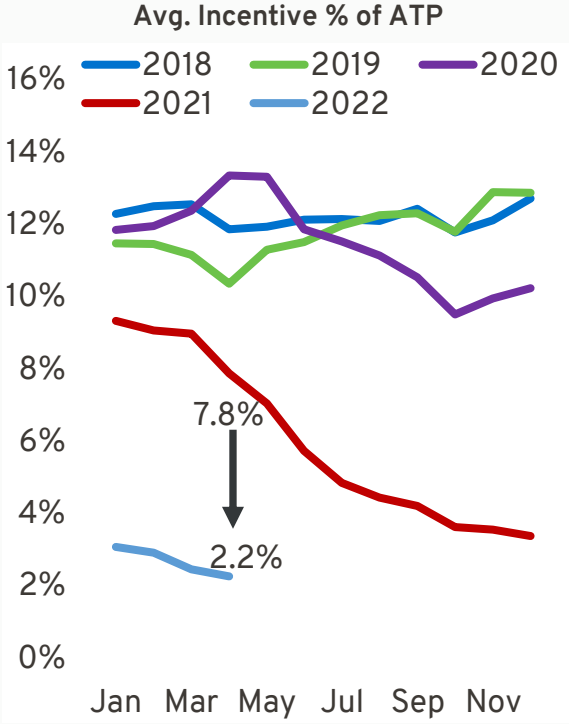
Sources: IHS Markit; actuals through March 2022. Forecasts beyond

Inventory is historically lean

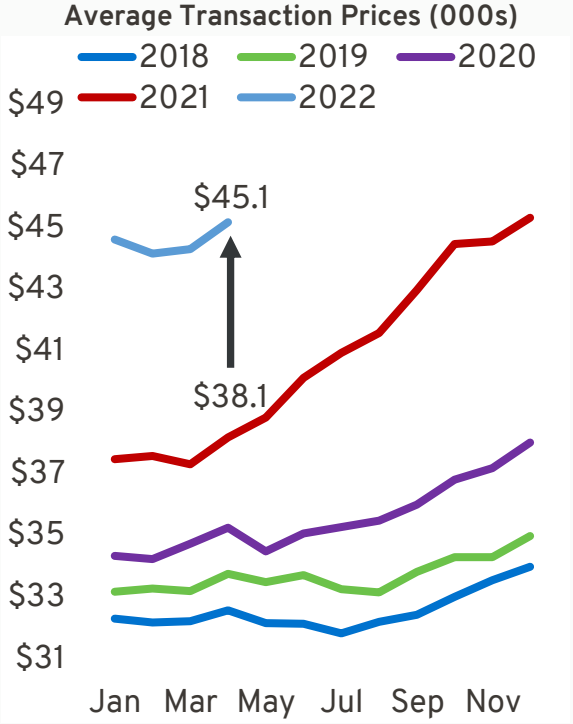
Incentives have fallen to only 2.2% of average transaction price



Source: NA EZQ, JD Power PIN, Nominal Prices

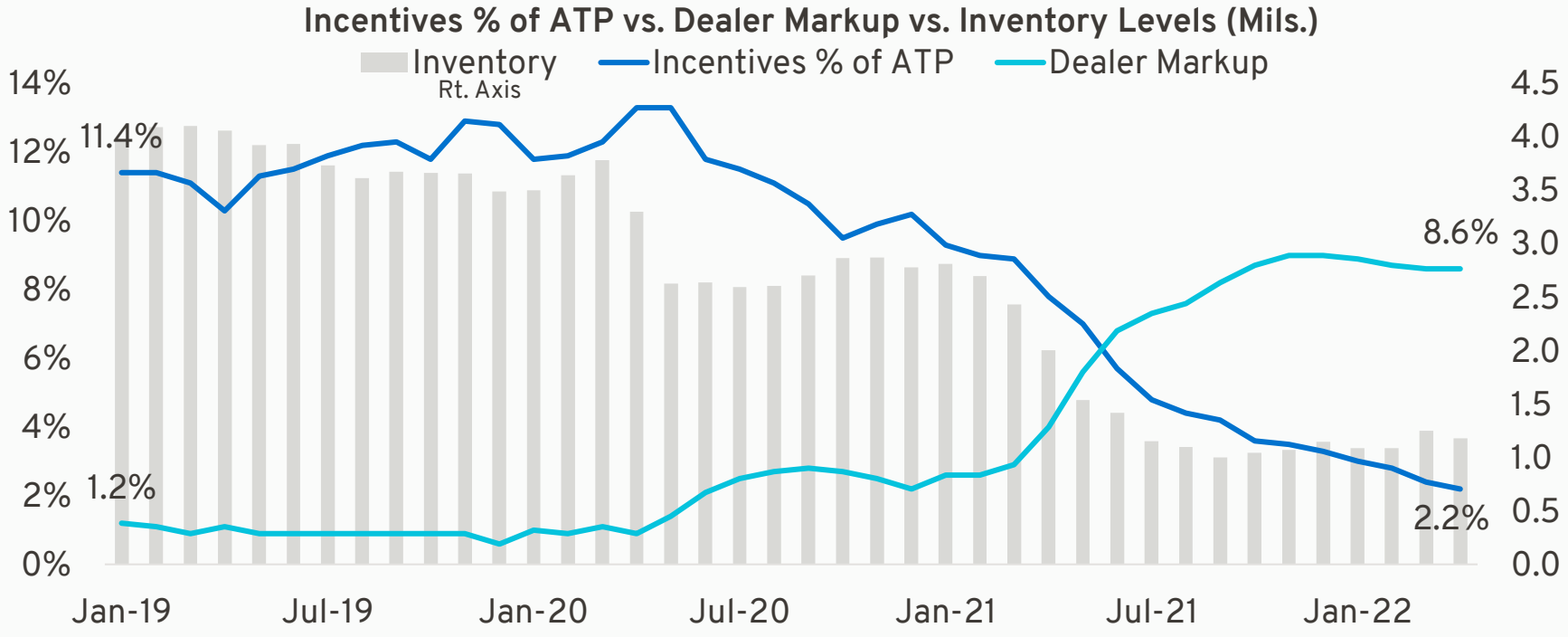


Source: JD Power PIN; GM calculations



Source: JD Power PIN; Nominal Prices

With limited inventory, incentives continue falling, while dealer markup over cost has eased off its peak



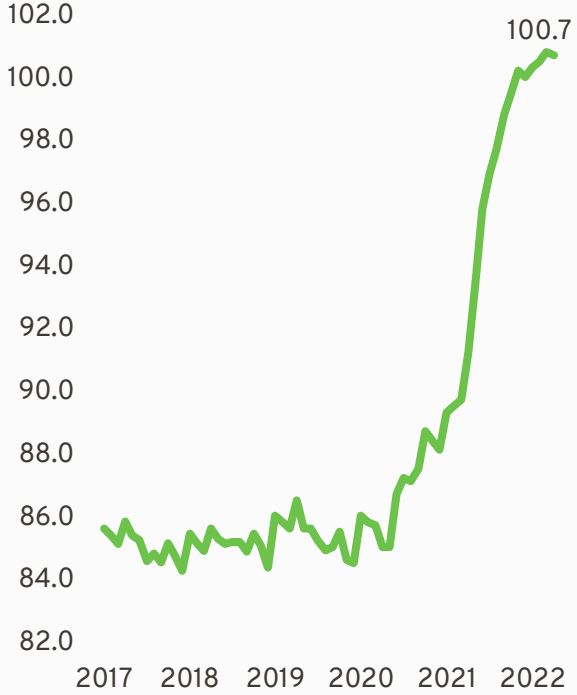
Sources: PIN

general motors

Chip shortage has driven up new and used vehicle prices

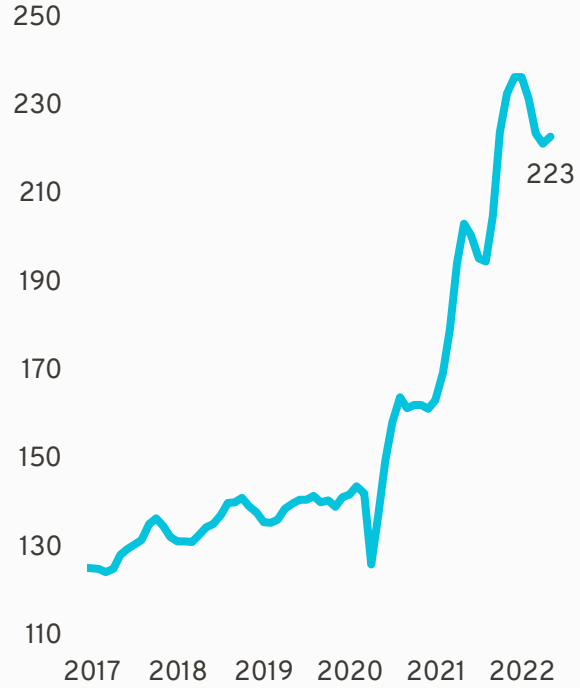
Used vehicle prices have softened, starting in February

New Vehicle Average Transaction Price as % of MSRP

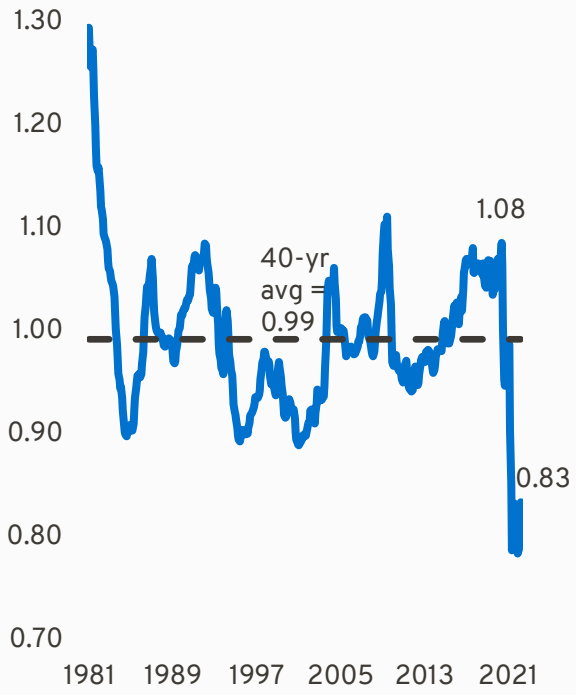


Manheim Used Vehicle Price Index

Jan-95 = 100

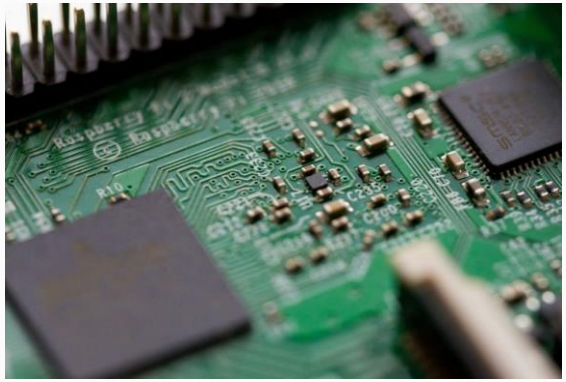


New/Used Vehicle CPI Ratio



Sources: Bureau of Labor Statistics, Manheim, JD Power PIN, Haver Analytics

Directly managing chip purchases and design for our vehicles



We are completely shifting our approach to buying chips, from buying components from our suppliers that contain chips, to directly managing all chip purchases and chip design for our vehicles.

GM sees our microprocessor requirements more than doubling over the next several years as vehicles become technology platforms.

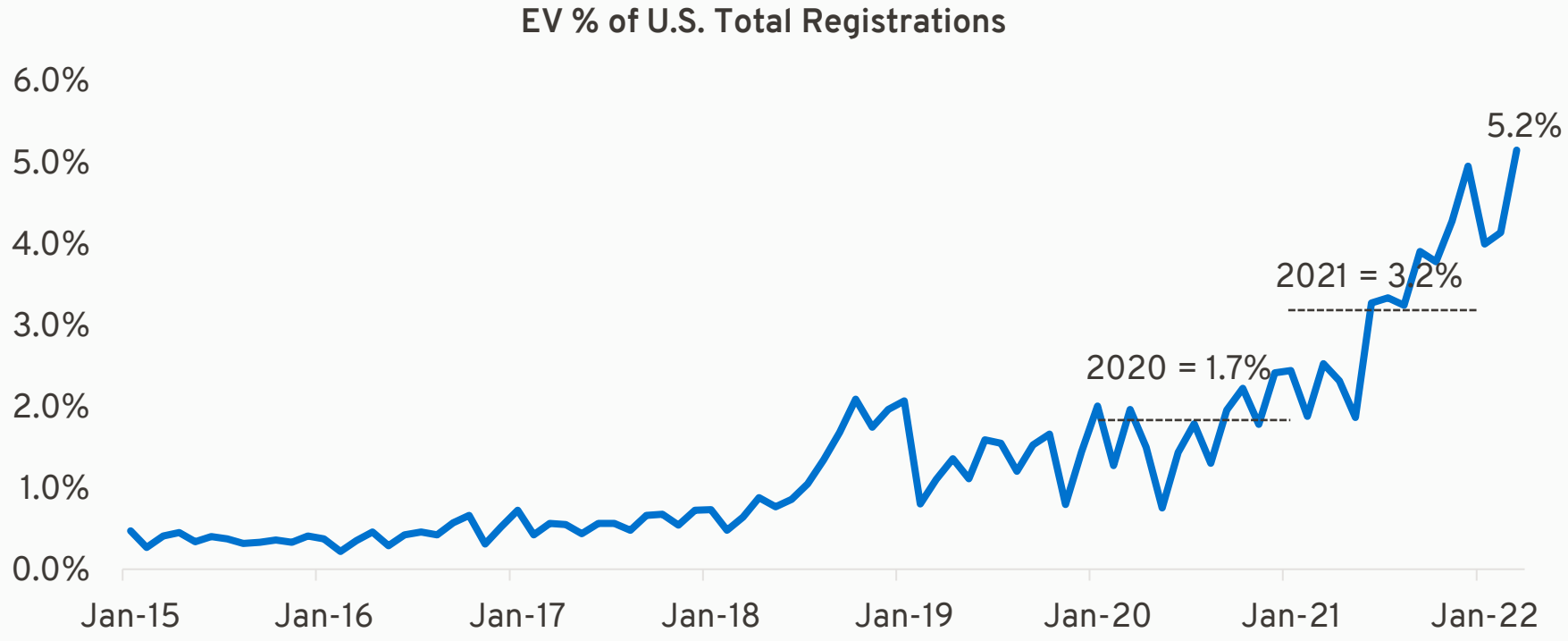
GM's new strategy will reduce the number of unique micro controller units (MCUs) required by 95 percent to industry-leading levels.

GM is partnering with 7 chip makers: Qualcomm, STMicroelectronics, TSMC, Renesas, Onsemi, NXP, Infineon.

Much of the investment needed will flow to the U.S. and Canada.

EV Sales and Supply Chain

EV industry penetrations reached 5.2% of industry sales in March, tripling from 2020 levels



Sources: IHS Polk Registrations

Establishing a sustainable EV raw material value chain

GM is actively pursuing opportunities to localize as much of the supply chain as possible

Partnerships created for lithium, cobalt, rare earths, alloy flakes, permanent magnets, and CAM

Recycling should be primary source of battery raw materials in the long term

Recycling today: cobalt, nickel

Future recycling: cobalt, nickel, lithium, graphite, copper, manganese, and aluminum

GM Sustainable EV Supply Chain Partnerships

- **Lithium** with Controlled Thermal Resources (CTR) to secure lithium produced by the first stage of its Hell's Kitchen Project in California.
- **Cobalt** with Glencore, which will supply Australian cobalt under a multi-year agreement.
- **Rare earth materials** with GE, to develop a rare earth value chain.
- **Alloy flakes** with MP Materials, which will establish the first North American processing site for alloy flakes. The company will then expand into magnet manufacturing around 2025 at its new production facility in Fort Worth, Texas.
- **Permanent magnets** with VAC, which will establish a North America footprint to support GM's magnet requirements starting in 2024, including locally sourced raw materials and finished magnet production.
- **CAM with POSCO.** The Quebec site will process CAM, a key battery material consisting of components like processed nickel, lithium and other materials representing about 40% of the cost of a battery cell.

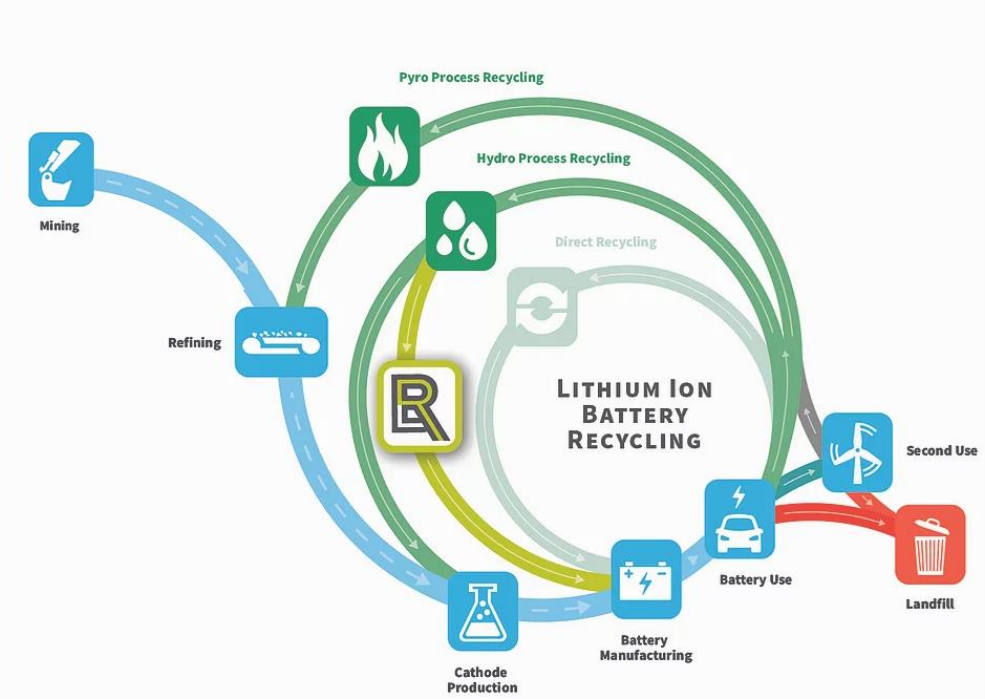
Recycling should be primary source of battery raw materials in the long term

Our Ultium Cells LLC joint venture with LG Energy has an agreement with Li-Cycle to recycle up to 100% of material scrap from our battery cell manufacturing process.

Modular design of Ultium batteries also makes them easy to reuse or recycle.

Recycling today: cobalt, nickel

Future recycling: cobalt, nickel, lithium, graphite, copper, manganese, and aluminum using a new process that emits 30% fewer emissions than traditional recycling processes.



Thank You