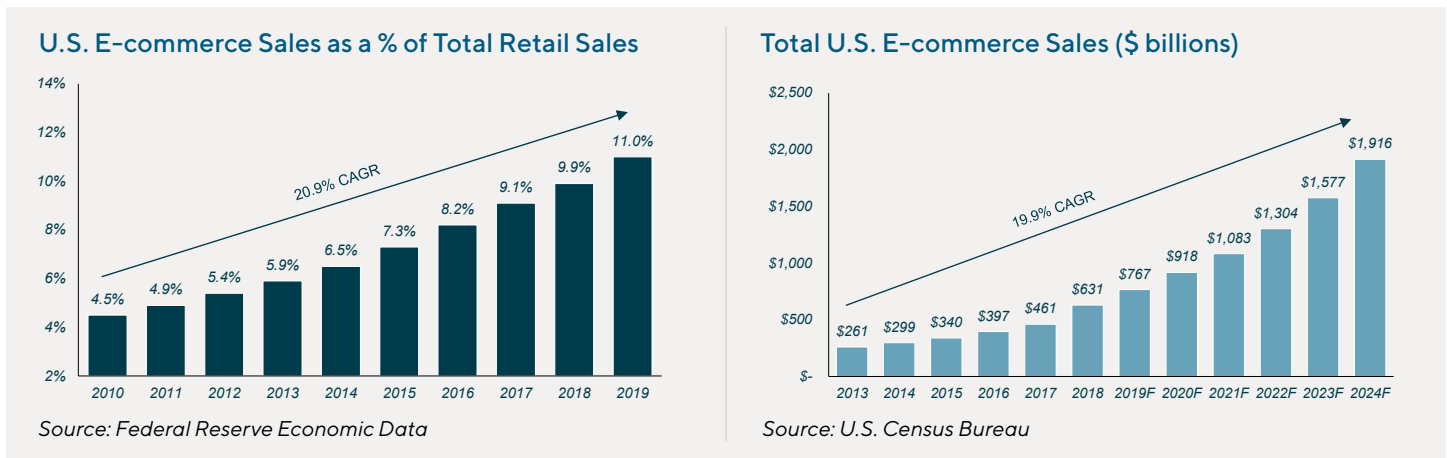


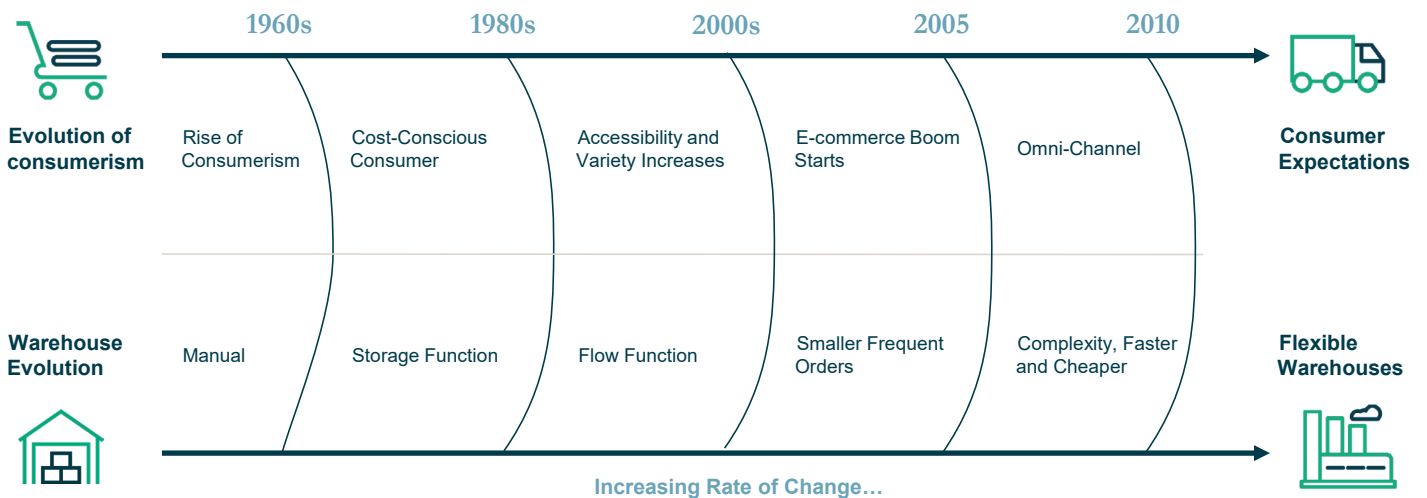
Increased E-commerce Sales Generate Opportunities for Material Handling Automation Investors

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Rapidly growing e-commerce sales, both in total dollars and as a percentage of total retail sales, is driving demand for more automated warehouse and distribution solutions. This has transformed warehouse functionality, from a mostly low-technology storage function, to highly automated operations capable of supporting rapid turnaround e-commerce fulfillment and store replenishment for omni-channel players.



Warehouses have evolved to suit consumer expectations



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4 DRIVERS OF WAREHOUSE AND DISTRIBUTION AUTOMATION

1. To process more orders and a wider array of packages

Offering free shipping regardless of order quantity has encouraged more orders of smaller units

Increasing complexity of package sizes, shapes, weights and material (box vs. polybag) requires more advanced automation solutions

2. To meet shorter delivery times

The demand to handle more volume at faster speeds (same-day or next day in many cases) has led to increased demand for automation

Year-round, seven-day-per-week delivery by parcel carriers is now table stakes; the increased volume and uptime has focused parcel players on investing in automation solutions

3. To invest in supply-chain efficiency

Demand for warehouse and distribution centers continues to grow due to low vacancy rates of existing space and increasing demand for last mile distribution facilities

Being closer to the consumer decreases supply-chain costs while minimizing the time to complete delivery

4. To address labor inefficiencies and safety concerns

Employee shortages, high turnover and rising costs are encouraging participants to invest in automation to support growth given the challenging labor market dynamics

Combination of high activity environments with high incidence of repetitive motions, results in more frequent and costly injuries

E-COMMERCE DEMAND DRIVES AUTOMATION INVESTMENTS AMID COVID-19

With many retail locations closed and consumers quarantining at home, e-commerce sales initially experienced rapid growth at the onset of COVID-19 stay-at-home and social distancing directives. One example of this growth was in grocery sales, a category that has been lagging others in the shift to online shopping. As in-store shopping becomes more accessible, many grocery customers have returned to their previous habits, but some have converted to online ordering and delivery, or to buying online and picking up in store or curbside. To support that increase in online ordering, grocery stores will need to invest in warehouse automation – both in mini-fulfillment operations at the stores and dedicated standalone fulfillment centers. Overall, as of the beginning of June, e-commerce spending remains up ~30% from pre-pandemic levels (last week of February), according to Signifyd.

Prior to the pandemic, most material handling product providers and system integrators experienced strong financial performance in January and February, with a robust backlog of projects bolstering performance over the last few months. As in-store retail sales bottomed and e-commerce sales soared, initially some customers deferred greenlighting new projects to expand fulfillment capacity and improve automation. Motivated by the need to support their e-commerce business and feeling more bullish about retail sales returning, those customers are now proceeding with making investments, and as a result, industry participants' pipeline and bookings are increasing. Going forward, companies will be hyper-focused on the need to have a thriving e-commerce channel – with the warehouse and distribution capabilities to support those sales.

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LINCOLN PERSPECTIVE

Looking ahead, private equity firms and corporates alike will benefit from the secular growth of e-commerce sales and the warehouse and distribution automation that enable order fulfillment. Whatever your sweet spot as an investor, there are opportunities to invest across the spectrum: from product to service, from standardized to fully customized product and from established to cutting edge technologies.

Within material handling automation, there are many middle-market participants that excel in certain product categories and/or in serving specific end-market applications. Through M&A, corporates are seeking opportunities to broaden their product capabilities to offer a more comprehensive solution and to add expertise in specific end-market applications that require specialized knowledge. For private equity investors, many of these companies have defensible market positions and all participants are expected to continue to benefit from the favorable e-commerce tailwinds.

For investors interested in participating in the material handling space, Lincoln International identified the following areas ripe for investment and consolidation.

Autonomous mobile robots: Used in numerous material handling operations, autonomous mobile robots can be used as more flexible conveyance tools, to bring shelves to the picker (as opposed to the picker walking to the shelves) or to automate tasks which traditionally would have required a forklift.

Conveyor and sortation: Products are the backbone of most warehouse and distribution automation operations. They enable the rapid movement of goods (e.g., boxes, cartons, polybags, etc.) from inventory and picking operations to shipping and loading operations.

Put-to-order and goods-to-man: These are picking solutions that use different technologies to retrieve individual items for the purpose of fulfilling an order for a customer. These technologies work collaboratively with employees to perform this function and range from minimal automation (e.g., a light on the shelf alerting the user to which item needs to be selected) to more advanced AS/RS cube solutions which deliver the item bin to the picker.

System integrators: Provide suite of services to manage a warehouse and distribution automation project from design and engineering, to implementation, to training and system acceptance by the end-user. Some system integrators are pure service companies, while others manufacture some of the equipment and controls used in the project.

Controls: Refers to the devices required to operate powered, mechanical material handling equipment. Use of controls ultimately leads to a coordinated system in terms of both material and information flow.

Infrastructure: This includes (i) vertical support structures and steel mezzanines that conveyor and sortation equipment are attached to, (ii) traditional warehousing racking and wire mesh decking products used to store goods and (iii) dock related products (e.g., pit levelers, yard ramps, etc.).

Robotics: Robotics are used in the aforementioned AS/RS solutions, as well as for picking tasks, to replace operator picking. Advancements in artificial intelligence and machine vision are broadening applications to enable robotic arms and end-of-arm tooling to pick a broader array of items.

Safety: Includes products designed to protect the physical infrastructure (e.g., pallet rack protection, dock vehicle restraints) as well as human capital (e.g., handrails, safety gates, stairs, ergonomic lift assist products, etc.).

Software: Software used to manage people, inventory, time and equipment related to picking and processing customer orders in material handling environments. These systems can coordinate with RF devices, bar-coded items, RFID, pick management, conveyor and sortation systems, etc.

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