CFRA

Industry Surveys

Commercial Services & Supplies

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CHARTS & FIGURES

NEW THEMES

What's Changed: Despite the current environment of global volatility, we expect strong core pricing to continue for the industry. Read more on our industry outlook on pages 12-13.

What's Changed: We expect Environmental & Facilities Services companies to weather the headwinds in the current macro environment better than their Industrial peers. See page 16.

EXECUTIVE SUMMARY

CFRA has a positive outlook on the Environmental & Facilities Services sub-industry and a neutral outlook on the Diversified Support Services sub-industry. Here we highlight key themes as well as our outlook and expectations for 2023.

Road to Zero-Emission Fleets

Companies in the industry rely heavily on trucks to collect waste, transfer waste, and distribute commercial laundry. Fuel price volatility can significantly weigh on companies that cannot afford to drive less in a rising fuel cost environment. Some companies are converting their fleets to compressed natural gas vehicles, but in light of President Biden's goals for net-zero carbon emissions, we expect electric trucks to dominate the industry in the next decade. Industry leaders are partnering with manufacturers to pilot electric-powered recycling and solid waste trucks. Fleet electrification is expected to accelerate as electric vehicle technology develops and becomes more economically viable. In the meantime, natural gas-powered vehicles help reduce emissions and decrease unwanted noise from large diesel trucks.

Landfill Gas-to-Energy: A Win-Win

Renewable natural gas production is becoming a key focus across the Environmental & Facilities Services sub-industry. According to the Environmental Protection Agency, solid waste landfills are the third-largest source of methane gas emissions in the U.S. Methane is not only a potent greenhouse gas, but also a primary component of natural gas. Instead of escaping into the air and contributing towards global warming, landfill gas can be captured, converted, and used as a renewable energy resource, benefiting both the environment and company profits. Industry leaders have been able to help fuel their fleet of compressed natural gas trucks by utilizing the renewable natural gas processed from their own landfills.

A Shifting Competitive Landscape

The Commercial Services & Supplies industry is relatively fragmented and extremely competitive, but we expect a gradual decline in the number of small, local companies as consolidation occurs. In North America, there are only three nationwide solid waste companies (Waste Management, Republic Services, and Waste Connections), but there are more than 20,000 regional and local companies, varying in size and financial resources. The three companies hold a combined market share of approximately 59%, while less than a quarter is held by municipalities (in which around 10,000 companies operate), according to CFRA estimates. Tuck-in acquisitions are an enduring source of growth for main industry players and should lead to continued consolidation. We expect market share for the larger names to rise in 2023. In 1995, municipalities controlled 35% of the market, but we believe their market share is now below 20%.

Recycling: Room for Improvement

China's National Sword program changed the way the global recycling industry operates. We expect the largest waste haulers to race to be the leader in innovating how the industry operates going forward. Primary steps include customer education on what is and what is not recyclable. Longer-term solutions include significant upgrades to the facilities that clean and sort collected materials. We expect investments in facility automation to ramp up in the coming years to enhance processing of recyclables, as well as reduce labor dependency. One of the largest hurdles U.S. recycling companies will face as they seek to process materials previously exported will be the high levels of contamination. Exacerbated by customer demand for single-stream collection, the level of contamination for collected materials is very high. People either recycle dirty items, broken items, or items that are not actually recyclable. Processing centers cannot clean and sort recycled items at a micro-level, so many of the items that people think are getting recycled end up in landfills. There is a lot of improvement needed from all parties involved. To compensate for people's poor recycling, many companies are shifting to a fee-based recycling service model that charges contamination fees.

CFRA Industry Snapshot www.cfraresearch.com

COMMERCIAL SERVICES & SUPPLIES

Outlook: Neutral

MARKET CAP BREAKDOWN*

RANK NO.	SUB-INDUSTRY†	MARKET CAP ($ billion)
1	Environmental & Facilities Services	145.8
2	Diversified Support Services	75.6
3	Office Services & Supplies	7.5
4	Security & Alarm Services	4.3
5	Commercial Printing	2.8

Source: CFRA, S&P Global Market Intelligence.
*Companies included in the S&P 1500 index. Market cap as of September 30, 2022.
†Refer to the Comparative Company Analysis section of this survey for companies in the sub-industries.

ETF FOCUS

VIS Vanguard Industrials	AUM ($M) 3,174.6	Expense Ratio 0.10
FXR First Trust Industrials/Producer Durables Alphadex	AUM ($M) 1,404.1	Expense Ratio 0.61
FIDU Fidelity MSCI Industrials Index	AUM ($M) 607.1	Expense Ratio 0.08
RGI Invesco S&P 500 Equal Weight Industrials	AUM ($M) 312.7	Expense Ratio 0.40
EVX Vaneck Vectors Environmental Services	AUM ($M) 77.3	Expense Ratio 0.55

BY THE NUMBERS

$11.9B
Proposed EPA budget request for FY 23

292.4M tons
How much municipal solid waste the U.S. produced in 2018

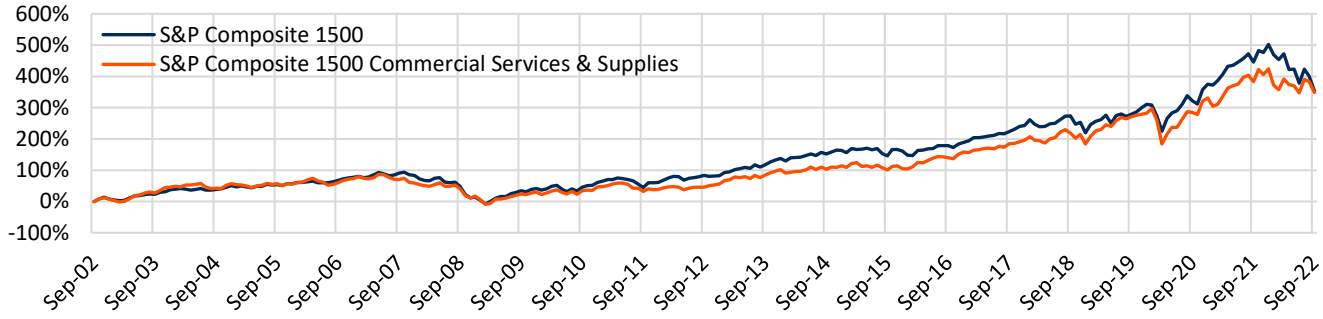
$3.61/gallon
U.S. Energy Information Administration forecast for average fuel price in 2023

15%
of annual U.S. Methane emissions derived from MSW landfills

$77/ton vs. $98/ton
September 2022 vs. September 2021 U.S. Old Corrugated Container pricing

59%
Estimated market share of top three solid waste companies

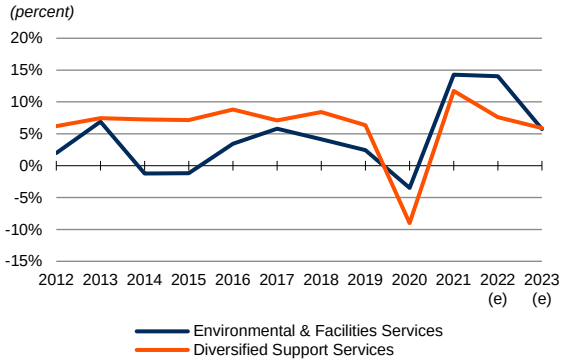
20-YEAR INDEX PERFORMANCE*



*Data through September 2022.
Source: CFRA, S&P Global Market Intelligence.

FINANCIAL METRICS

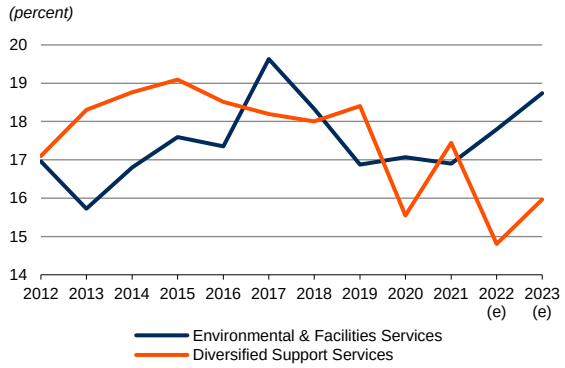
Revenue Growth



Source: CFRA, S&P Global Market Intelligence.

- We forecast revenue improvement of 14.1% in 2022, followed by 5.8% growth in 2023 for the Environmental & Facilities Services sub-industry. We expect core pricing to average between 6% and 7% in 2022, driving top-line organic growth despite moderating volume growth and a still-competitive environment.
- The Diversified Support Services sub-industry revenue is expected to increase 7.6% in 2022, followed by 5.9% in 2023, underpinned by demand recovery.

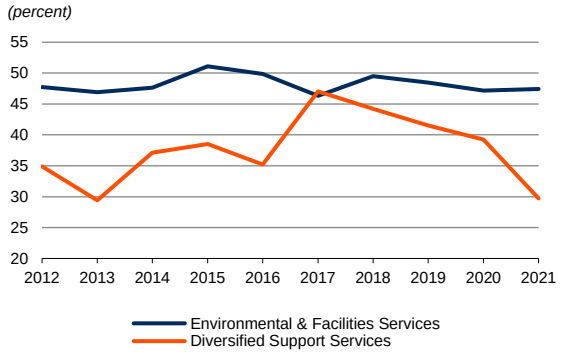
EBITDA Margin



Source: CFRA, S&P Global Market Intelligence.

- EBITDA margin for the Environmental & Facilities Services sub-industry is expected to expand in both 2022 and 2023 from a low base in 2021. We think expected strong core pricing will drive the margin expansion.
- For the Diversified Support Services sub-industry, EBITDA margin is likely to narrow significantly in 2022 amid higher input costs from inflation. We see EBITDA margin improving in 2023 on softer inflationary pressure.

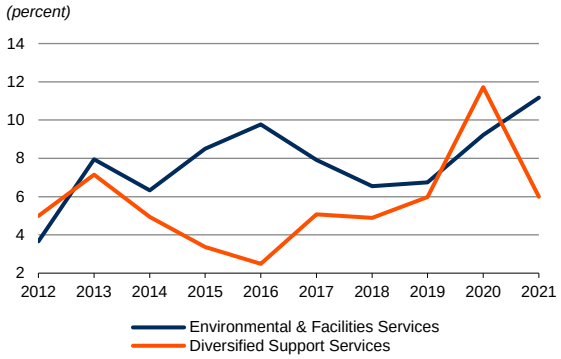
Long-Term Debt-to-Capital



Source: CFRA, S&P Global Market Intelligence.

- The long-term debt-to-capital ratios of both sub-industries started to diverge in 2017, primarily due to declining margins in the Diversified Support Services sub-industry.
- We expect the ratio to be volatile for both sub-industries, driven by companies' efforts in debt reduction to maintain their dividend levels and M&A activity where deals are frequent but lower in transaction value versus recent years.

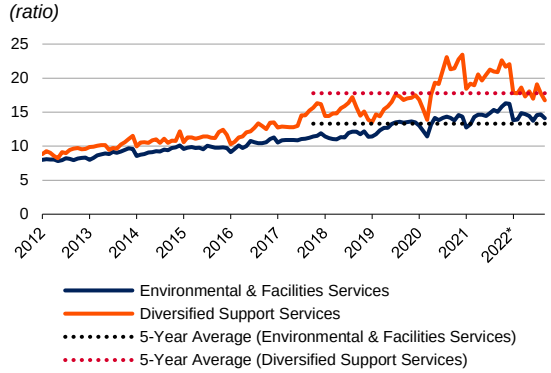
Free Cash Flow Margin



Source: CFRA, S&P Global Market Intelligence.

- Free cash flow (FCF) margin for the Environmental & Facilities Services sub-industry improved to 11.2% in 2021 from 9.2% in 2020 due to demand recovery. We expect FCF margin for the sub-industry to drop in 2022 due to continuous working capital expansion, given the sub-industry is generally less concerned over recession risk.
- FCF margin for the Diversified Support Services sub-industry in 2021 dropped to 6.0% from 11.7% in 2020 due to increased working capital, despite an improvement in EBITDA margin. The sub-industry's FCF margin in 2022, however, is likely to expand as companies hit brake pedals on working capital expansions amid heightened recession risk.

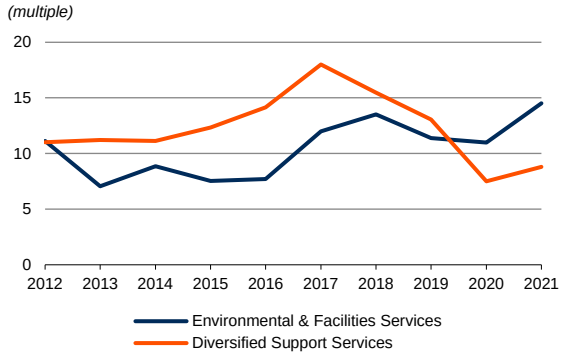
Enterprise Value (EV)-to-Forward EBITDA



*Data through September 2022.
Source: CFRA, S&P Global Market Intelligence.

- As of the end of September 2022, the EV/EBITDA multiples for both sub-industries were trading fairly close to their five-year averages. We see these multiples falling more in line with historical averages heading into 2023 as EBITDA margins widen.
- Y/Y through September, the average EV/EBITDA multiple for the Environmental & Facilities Services sub-industry decreased 6.3% to 14.1x. The Y/Y average EV/EBITDA multiple for the Diversified Support Services sub-industry experienced a 19.7% decline to 16.7x.

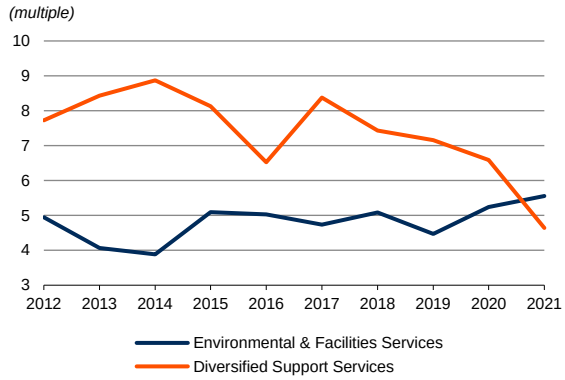
Return on Equity (ROE)



Source: CFRA, S&P Global Market Intelligence.

- The median ROE for the Environmental & Facilities Services sub-industry increased to 14.5% in 2021 compared to 11.0% in 2020 as demand improved. We expect ROE for the sub-industry to further improve in 2022 given the healthy revenue growth and EBITDA margin outlook.
- Similarly, the median ROE for the Diversified Support Services sub-industry improved to 8.8% in 2021 compared to 7.5% in 2020. The ROE of Diversified Support Services is likely to remain below pre-pandemic levels amid higher input costs from inflation.

Return on Assets (ROA)



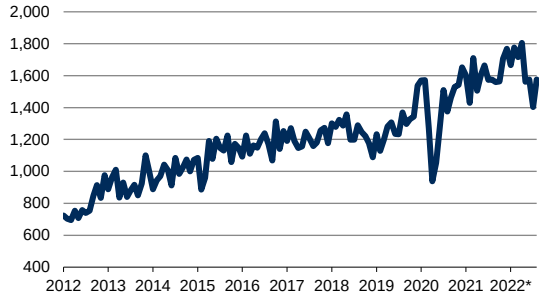
Source: CFRA, S&P Global Market Intelligence.

- The median ROA for the Environmental & Facilities Services sub-industry increased to 5.6% in 2021 compared to 5.2% in 2020. Similar to the ROE, we expect the ROA of Environmental & Facilities Services to improve in 2022 given the healthy revenue growth and EBITDA margin outlook.
- For the Diversified Support Services sub-industry, median ROA declined to 4.6% in 2021 from 6.6% in 2020 as the growth in assets outpaced net profit. We also see a below-average ROA in 2022 for Diversified Support Services given the margin pressure from high input costs.

KEY INDUSTRY DRIVERS

U.S. Housing Starts

(seasonally adjusted annual rate, in thousands)

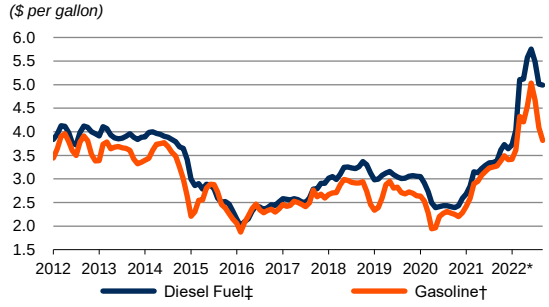


*Data through August.
Source: U.S. Census Bureau.

- Residential contracts grant the waste hauler exclusive rights to service all or part of a municipality's jurisdictions. Residential customers usually have little say in which company collects their waste, as municipalities or regional authorities generally grant the contracts.
- Action Economics forecasts seasonally adjusted U.S. housing starts to decline 1.4% in 2022 and 5.1% in 2023 amid interest rate hikes and slowing economy. We note that there is a divergence between housing starts and the sub-industries' revenue growth forecasts. We think it can be largely explained by the record level pricing and/or the worst inflationary environment in decades.

U.S. Fuel Prices

($ per gallon)

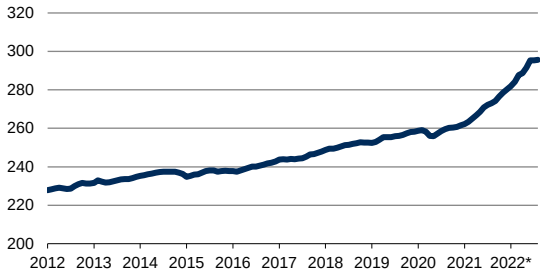


*Data through September.
†Retail prices of all formulations. ‡U.S. No. 2 diesel fuel.
Source: U.S. Energy Information Administration.

- The price of diesel fuel averaged $3.28/gallon in 2021, up 28.4% compared to 2020, and the average price of gasoline increased 36.8% to $3.09/gallon during the same period.
- The U.S. Energy Information Administration (EIA) expects diesel fuel prices to increase 51.7% to $4.99 and gasoline prices to increase 31.8% to $3.61 in 2022, as fuel prices have been pushed to record high levels on Russia's invasion of Ukraine.

U.S. Consumer Price Index

(all items in U.S. city average, all urban consumers, seasonally adjusted; 1982-84=100)



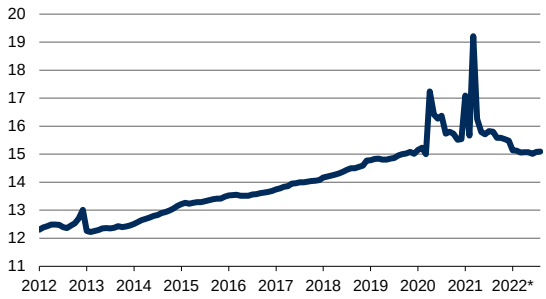
*Data through August.

Source: U.S. Bureau of Labor Statistics.

- In 2021, the seasonally adjusted U.S. Consumer Price Index (CPI) averaged 271, up 4.7% compared to 2020.
- Action Economics projects CPI to grow 7.9% in 2022 and 3.4% in 2023.
- CFRA thinks inflation will likely remain sticky in the second half of 2022 as rising food and shelter prices offset recent declines in oil prices.

U.S. Real Disposable Personal Income

(trillions of chained (2012) dollars, seasonally adjusted annual rates)



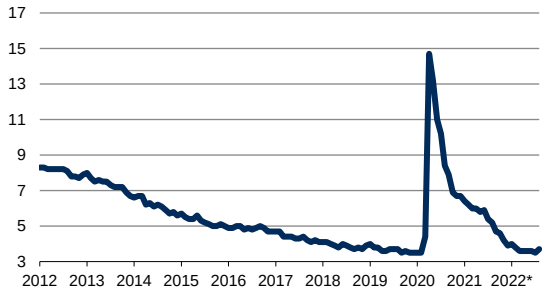
*Data through August.

Source: U.S. Bureau of Economic Analysis.

- In 2021, the seasonally adjusted U.S. real disposable personal income rose 1.9% to an average of $16.1 trillion, from $15.8 trillion in 2020.
- According to Action Economics estimates, U.S. real disposable personal income is projected to decline by 0.5% in 2022, impacted by the end of government supports in 2021, followed by a 4.4% increase in 2023 on job market tightness.

U.S. Unemployment Rate

(percent)



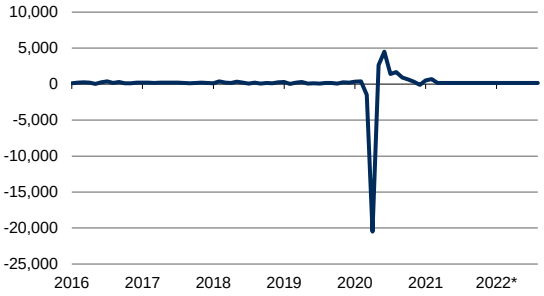
*Data through August.

Source: U.S. Bureau of Labor Statistics.

- A lower unemployment rate drives increased demand for uniform services, which is a positive catalyst for the Diversified Support Services sub-industry.
- The U.S. unemployment rate averaged 5.4% in 2021, compared to an average of 8.1% in 2020. Action Economics expects the rate to decline to 3.7% in 2022 and 3.8% in 2023.

Change in U.S. Nonfarm Payrolls

(Monthly avg. change in thousands, seasonally adjusted)



*Data through August.

Source: U.S. Bureau of Labor Statistics.

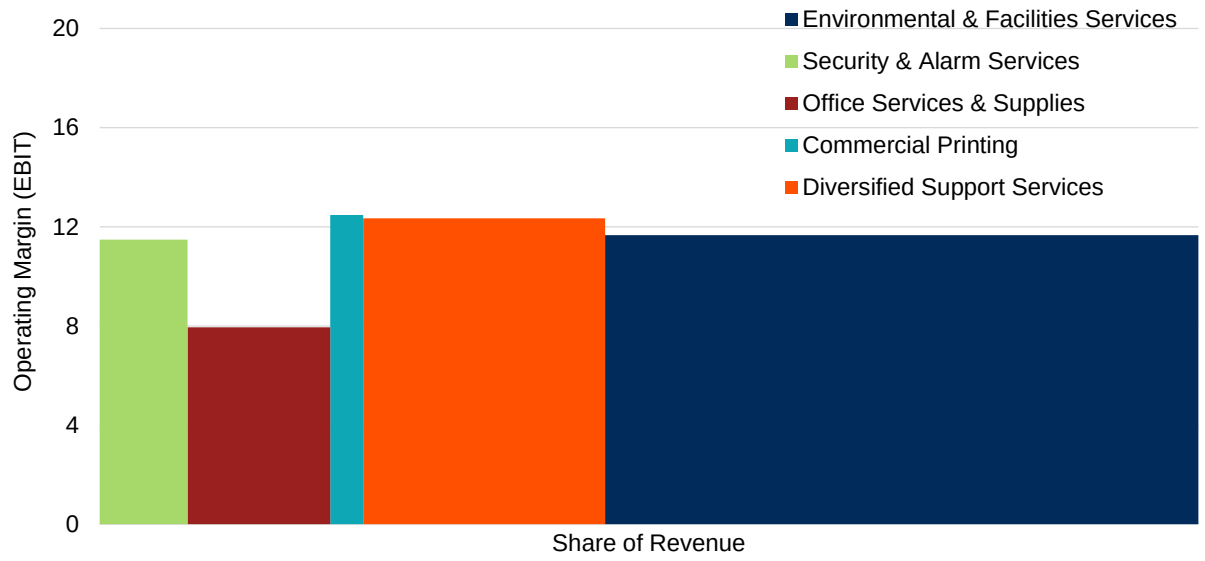
- The change in Nonfarm Payrolls measures the change in the number of people employed in a month compared to the previous month, excluding the farming industry. Job creation is the foremost indicator of consumer spending, which accounts for the majority of economic activity.
- The U.S. monthly nonfarm payrolls change averaged 562,000 in 2021, compared to the average of -774,000 in 2020. Action Economics expects the monthly payrolls to average 346,000 in 2022 and 130,000 in 2023.

INDUSTRY TRENDS

PROFIT SHARE ANALYSIS

The Environmental & Facilities Services sub-industry has the largest share of Commercial Services & Supplies Industry revenue at 53%, followed by the Diversified Support Services sub-industry at 22%. However, in terms of earnings before interest and tax (EBIT) margins, the Commercial Printing sub-industry posts the highest margins out of all sub-industries within the Commercial Services & Supplies industry.

PROFIT-POOL MAP OF COMMERCIAL SERVICES & SUPPLIES INDUSTRY
(data based on calendar year of 2021)



Source: CFRA, S&P Global Market Intelligence.

LARGEST FIVE COMPANIES BY MARKET CAPITALIZATION FOR EACH SUB-INDUSTRY*

Environmental & Facilities Services				Diversified Support Services				Office Services & Supplies			
Rank No.	Company	Market Cap ($ billion)	Share (%)	Rank No.	Company	Market Cap ($ billion)	Share (%)	Rank No.	Company	Market Cap ($ billion)	Share (%)
1	Waste Management	2.5	1.7	1	Cintas	39.4	52.1	1	MSA Safety	1.1	14.6
2	Republic Services	6.0	4.1	2	Copart	25.3	33.4	2	Herman Miller	0.5	7.1
3	Rollins	0.3	0.2	3	UniFirst	0.9	1.2	3	HNI	1.2	15.7
4	Stericycle	43.0	29.5	4	KAR Auction Services	4.3	5.6	4	Interface	4.3	57.1
5	Tetra Tech	17.1	11.7	5	Healthcare Services Group	1.3	1.7	5	Pitney Bowes	0.4	5.4
0	Others	77.0	52.8	0	Others	4.5	5.9				
	Total	**145.8**			**Total**	**75.6**			**Total**	**7.5**	

*Data as of September 30, 2022.
Source: CFRA, S&P Global Market Intelligence

INDUSTRY OUTLOOK AND PROFITABILITY OVERVIEW

Our positive 12-month fundamental outlook for the Environmental & Facilities Services sub-industry is based on our view that the companies in the sub-industry are defensive compared to the greater market, which we view as a positive in the current environment where we see global volatility amid rising interest rates and persistent inflation. We expect robust core pricing to continue despite a still-competitive environment, subsequently driving top-line organic growth and margin expansion. We expect the impact of recycling commodity prices on profitability to be lower in the coming years as companies optimize pricing,

become better at managing recycling operating costs, and transition to a fee-for-service model. The headwinds from recycling commodity prices will be minimal, with the possibility that prices will be a tailwind for some companies. We do not expect China's import ban to be reversed. We look for solid free cash flow generation to be targeted for share repurchases, debt reduction, strategic "tuck-in" acquisitions, and dividend increases.

In our view, the largest North American waste haulers will continue to divest underperforming assets and make selective, accretive acquisitions while seeking to enhance customer service as an incentive to maintain a high retention rate. We expect construction and demolition volume to moderate in 2023 as housing starts begin to slow on higher interest rates, partially offset by an expected uptick in infrastructure activity off of federal stimulus. Although landfill capacity averages more than 20 years, landfill prices (landfills tend to generate high margins) should rise over the next few years, as more third-party waste is disposed of in the largest haulers' landfills. In the longer term, we see a growing environmental trend from the conversion of methane gas from landfills into energy.

Competitive Environment

Below, we use the Porter's Five Forces framework as a tool to analyze the competitive environment of the Environmental & Facilities Services and Diversified Support Services sub-industries.

Porter's Five Forces Analysis	
Degree of Rivalry/ Competition	**Environmental & Facilities Services (High)** Waste Management, Republic Services, and Waste Connections all compete on a nationwide basis. They represent 59% of the total market share according to our estimates. Industry competition is still intense despite recent consolidation. While the big 3 dominate in market share, there is still fierce competition from regional companies, local companies, and municipalities. Competition from the smaller regional and local companies is much more pronounced at a local level. Municipalities often have financial advantages from tax revenue and tax-exempt financing. Pricing and service quality are the basis for industry competition. Costs for operation, disposal, and collection can vary widely across regions. The prices that firms can charge depend on weight and volume of waste, type of waste, collection frequency, distance to disposal sites and transfer stations, labor costs, equipment provided to customers, and variety of services available. There is also intense competition related to sustainability. Companies are investing in green technology to differentiate themselves from the competition. **Diversified Support Services (High)** The Diversified Support Services sub-industry is highly concentrated. There are several niche players within the sub-industry that serve disparate end markets, ranging from online car auctions to nursing home furnishing and event planning. However, approximately 58% of the sub-industry's market capitalization is from companies such as Cintas Corp., Healthcare Services Group, Inc., and UniFirst Corp., which derive most of their revenue from industrial laundry and linen supply services. Competition also comes from large institutions with their own on-premises laundry services. Uniform rental services are highly competitive, with a high degree of price elasticity.

	Demand for linen supplies is dependent on the overall health of the economy and employment trends, as increases in employment lead to higher demand for uniforms and garments. In addition to uniforms, many larger companies (such as Cintas) offer ancillary products such as mats, towels, restroom supplies, first aid products, fire protection products, and document management services.
Bargaining Power of Customers	**Environmental & Facilities Services (Medium)** Customers for municipal solid waste (MSW) firms include residential generators (single-family homes, apartments, townhomes, etc.) and commercial generators (businesses, restaurants, churches, schools, hotels, etc.). Different MSW firms provide services to different geographical areas. Residential customers usually have little say in what company collects their waste. The MSW firms usually have contracts with the city/county, neighborhood, or property management. Firms compete for these contracts based on pricing and products and services offered. Competitive pricing and discounts to current customers help firms retain customers as contracts near expiration. **Diversified Support Services (High)** Customers for the Diversified Support Services sub-industry include hospitals, hotels, restaurants, manufacturing plants, universities, and construction crews. Due to the low switching cost, customers for this sub-industry are price-sensitive, leading to competitive pricing and discounts. CFRA estimates that there are more than 400 smaller laundry service businesses, many of which serve a limited number of markets. Contracts of the laundry service business typically cover a three- to five-year term.
Bargaining Power of Suppliers	**Environmental & Facilities Services (Low)** There are many suppliers for MSW firms and environmental services firms. The overall power of suppliers is diluted, and bargaining power is low. Suppliers who do have dominant position or power over MSW firms are able to charge higher prices. Higher prices can decrease margins and profitability. MSW firms can combat these pricing pressures by building relationships and supply chains with different suppliers. MSW firms can also combat supplier power by designing products that can use different input materials and raw materials. Therefore, if pricing appreciates for a specific input, there might be other options at a lower cost. **Diversified Support Services (Low)** Firms in this sub-industry generally have low supplier switching costs, as inputs (labor force, detergents, uniforms, etc.) are easily available in the market. Many linen and uniform supply companies source uniforms and textile products from international suppliers in China, Mexico, Vietnam, and Cambodia. However, companies that adopt more technologically advanced equipment (such as machine-to-machine communication, global positioning system [GPS], and radio frequency identification [RFID] tracking technology, etc.) might have higher cost of switching to other equipment.

Threat of Substitutes	**Environmental & Facilities Services (Low/Medium)** The major MSW firms all offer very similar products and services. Service contracts provide protection against the constant threat of substitutes, but as the contracts near completion, the threat of substitutes increases. Firms can fend off substitutes or win contracts over other firms by offering new innovative products and services. A focus on customer service can be a key differentiator for MSW firms. Corporate social responsibility and environmental sustainability can also set firms apart from the consumers' perspective. **Diversified Support Services (Medium)** Firms in this sub-industry provide differentiated services. Hence, the threat of substitutes varies across each line of service. The threat of substitutes is moderate for commercial laundry and uniform services. Large hotel, hospital, and restaurant chains could bring their laundry in-house (provided it is cheaper to do so), thereby eliminating the need for commercial laundry services. Meanwhile, the threat of substitutes for uniform and linen supplies is typically low in a booming economy but will intensify during a recession as customers would reduce orders and shift to cheaper products at the expense of quality.
Threat of New Entrants or New Entry	**Environmental & Facilities Services (Low)** Environmental & Facilities Services firms experience stable demand and high barriers to entry. A potential new entrant would need to obtain proper permits and prove adherence to environmental regulation to begin competing with the big public firms and local municipalities. Ever-changing regulations and standards make it challenging for new firms to get a foot in the door. Both waste collection and landfill operations are protected by barriers, such as service contracts, landfill use approval, and municipal agreements. Fixed costs are also quite high. New entrants must compete with the large networks of companies like Waste Management, Republic Services, and Waste Connections. These large firms excel at gaining market share via acquisitions of smaller competitors. New firms do have the opportunity to introduce new products, services, or innovative technologies, though. They can pressure larger firms through lower pricing and lower costs. Established firms can keep barriers high if they dedicate focused efforts to research and development. **Diversified Support Services (High)** While the largest companies enjoy economies of scale with centralized laundry plants, newer companies must carve out a niche in specialized garments or establish domicile close to key customers. Capital requirement is moderate, with majority of the investments in laundry equipment and water recycling technology (water is one of the largest cost components for the sub-industry).

Operating Environment

Red Hot Inflation

Due to the defensive nature of the sub-industry, we expect Environmental & Facilities Services companies to weather many of the headwinds in the current macro environment better than their Industrial peers. Persistent multi-decade high inflation has resulted in a significant degree of economic uncertainty, a scenario where defensive companies tend to perform relatively well. Elevated fuel costs have been a primary pressure on margins within the sub-industry, though these costs have begun easing. Firms have been implementing price increases to offset impacts, which should help to facilitate margin expansion. Strength in the U.S. labor market continues with a low unemployment rate, an elevated number of job openings, and more people entering the workforce, which is benefiting demand for Diversified Support Services. Most of the dominant firms in the sub-industry have maintained a normal cadence of merger and acquisition (M&A) activity, and for some companies, M&A is above normal levels. CFRA expects increased M&A targeting local uniform providers as well as benefits from increased sales of safety products and services.

Regulation from China Shakes up the Recycling Business Model

It is no surprise that the recycling business is cyclical, with margins falling as commodity demand and prices fall because recycled items are sold as commodities. However, the 2018-2019 bear market in commodities was especially tough on the Environmental & Facilities Services sub-industry. After recycled items are sorted, they are baled and sent to manufacturers, many of which used to be in China. Now, China has significant import bans on recycled materials. This ban led to a significant decline in recycling commodity prices in 2018 and much of 2019. CFRA expects recycling commodity prices to be a modest headwind to earnings in 2023 as prices continue to downtrend from the highs reached earlier in 2022.

Consumer behavior, including an evolving mix of recycled materials and improper consumer recycling practices, also hurts the industry. Plastics have lower margins because the vast differences between types of plastic containers require more sorting. In 2018 (latest available), paper and paperboard accounted for 68.2% of all recycled MSW, while plastic comprised only 8.7%, according to the EPA. In addition, manufacturers are producing output more efficiently while using less material. This leads to higher processing costs, as more volume is needed to produce a one-ton bale of raw recycled material. In addition, many consumers contaminate the recycling stream by putting solid waste or other unrecyclable items into recycling bins, which greatly increases the costs for the industry, as it leads to additional sorting and downtime in recycling facilities.

In early August 2018, China announced that it would impose a 25% tariff on U.S. scrap metals, waste papers, and plastics arriving in China starting August 23, 2018, in retaliation to the U.S. trade measures against the country. CFRA expects the U.S. recycling market to stabilize while the U.S. recyclers make progress in exporting to alternative end-markets for recyclable materials.

In July 2018, Vietnam stopped issuing new licenses for scrap imports, while Taiwan limited the types of materials it imports starting in October 2018. Malaysia and India emerged as two of the largest U.S. plastic scrap importers in 2018, following China’s scrap import ban. India prohibited the import of plastic waste on March 1, 2019, yet partially lifted the ban in 2022. In 2018, Malaysia had announced its plans to phase out all plastic imports by 2021, and has implemented bans in the state of Selangor in May 2022 (although it is still a plaster importer as of September 2022). In September 2022, Thailand announced a two-phase import ban, with the first phase commencing in 2023 to limit the amount of imported scrap based on

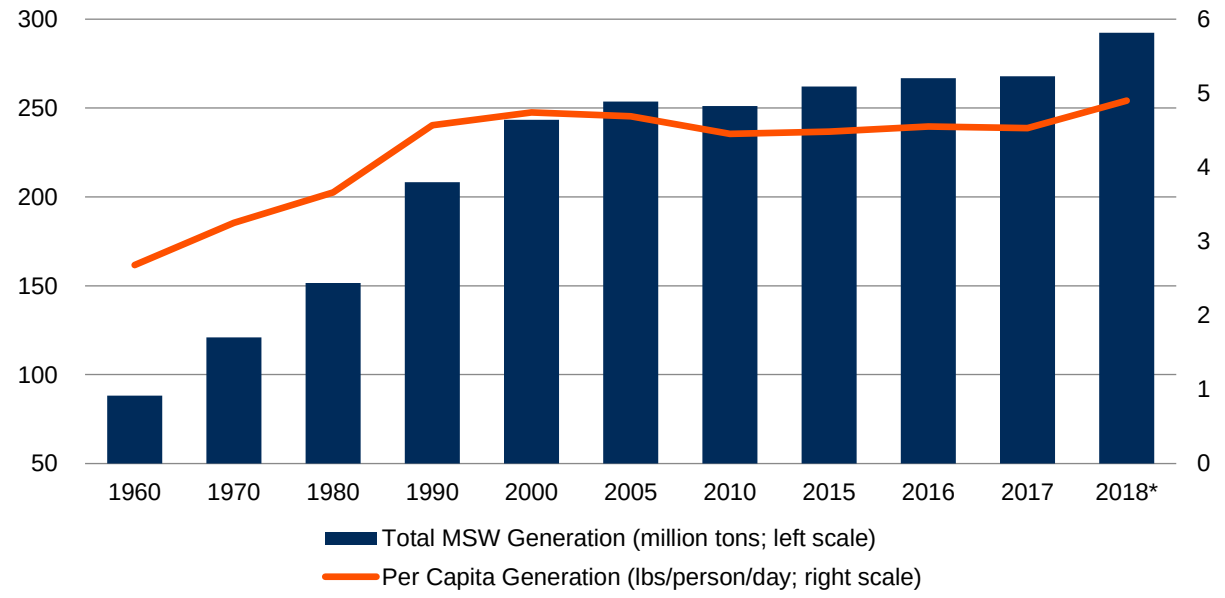
production capacities, followed by a second phase in 2024 where only 50% of imports will be permitted, and a completely ban in 2025.

Recycling providers are also updating the structure of their contracts to include fees for fluctuating commodity prices and for customer contamination levels. Companies see these fees as near-term temporary solutions. The long-term goal is to significantly improve recycling plants and the output they produce. In April 2019, Republic Services opened a “next-generation” recycling facility in Texas, establishing itself as an industry leader for change in the recycling operating model. The new facility shifts from the traditional materials recovery facility (MRF), where non-recyclable items are removed to a “positive-sort” configuration, to a new processing technology that extracts recyclable items (producing higher quality products with less labor).

That’s a Lot of Trash

In 2018 (latest available), about 292.4 million tons of MSW were generated in the U.S., according to the “Advancing Sustainable Materials Management: 2018 Fact Sheet” released by the U.S. Environmental Protection Agency (EPA) in November 2020.

MUNICIPAL SOLID WASTE GENERATION RATES—1960 to 2018*



*Latest available.

Source: U.S. Environmental Protection Agency.

Although the number of landfills in the U.S. has dropped considerably—from 7,924 in 1988 to about 2,600 in December 2019—the average size (measured by disposal volume) has increased significantly as new, larger facilities replace older, smaller ones. However, a rise in recycling and other programs means that more trash is being diverted away from traditional landfills. A large portion of the waste goes to material recovery facilities and waste-to-energy (WTE) plants, while more electronic waste (e-waste) is returned to manufacturers and more organic waste is composted. In 2018, the total MSW managed amounted to 292.4 million tons, of which the majority (50%) was managed at landfills, 23.6% was recycled, 8.5% was composted, and 11.8% went to combustion for energy recovery, according to the EPA’s “Advancing Sustainable Materials Management: 2018 Fact Sheet”.

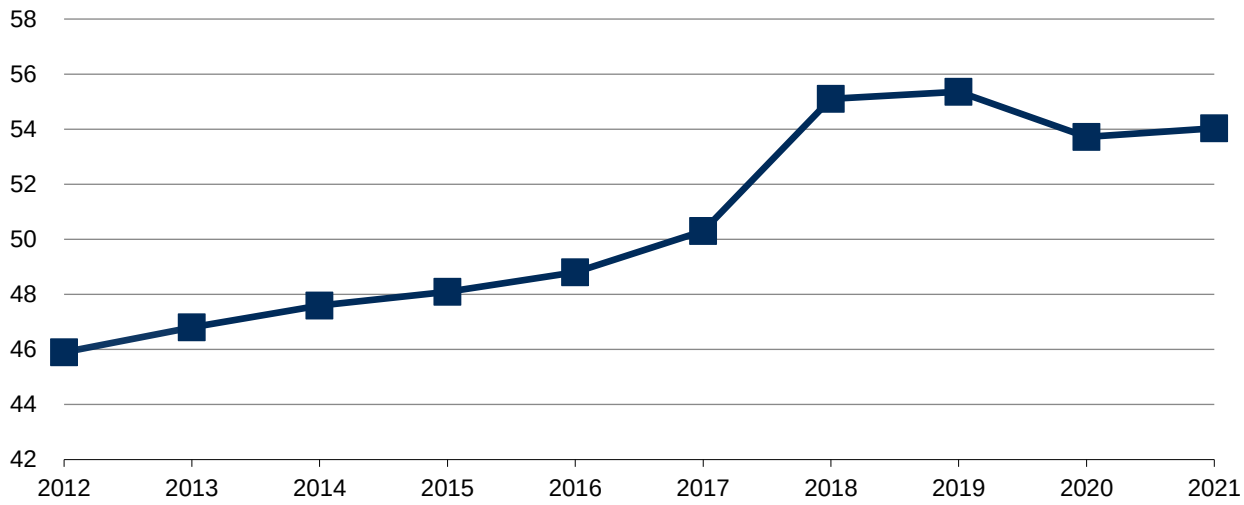
Landfills are Lucrative

Total landfill capacity in the U.S. is projected to fall by about 15% from 2018 to 2023, with only 17 years of landfill capacity remaining by 2023, according to industry data and news provider *Waste Business Journal*.

The cost of developing landfills has risen dramatically over the years, and with more attention on global warming, sources of greenhouse gases are increasingly scrutinized. Landfill gas (LFG) is made up of roughly 50% methane gas (the primary component of natural gas), 50% carbon dioxide, and a small amount of non-methane organic compounds, according to the EPA. In the past, the main concerns about landfill development were groundwater protection and traffic. In the 1980s and early 1990s, landfill development slowed as recycling programs were expected to reduce the need for landfill space. New technology is being used to expand the remaining life of landfills. Bioreactor technology, for example, which rapidly breaks down organic waste by adding liquid and air to the entombed waste, can increase the airspace in a typical landfill by 10%–15%. Compactors are also being used to condense waste.

The remaining landfill capacity of leading waste management firms has increased since 2000, even though the number of landfills has fallen. The average landfill tipping fee was $54.03 a ton in 2021, up 0.6% from the previous year. A tipping fee, also called a disposal fee, is paid by anyone disposing of waste at a landfill. The tipping fee had an average growth rate of 2.1% between 2017 and 2021. CFRA expects this trend to continue in 2023. Increased waste generation per capita and slowing approval of increased landfill capacity could accelerate the increase in landfill costs, according to *Waste Business Journal*.

NATIONAL LANDFILL TIPPING FEES
($ per ton)



Source: CFRA, EREF, Waste Business Journal.

Electronic Waste is a Growing Concern

The growing volume of e-waste, especially that which is improperly disposed of, is a major concern. Electronic waste includes computers, fax machines, televisions, cell phones, routers, etc. About 53.6 million metric tons of e-waste were estimated to have been generated globally in 2019 (latest available), up 21% in just five years, of which the U.S. accounted for 24%, according to the "Global E-Waste Monitor 2020" released by the International Telecommunication Union (ITU), a specialized agency for information and communication technologies under the United Nations (UN). The volume is expected to surpass 111.0 million metric tons per year by 2050, according to UN estimates. CFRA expects global e-waste volumes to increase significantly over the next five years, driven primarily by the rollout of 5G networks, as devices without 5G compatibility will soon be replaced by the newer 5G compatible gadgets.

According to the National Conference of State Legislatures (NCSL), legislation for e-waste disposal usually follows two basic models. The first model, known as the extended producer responsibility model, requires the manufacturer to be responsible by paying to collect and recycle the products covered under the respective state law. Under the second model, known as the advanced recycling fee model, consumers pay retailers a fee of $6-$10; those fees are channeled into a statewide recycling fund.

Some brands (Best Buy, Dell, and Apple) and cell phone carriers have launched buyback, mail-in, and trade-in programs to encourage consumers to recycle e-waste. Some cities also promote e-waste recycling. Aside from passing a law banning the disposal of electronic devices in trash cans, New York City, for example, partnered with Electronic Recyclers International to promote the e-cycle NYC program. The program, which provides bins for electronic waste that are then collected for recycling, was expanded in December 2015 beyond the initial participating residential buildings. To date, 25 other states and the District of Columbia have passed e-waste recycling laws, according to the EPA.

Industry Shift to Compressed Natural Gas Vehicles

The rising cost pressure of diesel-fueled fleets is prompting more waste haulers to convert to vehicles powered by cleaner alternative fuels, such as compressed natural gas (CNG). Some larger companies are even investing in their own filling stations to save costs and improve operational efficiencies.

The spurt in U.S. natural gas production due to hydraulic fracking has made CNG a far more attractive alternative for companies in various industries. Natural gas burns cleaner than diesel fuel and provides a much quieter ride. Transit buses form the largest market for natural gas-powered heavy-duty vehicles in the U.S., followed by waste haulers, according to Energy Vision, a nonprofit group working toward greater use of natural gas.

Waste Management is the most prominent example of waste haulers adopting cleaner fuels to run their garbage truck fleets. The company started migrating its fleet to liquefied natural gas (LNG) in 2000 and converts landfill gas into LNG to fuel its fleet. Waste Management has the largest alternative fuel fleet in North America. As of December 2021 (latest available), the company operated 10,832 gas alternative fuel vehicles and 176 natural gas fueling stations. Waste Management expects to have 70% of its fleet running on alternative fuel and 50% of the alternative fuel vehicles to run on renewable natural gas by the end of 2025, as reported in its February 2022 “Investor Presentation on ESG Performance” report. Every diesel-to-natural gas vehicle conversion reduces diesel use by an average of 8,000 gallons per year and cuts greenhouse gas emissions by 16%, according to Waste Management. Republic Services is another company working toward converting its fleet to CNG. Republic Services currently has roughly 21% of its fleet running on CNG and is one of the largest vocational CNG fleet operators in the U.S. CNG vehicles accounted for 13% of the company’s replacement vehicle purchases in 2021. As of December 2021 (latest available), Republic Services operated 40 CNG fueling stations.

Severe Weather Impacts Affect the Entire Industry

According to the World Meteorological Organization, there has been a significant increase in the societal impact from tropical storms due to population and infrastructure increases in coastal areas. Companies in the municipal solid waste business experience both positive and negative impacts because of stronger-than-average hurricane seasons. Immediately following a large storm, companies that collect waste in an affected area may experience some temporary suspension of operations and increased subcontractor costs. A recent example is Hurricane Ian, which is estimated to cause between $55 billion and $75 billion in damage. As affected areas move past the initial clean-up and then onto the longer process of rebuilding, trash haulers have historically seen more pronounced revenue growth. These increased revenues lead to stronger earnings and comparatively lower margins due to higher sequential disposal and subcontracting costs to accelerate the clean-up process.

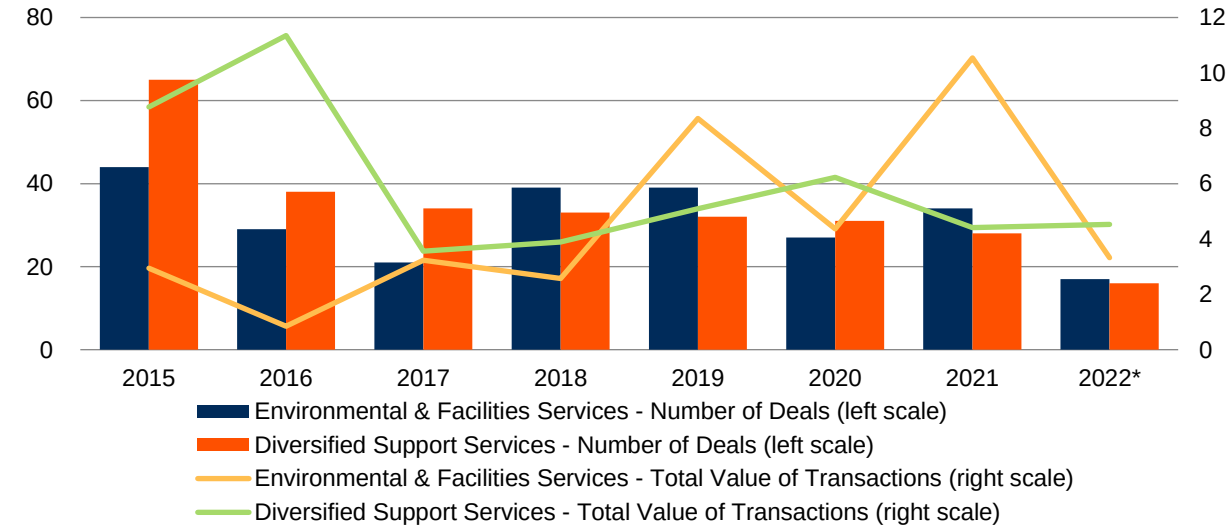
Tropical Storm Risk (TSR) forecasts a slightly above the 1991-2020 30-year norm level Atlantic hurricane season in 2022. In its “August Forecast Update for North Atlantic Hurricane Activity in 2022”, TSR predicts that a total of 17 named storms, 8 hurricanes, and 3 intense hurricanes will develop in the 2022 storm season.

M&A Environment

While the Commercial Services & Supplies industry remains relatively fragmented and highly competitive, it continues to consolidate. In North America, there are only three nationwide solid waste companies (Waste Management, Republic Services, and Waste Connections), but there are more than 20,000 regional and local companies, varying in both size and financial resources. The industry has a market size of $58 billion, according to Statista. Market leaders Waste Management, Republic Services, and Waste Connections hold a combined market share of approximately 59%, while around a quarter is held by municipalities (in which around 10,000 companies operate), according to CFRA estimates. Since 1995, the market share of municipalities has dropped below 20% in a privatization trend we see continuing in the future. With the entrance of the Internet of Things (IoT) into the waste and recycling markets, companies are using technologies to better manage waste collection and recycling. CFRA believes the pace of M&A activity will continue in 2022 and into 2023, fueled by labor availability challenges and higher fuel costs. We expect most of these transactions to be small tuck-in acquisitions to expand regional services. Fuel cost and labor pressures are more detrimental to smaller regional firms, making them good tuck-in acquisition targets for large companies.

The chart below details M&A activity over the last several years.

MERGERS & ACQUISITIONS ACTIVITY
(number of deals) *(in billions, $)*



*Data through September 2022.

Source: CFRA, S&P Global Market Intelligence.

CFRA anticipates continued acquisition activity in the industry, particularly among the smaller regional and local players. Additionally, Waste Management, Republic Services, and Waste Connections are anticipated to remain opportunistic within the industry.

Regulatory Updates

On January 20, 2021, newly elected President Biden rejoined the Paris Climate Agreement as one of his first acts since his election. Rejoining the agreement is an important step in achieving zero greenhouse gas emissions from the electric sector by 2035 and making the U.S. carbon-neutral by 2050—two of President Biden's campaign pledges.

Unlike rejoining the Paris Climate Agreement, changes to other rules and regulations for the industry will likely take longer to implement or reverse. During former President Trump's term, many rules and regulations on air, water, public lands, and climate change were rolled back or weakened. Some of these changes could take two or three years to implement. Changes must be made carefully. When Congress is used to clear a regulation, the administration can no longer implement a similar rule, whether it is more or less stringent. Changes will likely be more challenging than when Trump rolled back Obama-era regulation because the EPA budget has been scaled back over the last several years.

The proposed EPA budget for 2023 is $11.9 billion of funding. If passed, it would be the largest budget in EPA history, demonstrating the administration's acknowledgment and focus on combating climate change. With this budget, the EPA will focus on tackling climate change through water infrastructure investment, reduction in air pollution, acceleration of site cleanups, and research.

Many of President Biden's campaign platform priorities support electrification and emission-free technologies. The platform highlights the need to build a stronger manufacturing base for electric vehicles (EVs) and raise the standards for clean trucks. The platform also sets an aggressive (in our view) goal to achieve net-zero greenhouse gas emissions by 2035. To support these goals, Biden plans to increase government investments in EV infrastructure and research. We think this support will be vital in getting more EV trucks, machines, and locomotives to market in a shorter time frame. Below, CFRA outlines our forecast for when benefits for certain priorities might be implemented and noticeable.

Platform Priority	Benefit Timing
Tax Incentives to Stimulate EV Supply & Demand	
Tax credits to encourage the consumer to purchase more EV	Immediate
Tax benefits to manufacturers for increased production of EV	Immediate
Switch Government Fleet to EV	
Buses, mail trucks, etc.	3-5 years
Goal of zero emission public transportation in all cities with population over 100k	4+ years
Increase Investment in EV Infrastructure	
Charging stations available in 500,000+ new locations	1-3 years
Support continued research on battery technology	Ongoing
Invest in resilient, sustainable, and inclusive infrastructure	
Railroad Revolution: Invest in passenger and freight systems to reduce pollution	4+ years
Build a Modem Electric Grid	4+ years

The Infrastructure Investment and Jobs Act (IIJA), which was signed into law in November 2021, allocates $550 billion of supplementary funding to critical U.S. infrastructure projects over the next five years. The IIJA is in line with President Biden's campaign platform priorities, which emphasize investment in infrastructure related to EVs, power grid, clean water, and roads and rails. These investments will provide additional growth opportunities for waste service providers, as an uptrend in infrastructure development activity will support construction and demolition related volumes. $375 million of IIJA funding is being allocated to support and modernize municipal waste management infrastructure and recycling programs.

HOW THE INDUSTRY OPERATES

Environmental & Facilities Services

Companies in the Environmental & Facilities Services sub-industry collect, treat, and dispose of hazardous and nonhazardous waste as well as recyclable materials. Nonhazardous waste includes municipal solid waste (*i.e.,* household waste or garbage) and industrial and commercial waste. This sub-industry includes transfer stations and landfills. Transfer stations are facilities to which solid waste is transferred from collection vehicles to long-distance vehicles for transport to disposal facilities.

The market for skilled labor in the waste management business is tight, and unions represent many workplaces. Companies within the sub-industry are generally vertically integrated, focusing on acquisitions within their core businesses and areas of specialization. Customers include large municipalities and major U.S. corporations, as well as individual residences.

The Environmental & Facilities Services sub-industry is generally resistant to recession. Historically, the sub-industry has grown in line with GDP.

The MSW Operating Cycle

Commercial municipal solid waste (MSW) collection services are generally performed under one- to three-year service contracts. Contracts for residential services typically cover a one- to five-year term and are usually granted by municipalities or regional authorities. Municipal contracts are generally awarded to the lowest bidder.

Commercial accounts offer high profit margins because they involve larger volumes than residential accounts do and are therefore more favorable to waste haulers, according to waste management magazine *Waste 360*. Between 35% and 45% of MSW comes from commercial establishments such as retail stores and restaurants, according to the U.S. Environmental Protection Agency (EPA).

Residential contracts grant the waste hauler the exclusive right to service all or part of the municipality's jurisdictions. Waste collection fees are usually determined by several factors, such as collection frequency, type of collection equipment used, type of waste, volume, weight of the waste collected, and the distance from the collection sites to the disposal facility.

Once waste has been collected, it may be hauled directly to landfills or incinerators for disposal. It may also be transported to transfer stations, after which it is deposited in a landfill, recycled, or incinerated.

◆ **Landfills.** Landfills are either owned by full-service waste collection firms or operated as standalone companies. Landfill operations generate revenues from disposal charges (or "tipping fees") that are charged to waste haulers or transfer stations. Charges are based on industry supply and demand, MSW type, volume, or weight as well as the type and size of waste trucks. Given the time required to get a new landfill permit (more than five years in some cases) and the monitoring by the EPA and local municipalities, along with the excess capacity in the segment, CFRA sees little incentive for waste companies to develop new landfills.

◆ **Transfer Stations.** Transfer stations collect waste from the smaller garbage trucks, separate recyclable material, compact non-recyclable waste, and place it in trailers or on barges for transport to disposal facilities. The transfer stations are often located near residential and commercial collection routes. Waste haulers generally use them when the main disposal facilities are located too far from original MSW collection sites.

Transfer stations are either owned by full-service waste haulers or operated as standalone companies. Standalone transfer stations generate revenues through tipping fees, which they charge waste haulers based on the type and volume of waste compacted, the distance to disposal sites, and disposal costs. Full-service waste haulers also charge tipping fees to other companies that use their transfer stations.

Transfer stations will likely become the preferred method for handling MSW locally. As these facilities take on waste diversion functions (including materials segregation, recovery, and composting), they extend landfill life and enable communities to control waste disposal without incurring a large financial risk.

◆ **Recycling.** Recycling involves the collection, separation, and recovery of reusable MSW. Recyclables are collected for the most part through curbside recycling programs sponsored by municipalities and to a lesser extent, at drop-off sites, transfer stations, and landfill sites. Ultimately, recyclables find their way to recovery centers, which sort, bale, and market recyclables. The largest single category of recyclables is paper of various types, followed by scrap metal and yard trimmings.

Recycling programs tend to be more numerous in crowded regions where disposal costs are higher and incentives to recycle are greater. Single-stream recycling systems, in which material is sorted by the recovery facility rather than by the resident, are growing in popularity. Although these programs are labor-intensive, requiring high costs for salaries and benefits, they reduce operating costs, as fewer trucks and drivers are needed to run recycling collection routes.

◆ **Incineration.** Waste is incinerated primarily at waste-to-energy (WTE) plants, which generate and sell the energy produced. There are 75 WTE plants currently operating in the U.S., according to EPA's data. The number of incinerators in operation had declined from over 200 facilities in the early 1990s to just 75 facilities in 2020, driven largely by low electricity prices and stricter air pollution control requirements. Additionally, no new WTE plants were built between 1995 and 2015, but several plants have expanded to manage additional waste and generate more energy. Incinerators are used for the mass of the collected waste.

What Drives the Market?

Demand for MSW services is driven mainly by U.S. GDP and population growth. Historically, nearly one percentage point of the segment's internal growth (revenue growth not driven by acquisitions, recycling commodity prices, or fuel surcharges) has come from population increases; rising prices account for the rest. For hazardous waste services, government regulation is the market's main driver.

In the waste management business, pricing initiatives have historically been related to inflation. However, in recent years, major solid waste companies have been willing to sacrifice market share in favor of maintaining a pricing strategy, while offering quality service as an incentive to retain their largest and most loyal customers. Generally, rising costs encourage firms to try to push through higher prices to customers, who are more likely to accept them at such times than when prices are stable. Significantly higher fuel costs have led to fuel surcharges, hedging programs, and higher contractual pricing.

Waste generation has expanded slightly less rapidly than the economy, suggesting the U.S. is generating less trash per unit of total economic output due to a more services-based rather than manufacturing-based economy, as well as pollution and waste minimization efforts.

The U.S. production of industrial waste byproducts, which make up the bulk of hazardous waste, is falling due to changes in manufacturing technology and the decline of manufacturing. In 1980, the EPA began a program in which people or facilities that generate hazardous wastes could petition to have the substances removed from Subtitle C, or "delisted." Accordingly, the number of contracts for treating such waste is falling as well. Capacity is more in line with demand than it was between 1995 and 1997, a period that was characterized by pricing pressures. However, the industry still suffers from landfill overcapacity, particularly

in solvent recovery and fuel blending. These factors have affected the hazardous waste industry's profit margins, which have narrowed substantially.

Diversified Support Services

Industrial laundry services supply and clean heavy-duty work garments, including uniforms, protective gear, and overalls. This sub-industry also supplies and cleans mats. Linen supply services, on the other hand, supply companies with lighter-duty garments (usually ironed), such as hospital scrubs, bedding, and tableware. The major end-market segments include hospitals, hotels, restaurants, manufacturing plants, universities, and construction crews.

Garments are typically picked up on a weekly basis and delivered to a central location, where they are sorted by type and degree of soiling. Garment batches are washed continuously in a computerized laundry machine. If the garment requires pressing, it goes to a large flat ironer, while other items move to tumblers. The garments then go to quality control, where they are inspected for tears and excessive wear before being sent back to the customers.

The laundry services business does not experience material seasonality. Companies typically charge by garment weight or by unit. Contracts typically cover a three- to five-year term. This sub-industry is very labor-intensive. Many linen and uniform supply companies source uniforms and textile products from international suppliers in China, Mexico, Vietnam, and Cambodia. Other major expenses or inputs include gas, electricity, detergents, and water.

Regulatory Environment

Waste management service providers face strict government regulations, administered by the EPA; Environment Canada; and various other federal, state, provincial, and local environmental agencies in the U.S. and Canada that encompass zoning, transportation, land use, health, and safety. In the U.S., the Solid Waste Disposal Act (SWDA) primarily regulates the Environmental & Facilities Services sub-industry. As amended by the Resource Conservation and Recovery Act of 1976 (RCRA), the SWDA regulates the handling, transportation, treatment, and disposal of municipal and hazardous wastes.

Subtitle D of the RCRA, adopted in 1991, established a framework for federal, state, and local government cooperation in controlling MSW management. Although the EPA provides overall regulatory direction, state and local governments are responsible for planning and implementation of Subtitle D programs. One effect of Subtitle D provisions during the 1990s was to drastically reduce the number of landfills in the country – which reduced the number of landfills by 60%, from a total of 6,326 in 1990 to 2,633 as of September 6, 2022, according to the EPA. Small landfill owners, who could not afford the equipment to control leachate and gas emissions and bring their landfills into compliance with the law, were forced out of business, while large, financially sound companies built new landfills that met the regulations. Many states have recycling bottle laws that require refundable deposits on beverage containers. There is also regulatory pressure to prohibit the export of hazardous electronic waste. The hazardous waste industry is primarily regulated under Subtitle C of the RCRA. Laundering businesses face several regulations by states and the EPA. The EPA regulates the use and disposal of wastewater and detergent, which both contain toxic solvents.

HOW TO ANALYZE A COMPANY IN THIS INDUSTRY

At CFRA, we recommend a top-down approach to valuation. An examination of the industry drivers outlined on pages 9 and 10—housing starts, fuel prices, consumer price index, real disposable personal income, unemployment rate, as well as nonfarm payroll—is a good starting point.

Industry Drivers

◆ **Gross Domestic Product.** GDP, compiled each quarter by the U.S. Department of Commerce, measures the total value of goods and services produced in the U.S. GDP is an important indicator used to gauge the health of the U.S. economy, which in turn drives demand for Commercial Services & Supplies. Municipal solid waste (MSW) volume growth tends to fluctuate with economic activity.

◆ **Housing Starts.** Housing starts are released monthly by the U.S. Census Bureau and the U.S. Department of Housing and Urban Development and are reported as a seasonally adjusted annualized rate (SAAR) of the number of residences for which construction has begun in each period. This data is a key indicator of solid waste generation. A decline in housing starts can limit solid waste generation, as construction and demolition (C&D) debris can account for more than 15% of total volume.

◆ **U.S. Population Growth.** The growth in population is a primary demand driver for the MSW and commercial laundry businesses. The U.S. population reached 332 million as of July 2021, according to the U.S. Census Bureau. The population is projected to increase 22% between 2020 and 2060, to nearly 404.5 million (about 0.5% annually, on average).

◆ **Fuel Prices.** Both waste haulers and laundry service companies rely heavily on trucks to perform their services, and therefore, fuel costs are significant. The price of oil, which exhibits extreme volatility, is directly correlated with the price of gasoline and diesel fuels. Daily quotes for fuel benchmarks can be found on the New York Mercantile Exchange (NYMEX) and Chicago Mercantile Exchange (CME). R&D efforts focus on route optimization and converting fleets to compressed natural gas to reduce costs.

◆ **Labor Market.** Growth in employment numbers is a critical demand driver for uniform services companies operating in the Diversified Support Services sub-industry. Employment figures are available monthly from the Bureau of Labor Statistics, a division of the U.S. Department of Labor.

◆ **Daily MSW Generated per Capita.** The U.S. Environmental Protection Agency (EPA) publishes annual statistics for this metric every few years. Daily MSW generated per person was about 4.91 pounds in 2018 (latest available), up slightly from 4.45 pounds per person in 2010. The generally flat rate of per capita MSW generation contributes to the low MSW industry growth rates and is a result of increased recycling and composting.

◆ **Landfill and Incinerator Capacity.** This statistic is important in gauging the MSW segment's ability to increase landfill charges or tipping fees in each area and is reported by multiple private waste publications and individual companies. When less capacity is available, higher fees can be charged.

◆ **Landfill Disposal Charges.** This metric is important for gauging the MSW segment's profitability. Due to the high costs associated with transportation, the waste management business is predominantly local. Thus, the fees charged in each market indicate the potential profitability for a firm operating a landfill in that market. For waste haulers, they indicate firms' expenses for dumping waste. Disposal charges, called tipping fees or "disposal rates", vary significantly by market. Local fees in the regions a company operates in are more indicative of profits than the national average tipping fee.

Company Analysis

The best starting point in analyzing a company operating in the Commercial Services & Supplies industry is a thorough analysis of the macroeconomic environment. Most important indicators to this industry are GDP growth, population growth, housing starts, and labor market statistics. With a solid understanding of the macroeconomic backdrop, it is important to assess both qualitative factors (a company's market position and strategic focus) as well as quantitative factors, by performing a thorough financial statement analysis. The company's main financial statements—income statement, balance sheet, and statement of cash flows—provide an important basis for assessing overall performance.

It is important for the investor to perform all financial analyses with relativity in mind. Although the absolute numbers and overall trends are important, how the trends compare to the company's rivals is equally important. It is crucial to establish a like-for-like peer group based on business mix and end-market exposure. Given an appropriate peer group, investors must assess how the company compares with its peers in terms of market position, quality of management, sales and profit growth, balance sheet strength, and return on investment.

Qualitative Factors

It is important to consider how well a company is positioned within the industry, and how well the company is managed. How does the company differentiate itself from its rivals? What are the company's competitive advantages and its disadvantages? What is the company's long-term plan for growth (organic versus acquisitions) and how does the company thrive compared with its competitors? How much market share does the company have and does the company have pricing power? What is the competitive landscape and how will it affect the company's growth prospects for growth?

Market Position

Market leadership is important for each sub-industry within the Commercial Services & Supplies industry. Economies of scale are large, as the industry requires large sums of capital and fixed costs make up a large proportion of total expenses. Brand equity is important in the Security & Alarm Services sub-industry, whereas trash hauling is more of a price sensitive commodity with little brand loyalty.

Quality of Management

The management teams of companies in the Commercial Services & Supplies industry should be steadfast and strategic, given market conditions, regulations, and the economic environment. Given the mature nature of the industry, CFRA favorably views management teams with proven records of driving efficient operations throughout the business cycle. In evaluating a company, it is important to assess the company's leaders to determine if they have demonstrated the ability to deliver on guidance in the past. It is also important to assess whether company management has the skill-set necessary to reach the current goals. What is management's tenure? Do the managers own company stock or options? (Stock ownership by executives helps ensure that management acts in the best interests of shareholders.)

Quantitative Factors

Financial statement analysis is one of the principal tasks in evaluating a company. Over the course of the business cycle, the investor should examine trends in revenue, gross profit margin, earnings per share (EPS), times-interest-earned, and other leverage ratios. The resulting analysis should indicate if the company is profitable, growing, and if the balance sheet is in good health.

The Income Statement

The income statement provides information needed to measure a company's operating performance for a specified period. It is important to compare a period year-over-year as well as sequentially. Analysis of longer-term results enables investors to recognize and examine trends in sales and profits over the course of a business cycle. The five main measures used to evaluate profitability are revenue, gross margin, EPS, return on invested capital (ROIC), and depreciation expense.

◆ **Revenue.** Beginning at the top of the income statement, investors should look at short- and long-term growth trends in revenues. Revenue growth trends are good indicators of the health of a business. It is important to compare revenue growth to the company's closest competitors and to the wider industry. An investor should assess whether a company is gaining market share or benefiting from industry-wide growth. Additionally, not all revenue growth generates the same level of profitability—it is important to measure which segments generate the most growth (segment gross margins can vary significantly) and whether the revenue growth is coming from price or volume.

◆ **Gross Profit Margins.** Trends in gross margin (the percentage of sales remaining after subtracting the cost of goods sold or costs such as materials, labor, and overhead) help investors gauge operational efficiency and changes in product mix. Higher volumes typically lead to higher gross margins, as fixed costs are spread over more units. Further examination of gross margin trends can help an investor determine the drivers for sequential and year-over-year changes in gross margin. For example, severe price competition often leads to margin contraction, unless a company picks up significant market share.

◆ **Earnings Per Share (EPS).** Earnings per share is one of the most closely watched measures of profitability. Investors focus a lot of attention on EPS to discern trends over the course of a cycle. Assess how a company's trends throughout the cycle compared with those of its peers and with companies in related and unrelated industries.

Watch Out! *Companies can use one-time charges to manage pro-forma earnings. Analysts should further note that even when special charges are made in good faith, frequent restructuring charges can impair the comparability of results across periods and impede analysis of ongoing operations.*

Watch Out! *Companies can boost earnings by manipulating the cost per ton for landfill costs, which helps determine amortization expense on the income statement. Companies operating in the landfill business are required to make numerous estimates to determine the potential cost of landfill development as well as capping and post-closure (i.e., maintenance) costs. Costs incurred to develop a landfill are capitalized. Our concern is with management's ability to manipulate assumptions to help lower the amortization recorded in the income statement. Earnings can benefit from (1) using too low of an inflation rate; (2) using too high of a discount rate; (3) using estimated costs that are too low; (4) manipulating the timing of expected costs; and (5) using capacity figures that are too high.*

Watch Out! *Companies can use the environmental liability account to help manipulate earnings. Environmental liabilities are a significant concern in this industry as these companies are generally regulated. Remediation expenses are recognized when a company determines it is responsible for remediation costs and the cost can be estimated. A decline in environmental liabilities recognized on the balance sheet could indicate the reversal of prior period reserves, which may provide an unsustainable boost to income.*

Watch Out! *Commercial Services and Supplies companies can have high insurance costs related to product liability, workers' compensation, health care benefit costs, and environmental costs. Some companies chose to set aside a pool of money that can be used to mitigate an unexpected loss. Companies that self-insure are required to estimate and accrue costs related to the above-noted items. To the extent that these accruals are subject to management discretion, they may be manipulated to achieve a financial performance target. We would normally expect accruals related to workers' compensation and employee health benefits to grow or decline at a rate like that of the business. Any deviation could be a sign of earnings management.*

◆ **Return on Invested Capital (ROIC).** ROIC measures the company's efficiency at allocating the capital under its control to profitable investments. ROIC is calculated by dividing net operating profit after-tax by total capital (average shareholders' equity plus debt). It gives investors a sense of how well a company is using its money to generate returns. Comparing a company's ROIC with its weighted average cost of capital reveals whether invested capital was used effectively.

◆ **Depreciation Expense.** When analyzing the profit performance of a company in the Commercial Services & Supplies industry, depreciation expense is particularly important, especially for capital-intensive waste management firms. The choice of depreciation methods and useful life calculations can materially affect the amount of depreciation expense and, in turn, reported income. Companies can depreciate less expense in the early years, thus boosting net income early on. From a tax standpoint, a more aggressive stance would entail depreciating a larger amount initially, which would result in lower reported earnings (and thus taxes) during the first few years.

Watch Out! *Companies can boost earnings by extending the depreciable lives of property, plant & equipment (PP&E) beyond their reasonable useful lives, thereby reducing depreciation expense. It is important to refer to the notes to the financial statements to ensure that a change in depreciable life has not occurred. It is also beneficial to compare trends in depreciation expense with gross PP&E as well as to compare the depreciable lives used by the company and its peers to detect potential manipulation. Finally, be wary of companies where capital expenditures consistently exceed depreciation as these companies may be understating depreciation expense or may experience an increase in depreciation expense in future periods.*

The Balance Sheet

The balance sheet details a company's finances at a specific point in time, listing its assets, liabilities, and net worth or equity. This data is used to calculate various capitalization ratios, which are important because companies in the Commercial Services & Supplies industry typically have high debt. The four main measures to evaluate financial condition are the current ratio, debt-to-capital ratio, interest coverage ratio, and leverage ratio.

◆ **Current Ratio.** This commonly used ratio helps assess a company's ability to service its short-term financial obligations. To derive this ratio, current assets should be divided by current liabilities. A current ratio below one indicates short-term liabilities that are greater than the company's short-term assets. Current assets are those that can be readily converted to cash or used up during a firm's operating cycle (typically one year). Current liabilities generally encompass short-term debt, accounts payable, and other short-term obligations. Any meaningful contraction in the current ratio should be closely examined.

Watch Out! *When companies accelerate revenue into the current period, they are essentially "borrowing" revenue from future periods. The reported revenue growth during a period in which revenue has been accelerated is likely unsustainable. Accelerated revenue can often be identified by monitoring changes in accounts receivable, including unbilled receivables and deferred revenue. Additionally, declines in deferred revenue or deferred profit may indicate a potential slowdown in future revenue growth and/or a change to a more aggressive revenue recognition model in which a greater proportion of revenue is recorded immediately rather than being deferred for recognition at a future date.*

Watch Out! *We also monitor the level of the allowance for doubtful accounts on both an absolute basis and relative to gross accounts receivable. A material decline in allowance for doubtful accounts relative to gross receivables can be a sign of an earnings boosts through a reduction in estimated bad debt expense. The company may have overestimated the required allowance in the past during periods of growth, providing an artificial boost to declining earnings. Alternatively, a company may simply be under-accruing the reserve to boost earnings and meet expectations.*

Watch Out! *Companies can use inventory accounting to manipulate margins. Rising inventories may be indicative of a business slowdown. Analysts should assess whether a company has changed its inventory costing methodology, as this can impact comparability (and potentially flatter results) versus prior periods. Similarly, when analyzing a company relative to its peers, it is important to identify any differences in inventory costing policies between the companies.*

◆ **Debt-to-capital Ratio.** A company's financial strength and flexibility can be assessed according to the level of debt it holds relative to its total invested capital. The debt-to-capital ratio is calculated by dividing long-term debt (including lease obligations) by the sum of long-term debt and equity. Many large, publicly-traded waste haulers tend to be highly leveraged due in part to acquisition strategies and the capital-intensive nature of the business. These companies continue to focus on reducing their debt levels when generating excess cash.

◆ **Interest Coverage Ratio.** Interest coverage measures how easily a company can pay the interest on its outstanding debt. This measure is calculated by dividing earnings before interest, taxes, depreciation, and amortization (EBITDA) by interest expense. In times of low interest rates, interest coverage tends to improve, as interest expense tends to be lower.

◆ **Leverage Ratio.** Leverage ratios assess how much of a company's capital comes from debt. Too much debt can be detrimental to the company and investors. A very low level of debt can indicate that operating margins are too tight. One way to calculate this ratio is by dividing debt by EBITDA. As a company reduces its debt level and/or increases its EBITDA, the leverage ratio improves.

Statement of Cash Flows

Cash flow analysis is an excellent tool for gauging how a company generates profits and where it places its funds. Cash flow equals the sum of net income plus non-cash charges, such as depreciation, depletion, and amortization of goodwill. For most Commercial Services & Supplies companies, depreciation tends to be sizable.

Cash flow analysis is also a helpful device to evaluate how much of a company's net income is available to shareholders for dividend increases or share repurchases. Investors need to determine if a firm's cash flow covers its capital spending or if it will need to increase borrowing to cover capital spending and additionally fund acquisitions, pay dividends, buy back stock, or fund joint ventures.

Watch Out! *Supplier financing arrangements (also known as reverse factoring) can delay a company's payments to its suppliers. There are several variations of these programs, but basically, a company arranges for a financial institution to pay its suppliers and the company repays the financial institution later. This effectively lengthens the supplier payment terms and improves working capital. However, operating cash flows can be overstated if the cash payments to the financial institution are presented as financing outflows rather than operating cash flows, which would be the case if the company pays the supplier directly. Furthermore, companies may not reclassify accounts payable under reverse factoring programs into financial liabilities, which may understate leverage ratios.*

◆ **Free Cash Flow.** When analyzing and valuing a company in this industry, an important measure is free cash flow—the amount of excess cash the company has available after paying off all its obligations. Free cash flow paints a relatively accurate picture of a company's true profit performance. It is especially important in evaluating an MSW company's intrinsic value, as waste haulers are currently focused on generating free cash flow to pay down debt, and more recently, repurchasing stock and increasing quarterly cash dividends.

Most of the large companies in the Commercial Services & Supplies industry generate substantial free cash flow. Investors should consider how the company prioritizes use of free cash. Free cash is typically used to reduce debt, repurchase shares, make acquisitions, enter new markets, or reinvest in existing operations or technology. It is important for a company to find the optimal balance between reinvesting free cash into its business and using the cash to reward shareholders.

Valuation Measures

A crucial step in analyzing a company in the Commercial Services & Supplies industry involves determining if its shares are undervalued or overvalued. CFRA suggests using a variety of valuation methods (both relative valuation methodology and discounted cash flows) to arrive at a reasonable range of values. How do these values compare with historical ratios and with those of the company's peers?

◆ **P/E and PEG Ratios.** The price-to-earnings (P/E) ratio compares the market value per share of a company versus its earnings per share (EPS). Typically, the P/E is calculated with the current price against the expected earnings in the following fiscal year (*e.g.,* the current price versus expected earnings in calendar year 2023). A variation of this ratio, which can be used to weigh the strength of earnings growth as part of valuation assessments for a given company relative to its peers, is referred to as the PEG ratio, or P/E divided by the company's projected average five-year earnings growth rate. The size of the potential market for the company's products and services should be used to estimate the five-year growth rate. Although further analysis is advisable, a common benchmark is that the shares might be undervalued if a company's PEG is below 1.0 and the fundamentals of the business are healthy.

Historically, this industry has traded at average multiples in the mid-teens to the mid-20s, on a forward 12-month basis, with an average PEG ratio of around 2.1x in 2016-2021.

◆ **EV/EBITDA Ratio.** This ratio compares enterprise value (EV) with a company's EBITDA. EV is the market value of a company's equity shares and debt financing, less cash. EBITDA is indicative of a firm's earning power, regardless of capital structure, tax planning or non-cash charges, and can be compared with those of other companies on an apples-to-apples basis. For this reason, EV/EBITDA is the preferred method to valuing merger & acquisition (M&A) multiples.

◆ **Discounted Cash Flow.** A solid waste company's intrinsic value can be measured by estimating the present value of future free cash flows to equity holders—the discounted cash flow (DCF). Free cash flow consists of after-tax net income plus depreciation and amortization, less capital expenditures, the change

in working capital and preferred dividends. These figures are available from a company's balance sheets and cash flow statements, which are found in its annual report, 10-K filing, or quarterly 10-Q reports filed with the U.S. Securities and Exchange Commission (SEC). Using the DCF measure may help avoid the pitfalls associated with P/E, EV/EBITDA, and other relative valuation metrics. When using only relative valuation techniques, an overvalued stock may appear attractive because it is cheaper than its peers or cheaper than the company's historical average; however, it may be cheaper for a reason (*i.e.,* deteriorating fundamentals) or the industry may be overvalued.

GLOSSARY

Composting—The recycling of food waste (such as vegetable peels) and organic yard waste (such as leaves, grass, and tree branches) into a product that can be used as fertilizer.

Compressed natural gas (CNG)—Methane stored at high pressure, which can be used in place of gasoline (petrol), diesel fuel, and propane. CNG can be used in traditional gasoline/internal combustion engine automobiles that have been modified or in vehicles manufactured for CNG use.

Core price—Price increases to customers and fees, excluding fuel recovery, net of price decreases to retain customers.

Emissions—Airborne pollutants emitted by utilities, industrial plants, transportation vehicles, etc.

Hazardous waste—Waste that is toxic and must be treated or disposed of in a special landfill to avoid exposing people to health risks.

Incinerator—A facility that burns nonhazardous or hazardous waste. Most incinerators possess the ability to convert incinerated waste into energy.

Leachate—Rainwater that percolates through a landfill, dissolving and picking up pollutants as it goes.

Liquefied natural gas (LNG)—Natural gas (predominantly methane) that has been converted to liquid form for ease of storage or transport. LNG achieves a higher reduction in volume than compressed natural gas (CNG).

Materials recovery facility (MRF)—Recycling facility where commingled materials are separated using equipment and manual labor.

Municipal solid waste (MSW)—more commonly known as trash or garbage, MSW is nonhazardous consumer, household, commercial, and industrial waste.

Privatization—The act of selling government-owned operations or assets to investor-owned companies.

Single-stream recycling—A system in which all paper fibers, plastics, metals, and other containers are mixed in a collection truck, instead of being sorted by the depositor into separate commodities and handled separately throughout the collection process.

Tipping fees—Fees charged by operators of transfer stations and landfills to solid waste collectors for the disposal of nonhazardous and/or hazardous waste, usually expressed in dollars per ton. Also called “gate” or “user” fees.

Transfer station—A facility that compacts collected municipal solid waste. The compacted waste is then transported to a disposal site (either a landfill or an incinerator). Increasingly, transfer stations are being used to sort recyclable materials.

Waste-to-energy (WTE) plant—A facility that converts incinerated waste into electric power.

INDUSTRY REFERENCES

PERIODICALS

Action Economics
actioneconomics.com
Provides economic reports and commentary.

E-Waste Monitor
ewastemonitor.info
Monitors the quantities and flows of e-waste.

Reuters
reuters.com
An international news organization and provider of market data.

The Wall Street Journal
wsj.com
U.S. business-focused, English-language international daily newspaper.

Waste Business Journal
wastebusinessjournal.com
News bulletin and market reports on the solid waste industry.

TRADE ASSOCIATIONS

Energy Recovery Council (ERC)
energyrecoverycouncil.org
Serves the waste-to-energy (WTE) industry.

Environmental Research & Education Foundation
erefdn.org
A foundation that funds and directs scientific research and educational initiatives for waste management practices.

Fastmarkets RISI
www.fastmarkets.com
A trusted cross-commodity price reporting agency (PRA) in the agriculture, forest products, metals and mining, and energy markets.

Institute of Scrap Recycling Industries (ISRI)
isri.org
Provides information on the recycling industry, promoting safe, economically sustainable, and environmentally responsible recycling through networking, advocacy, and education.

International Telecommunication Union (ITU)
itu.int
A specialized agency of the United Nations responsible for matters related to information and communication technologies.

National Conference of State Legislatures
ncsl.org
A bipartisan non-governmental organization.

Waste360
waste360.com
The leading information, event, commerce, and education provider to the solid waste, recycling, organics, and sustainable communities, and plays a critical role in connecting industry professionals worldwide.

World Meteorological Organization
wmo.int
A specialized agency of the United Nations (UN). It is the UN system's authoritative voice on the state of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and the resulting distribution of water resources.

World Trade Organization (WTO)
wto.org
The only global international organization dealing with the rules of trade between nations.

GOVERNMENT AGENCIES

U.S. Census Bureau
census.gov
Federal agency that provides data about the U.S. population and economy.

U.S. Energy Information Administration (EIA)
eia.gov
Principal agency of the U.S. Federal Statistical System responsible for collecting, analyzing, and disseminating energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.

Tropical Storm Risk (TSR)
tropicalstormrisk.com
A venture developed from the U.K. government-supported TSUNAMI initiative project on seasonal tropical cyclone prediction.

U.S. Environmental Protection Agency (EPA)
epa.gov
Federal agency that oversees the nation's environmental safety; enacts and enforces laws.

National Hurricane Center
nhc.noaa.gov
A component of the National Centers for Environmental Prediction that issues watches, warnings, forecasts, and analyses of hazardous tropical weather.

International Telecommunication Union
itu.int
A specialized agency for information and communication technologies under the United Nations.

United States Department of Energy
energy.gov
A U.S. Department concerned with policies regarding energy and safety in handling nuclear material.

OTHERS

United Nations University (UNU)
unu.edu
A global think tank and postgraduate teaching organization headquartered in Japan.

Waste Management, Inc.
wm.com
A waste management, comprehensive waste, and environmental services company operating in North America.

COMPARATIVE COMPANY ANALYSIS

Operating Revenues

Ticker		Company		Yr. End	Million $ 2021	2020	2019	2018	2017	2016	2015	CAGR (%) 10-Yr.	5-Yr.	1-Yr.	Index Basis (2012=100) 2021	2020	2019	2018	2017	2016
COMMERCIAL PRINTING																				
BRC	§	BRADY CORPORATION		JUL	1,144.7	1,081.3	1,160.6	1,173.9	1,113.3	1,120.6	1,171.7	0.8	0.4	5.9	98	92	99	100	95	96
DLX	§	DELUXE CORPORATION		DEC	2,022.2	1,790.8	2,008.7	1,998.0	1,965.6	1,849.1	1,772.8	3.6	1.8	12.9	114	101	113	113	111	104
ENVIRONMENTAL AND FACILITIES SERVICES																				
ABM	§	ABM INDUSTRIES INCORPORATED		OCT	6,228.6	5,987.6	6,498.6	6,442.2	5,453.6	5,144.7	4,897.8	3.9	3.9	4.0	127	122	133	132	111	105
CLH	†	CLEAN HARBORS, INC.		DEC	3,805.6	3,144.1	3,412.2	3,300.3	2,945.0	2,755.2	3,275.1	6.7	6.7	21.0	116	96	104	101	90	84
HSC	§	HARSCO CORPORATION		DEC	1,848.4	1,534.0	1,204.4	1,347.7	1,307.5	1,451.2	1,723.1	-5.6	5.0	20.5	107	89	70	78	76	84
RSG	[]	REPUBLIC SERVICES, INC.		DEC	11,295.0	10,153.6	10,299.4	10,040.9	10,041.5	9,387.7	9,115.0	3.3	3.8	11.2	124	111	113	110	110	103
ROL	[]	ROLLINS, INC.		DEC	2,424.3	2,161.2	2,015.5	1,821.6	1,674.0	1,573.5	1,485.3	7.2	9.0	12.2	163	146	136	123	113	106
SRCL	†	STERICYCLE, INC.		DEC	2,646.9	2,675.5	3,308.9	3,485.9	3,580.7	3,562.3	2,985.9	4.7	-5.8	-1.1	89	90	111	117	120	119
TTEK	†	TETRA TECH, INC.		OCT	2,552.2	2,348.6	2,389.6	2,200.7	2,034.0	1,929.2	1,718.7	3.6	5.8	8.7	148	137	139	128	118	112
WM	[]	WASTE MANAGEMENT, INC.		DEC	17,931.0	15,218.0	15,455.0	14,914.0	14,485.0	13,609.0	12,961.0	3.0	5.7	17.8	138	117	119	115	112	105
OFFICE SERVICES AND SUPPLIES																				
HNI	§	HNI CORPORATION	#	JAN	0.0	2,184.4	2,246.9	2,257.9	2,175.9	2,203.5	2,203.5	1.8	-0.2	11.7	0	99	102	102	99	100
TILE	§	INTERFACE, INC.	#	JAN	0.0	1,200.4	1,343.0	1,179.6	996.4	996.4	958.6	2.3	4.6	8.8	0	125	140	123	104	104
MLKN	†	MILLERKNOLL, INC.	#	MAY	3,946.0	2,465.1	2,567.2	2,381.2	2,278.2	2,278.2	2,264.9	4.1	1.7	-0.9	174	109	113	105	101	101
MSA	†	MSA SAFETY INCORPORATED		DEC	1,400.2	1,348.2	1,402.0	1,358.1	1,196.8	1,149.5	1,130.8	2.3	4.0	3.9	124	119	124	120	106	102
PBI	§	PITNEY BOWES INC.		DEC	3,673.6	3,554.1	3,205.1	3,211.5	2,784.0	2,981.3	3,578.1	-1.2	4.3	3.4	103	99	90	90	78	83
DIVERSIFIED SUPPORT SERVICES																				
CTAS	[]	CINTAS CORPORATION	#	MAY	7,854.5	7,116.3	7,085.1	6,892.3	6,476.6	5,323.4	4,795.8	6.4	8.2	0.4	164	148	148	144	135	111
CPRT	[]	COPART, INC.		JUL	2,692.5	2,205.6	2,042.0	1,805.7	1,448.0	1,268.4	1,146.1	11.9	16.2	22.1	235	192	178	158	126	111
HCSG	§	HEALTHCARE SERVICES GROUP, INC.		DEC	1,642.0	1,760.3	1,840.8	2,002.6	1,861.2	1,562.7	1,436.8	6.3	1.0	-6.7	114	123	128	139	130	109
IAA	†	IAA, INC.	#	JAN	0.0	1,384.9	1,436.8	1,326.8	1,219.2	1,219.2	994.3	10.1	10.8	32.7	0	139	145	133	123	123
KAR	§	KAR AUCTION SERVICES, INC.		DEC	2,251.6	2,187.7	2,781.9	2,442.8	2,238.8	3,150.1	2,690.6	1.8	-6.5	2.9	84	81	103	91	83	117
MATW	§	MATTHEWS INTERNATIONAL CORPORATION		SEP	1,671.0	1,498.3	1,537.3	1,602.6	1,515.6	1,480.5	1,426.1	6.4	2.5	11.5	117	105	108	112	106	104
UNF	§	UNIFIRST CORPORATION		AUG	1,826.2	1,804.2	1,809.4	1,696.5	1,591.0	1,468.0	1,456.6	4.9	4.5	1.2	125	124	124	116	109	101
VVI	§	VIAD CORP		DEC	507.3	415.4	1,302.7	1,237.3	1,307.0	1,205.0	1,089.0	-6.0	-15.9	22.1	47	38	120	114	120	111
SECURITY AND ALARM SERVICES																				
CXW	§	CORECIVIC, INC.		DEC	1,862.6	1,905.5	1,980.7	1,835.8	1,765.5	1,849.8	1,793.1	1.0	0.1	-2.2	104	106	110	102	98	103
BCO	†	THE BRINK'S COMPANY		DEC	4,200.2	3,690.9	3,683.2	3,488.9	3,347.0	3,020.6	3,061.4	1.4	6.8	13.8	137	121	120	114	109	99
GEO	§	THE GEO GROUP, INC.		DEC	2,256.6	2,350.1	2,477.9	2,331.4	2,263.4	2,179.5	1,843.3	4.8	0.7	-4.0	122	127	134	126	123	118

Note: Data as originally reported. CAGR-Compound annual growth rate.
[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.
Souce: S&P Capital IQ.

Net Income

Ticker		Company		Yr. End	Million $ 2021	2020	2019	2018	2017	2016	2015	CAGR (%) 10-Yr.	5-Yr.	1-Yr.	Index Basis (2012=100) 2021	2020	2019	2018	2017	2016
COMMERCIAL PRINTING																				
BRC	§	BRADY CORPORATION		JUL	129.7	112.4	131.3	91.1	95.6	80.1	3.0	1.8	10.1	15.4	4341	3762	4394	3049	3202	2682
DLX	§	DELUXE CORPORATION		DEC	62.6	5.2	-223.8	149.6	230.2	229.4	218.6	-8.0	-22.9	1,094.4	29	2	-102	68	105	105
ENVIRONMENTAL AND FACILITIES SERVICES																				
ABM	§	ABM INDUSTRIES INCORPORATED		OCT	126.3	0.3	127.4	97.8	3.8	57.2	76.3	6.3	17.2	42,000.0	166	0	167	128	5	75
CLH	†	CLEAN HARBORS, INC.		DEC	203.2	134.8	97.7	65.6	100.7	-39.9	44.1	4.8	NM	50.7	461	306	222	149	228	-90
HSC	§	HARSCO CORPORATION		DEC	-3.2	-26.3	503.9	137.1	7.8	-85.7	6.2	-11.9	-48.0	-87.7	-53	-426	8143	2215	126	NM
RSG	[]	REPUBLIC SERVICES, INC.		DEC	1,290.4	967.2	1,073.3	1,036.9	1,278.4	612.6	749.9	8.2	16.1	33.4	172	129	143	138	170	82
ROL	[]	ROLLINS, INC.		DEC	350.7	260.8	203.3	231.7	179.1	167.4	152.1	13.3	15.9	34.5	230	171	134	152	118	110
SRCL	†	STERICYCLE, INC.		DEC	-27.8	-57.3	-346.8	-244.7	42.4	206.3	267.0	NA	NM	-51.5	-10	-21	-130	-92	16	77
TTEK	†	TETRA TECH, INC.		OCT	232.8	173.9	158.7	136.9	117.9	83.8	39.1	10.0	22.7	33.9	596	445	406	350	302	214
WM	[]	WASTE MANAGEMENT, INC.		DEC	1,816.0	1,496.0	1,670.0	1,925.0	1,949.0	1,182.0	753.0	6.6	9.0	21.4	241	199	222	256	259	157
OFFICE SERVICES AND SUPPLIES																				
HNI	§	HNI CORPORATION	#	JAN	0.0	59.8	110.5	93.4	89.8	85.6	85.6	2.7	-6.9	42.7	0	70	129	109	105	100
TILE	§	INTERFACE, INC.	#	JAN	0.0	55.2	79.2	50.3	53.2	53.2	54.2	3.6	0.4	NM	0	102	146	93	98	98
MLKN	†	MILLERKNOLL, INC.	#	MAY	-27.1	174.6	160.5	128.1	123.9	123.9	136.7	9.4	5.0	NM	-20	128	117	94	91	91
MSA	†	MSA SAFETY INCORPORATED		DEC	21.3	124.1	138.0	124.2	26.0	91.9	70.8	-11.2	-25.3	-82.8	30	175	195	175	37	130
PBI	§	PITNEY BOWES INC.		DEC	-1.4	-180.4	194.3	241.8	243.5	92.8	407.9	NA	NM	-99.3	0	-44	48	59	60	23
DIVERSIFIED SUPPORT SERVICES																				
CTAS	[]	CINTAS CORPORATION	#	MAY	1,235.8	1,111.0	876.0	885.0	842.6	480.7	693.5	16.2	9.9	26.8	178	160	126	128	121	69
CPRT	[]	COPART, INC.		JUL	936.5	699.9	591.7	417.9	394.2	270.4	219.8	18.9	28.2	33.8	426	318	269	190	179	123
HCSG	§	HEALTHCARE SERVICES GROUP, INC.		DEC	45.9	98.7	64.6	83.5	88.2	77.4	58.0	1.9	-9.9	-53.5	79	170	111	144	152	133
IAA	†	IAA, INC.	#	JAN	0.0	194.8	193.2	183.7	161.4	161.4	89.9	16.2	25.4	51.1	0	217	215	204	180	180
KAR	§	KAR AUCTION SERVICES, INC.		DEC	66.5	0.5	188.5	328.0	362.0	222.4	214.6	-0.8	-21.5	13,200.0	31	0	88	153	169	104
MATW	§	MATTHEWS INTERNATIONAL CORPORATION		SEP	2.9	-87.2	-38.0	107.4	74.4	66.7	63.4	-27.5	-46.6	NM	5	-137	-60	169	117	105
UNF	§	UNIFIRST CORPORATION		AUG	151.1	135.8	179.1	163.9	70.2	125.0	124.3	7.0	3.9	11.3	122	109	144	132	56	101
VVI	§	VIAD CORP		DEC	-92.7	-374.1	22.0	49.2	57.7	42.3	26.6	NA	NM	-75.2	-348	NM	83	185	217	159
SECURITY AND ALARM SERVICES																				
CXW	§	CORECIVIC, INC.		DEC	-51.9	54.2	188.9	159.2	178.0	219.9	221.9	NA	NM	NM	-23	24	85	72	80	99
BCO	†	THE BRINK'S COMPANY		DEC	105.2	16.0	29.0	-33.3	16.7	34.5	-11.9	3.5	25.0	557.5	-884	-134	-244	280	-140	-290
GEO	§	THE GEO GROUP, INC.		DEC	77.4	113.0	166.6	145.1	146.2	148.7	139.4	-0.2	-12.2	-31.5	56	81	119	104	105	107

Note: Data as originally reported. CAGR-Compound annual growth rate.
[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.
Souce: S&P Capital IQ.

Ticker		Company		Yr. End	Return on Revenues (%)						Return on Assets (%)						Return on Equity (%)					
					2021	2020	2019	2018	2017	2016	2021	2020	2019	2018	2017	2016	2021	2020	2019	2018	2017	2016
COMMERCIAL PRINTING																						
BRC	§	BRADY CORPORATION		JUL	11.3	10.4	11.3	7.8	8.6	7.1	9.4	9.8	11.3	8.6	9.1	7.7	14.2	13.1	16.4	12.5	14.7	13.4
DLX	§	DELUXE CORPORATION		DEC	3.1	0.3	NM	7.5	11.7	12.4	2.0	0.3	NM	6.5	10.4	10.5	11.5	1.0	NM	15.5	24.3	28.2
ENVIRONMENTAL AND FACILITIES SERVICES																						
ABM	§	ABM INDUSTRIES INCORPORATED		OCT	2.0	0.0	2.0	1.5	0.1	1.1	2.8	0.0	3.5	2.7	0.1	2.5	8.1	0.0	8.5	6.8	6.6	6.3
CLH	†	CLEAN HARBORS, INC.		DEC	5.3	4.3	2.9	2.0	3.4	NM	3.6	3.3	2.4	1.8	2.7	NM	14.2	10.3	8.0	5.6	8.9	NM
HSC	§	HARSCO CORPORATION		DEC	NM	NM	41.8	10.2	0.6	NM	NM	NM	21.3	8.4	0.5	NM	3.7	NM	3.4	41.1	NM	NM
RSG	[]	REPUBLIC SERVICES, INC.		DEC	11.4	9.5	10.4	10.3	12.7	6.5	5.2	4.1	4.7	4.8	6.0	3.0	14.8	11.7	13.4	13.1	16.3	7.9
ROL	[]	ROLLINS, INC.		DEC	14.5	12.1	10.1	12.7	10.7	10.6	17.7	14.1	11.7	21.2	17.3	18.3	34.7	29.7	26.6	33.9	29.3	30.6
SRCL	†	STERICYCLE, INC.		DEC	NM	NM	NM	NM	1.2	5.8	NM	NM	NM	NM	0.6	3.0	NM	NM	NM	NM	1.5	7.5
TTEK	†	TETRA TECH, INC.		OCT	9.1	7.4	6.6	6.2	5.8	4.3	9.0	7.3	7.4	7.0	6.2	4.7	20.5	17.2	16.2	14.4	13.1	9.7
WM	[]	WASTE MANAGEMENT, INC.		DEC	10.1	9.8	10.8	12.9	13.5	8.7	6.2	5.1	6.0	8.5	8.9	5.7	24.9	20.6	25.0	31.2	34.3	22.1
OFFICE SERVICES AND SUPPLIES																						
HNI	§	HNI CORPORATION	#	JAN	0.0	2.7	2.1	4.9	4.1	4.1	NA	4.0	3.0	7.6	6.7	6.5	0.0	10.1	7.1	19.3	17.3	17.7
TILE	§	INTERFACE, INC.	#	JAN	0.0	4.6	NM	5.9	4.3	5.3	NA	4.2	NM	5.6	3.9	6.7	0.0	16.0	NM	21.9	14.7	15.9
MLKN	†	MILLERKNOLL, INC.	#	MAY	NM	7.1	NM	6.3	5.4	5.4	NM	8.4	NM	10.2	8.7	9.5	NM	22.1	NM	22.4	19.7	21.3
MSA	†	MSA SAFETY INCORPORATED		DEC	1.5	9.2	9.8	9.1	2.2	8.0	0.9	6.5	7.9	7.7	1.5	6.8	2.6	15.8	20.3	20.1	4.6	17.5
PBI	§	PITNEY BOWES INC.		DEC	NM	NM	6.1	7.5	8.7	3.1	NM	NM	3.6	4.1	3.6	1.6	3.8	NM	20.5	125.1	424.1	51.1
DIVERSIFIED SUPPORT SERVICES																						
CTAS	[]	CINTAS CORPORATION	#	MAY	15.7	15.6	12.4	12.8	13.0	9.0	15.2	13.5	11.4	11.9	12.1	7.0	35.3	32.1	28.1	29.3	29.5	22.1
CPRT	[]	COPART, INC.		JUL	34.8	31.7	29.0	23.1	27.2	21.3	20.5	20.3	23.2	18.1	19.9	16.4	31.1	32.8	35.2	31.2	42.1	31.1
HCSG	§	HEALTHCARE SERVICES GROUP, INC.		DEC	2.8	5.6	3.5	4.2	4.7	5.0	5.9	12.6	8.9	12.1	13.1	14.6	9.8	21.0	14.3	19.9	23.9	24.4
IAA	†	IAA, INC.	#	JAN	0.0	16.0	14.1	13.4	13.8	13.2	NA	9.3	7.7	9.0	12.3	11.3	0.0	146.1	NM	90.7	32.4	28.8
KAR	§	KAR AUCTION SERVICES, INC.		DEC	3.0	0.0	6.8	13.4	16.2	7.1	0.9	0.0	2.9	4.6	5.2	3.4	3.1	0.0	5.9	8.0	12.1	16.0
MATW	§	MATTHEWS INTERNATIONAL CORPORATION		SEP	0.2	NM	NM	6.7	4.9	4.5	0.1	NM	NM	4.6	3.3	3.2	0.5	NM	NM	12.9	9.9	9.2
UNF	§	UNIFIRST CORPORATION		AUG	8.3	7.5	9.9	9.7	4.4	8.5	6.3	6.2	8.7	8.9	3.9	7.3	8.4	8.0	11.5	11.2	5.0	9.6
VVI	§	VIAD CORP		DEC	NM	NM	1.7	4.0	4.4	3.5	NM	NM	1.7	5.3	6.3	4.9	NM	NM	4.7	10.6	14.3	12.3
SECURITY AND ALARM SERVICES																						
CXW	§	CORECIVIC, INC.		DEC	NM	2.8	9.5	8.7	10.1	11.9	NM	1.5	5.0	4.4	5.4	6.7	NM	4.0	13.5	11.1	12.2	15.1
BCO	†	THE BRINK'S COMPANY		DEC	2.5	0.4	0.8	NM	0.5	1.1	1.9	0.3	0.8	NM	0.5	1.7	50.6	11.1	17.4	NM	6.9	13.6
GEO	§	THE GEO GROUP, INC.		DEC	3.4	4.8	6.7	6.2	6.5	6.8	1.7	2.5	3.9	3.4	3.5	4.0	8.2	11.8	16.3	12.9	13.4	15.0

Note: Data as originally reported. CAGR-Compound annual growth rate.
[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.
Souce: S&P Capital IQ.

Ticker		Company		Yr. End	Current Ratio						Debt/Capital Ratio (%)						Debt as a % of Net Working Capital					
					2021	2020	2019	2018	2017	2016	2021	2020	2019	2018	2017	2016	2021	2020	2019	2018	2017	2016
COMMERCIAL PRINTING																						
BRC	§	BRADY CORPORATION		JUL	1.8	2.7	2.4	2.5	2.2	2.4	3.8	0.0	0.0	6.5	13.4	26.6	18.3	0.0	0.0	18.8	48.8	90.1
DLX	§	DELUXE CORPORATION		DEC	0.9	1.2	1.2	1.1	0.9	1.0	73.9	62.3	60.8	49.9	39.6	45.0	NM	893.6	1,377.1	1,569.1	NM	NM
ENVIRONMENTAL AND FACILITIES SERVICES																						
ABM	§	ABM INDUSTRIES INCORPORATED		OCT	1.1	1.5	1.4	1.5	1.6	1.7	34.8	29.2	33.0	38.3	45.8	21.6	743.0	135.9	203.4	238.3	243.1	68.0
CLH	†	CLEAN HARBORS, INC.		DEC	1.9	2.4	1.9	2.0	2.3	2.2	62.4	53.6	55.0	57.2	57.8	60.1	308.5	174.2	228.3	260.9	250.0	277.7
HSC	§	HARSCO CORPORATION		DEC	1.5	1.5	1.4	1.5	1.2	1.3	62.9	64.4	49.8	66.3	73.6	82.6	494.7	459.0	415.7	317.8	488.9	516.7
RSG	[]	REPUBLIC SERVICES, INC.		DEC	0.7	0.7	0.5	0.6	0.5	0.7	51.0	50.5	48.6	48.7	48.1	49.9	NM	NM	NM	NM	NM	NM
ROL	[]	ROLLINS, INC.		DEC	0.7	0.7	0.8	1.0	0.9	1.0	11.2	16.5	25.5	0.0	0.0	0.0	-98.2	NM	NM	0.0	0.0	0.0
SRCL	†	STERICYCLE, INC.		DEC	0.8	0.8	0.9	1.0	0.8	1.4	39.6	40.6	52.0	50.8	47.5	50.6	NM	NM	NM	18,892.2	NM	1,249.1
TTEK	†	TETRA TECH, INC.		OCT	1.3	1.3	1.4	1.7	1.9	1.9	13.9	18.9	21.1	21.5	26.9	27.6	92.0	117.5	85.2	61.2	67.7	73.0
WM	[]	WASTE MANAGEMENT, INC.		DEC	0.8	1.0	2.0	0.9	0.8	0.9	63.5	63.5	64.7	59.3	58.2	62.6	NM	NM	422.7	NM	NM	NM
OFFICE SERVICES AND SUPPLIES																						
HNI	§	HNI CORPORATION	#	JAN	0.0	1.0	1.1	1.1	1.2	1.0	NA	22.8	22.8	23.0	30.7	31.8	NA	1,024.3	307.8	348.0	255.6	NM
TILE	§	INTERFACE, INC.	#	JAN	0.0	2.2	2.6	2.1	2.5	2.4	NA	58.1	63.2	60.6	62.3	39.4	NA	162.0	185.8	198.4	175.2	84.5
MLKN	†	MILLERKNOLL, INC.	#	MAY	1.5	1.9	2.0	1.5	1.6	1.3	47.4	23.8	45.0	27.6	28.7	24.6	313.8	67.8	126.7	130.3	120.4	188.2
MSA	†	MSA SAFETY INCORPORATED		DEC	2.4	2.6	2.5	2.3	2.2	2.1	41.7	25.3	31.0	34.8	42.6	39.3	129.3	58.5	79.0	91.1	134.5	144.7
PBI	§	PITNEY BOWES INC.		DEC	1.1	1.1	1.4	1.4	1.4	1.0	95.3	97.1	90.5	96.8	95.0	103.9	1,400.9	970.9	408.1	379.6	467.7	NM
DIVERSIFIED SUPPORT SERVICES																						
CTAS	[]	CINTAS CORPORATION	#	MAY	1.8	1.5	2.6	2.0	2.5	1.7	43.5	31.6	45.5	51.8	45.7	54.6	212.3	187.5	189.9	260.4	210.9	336.4
CPRT	[]	COPART, INC.		JUL	4.0	2.7	2.4	2.6	1.9	1.8	10.1	13.8	18.4	20.1	33.4	42.2	31.0	65.3	98.7	92.3	193.2	255.9
HCSG	§	HEALTHCARE SERVICES GROUP, INC.		DEC	2.9	3.5	3.5	3.1	2.9	4.1	0.0	0.0	2.2	6.8	8.8	0.0	0.0	0.0	2.7	8.7	10.3	0.0
IAA	†	IAA, INC.	#	JAN	0.0	1.3	2.4	1.9	0.7	0.7	NA	77.1	94.7	112.3	0.0	0.0	NA	691.7	304.8	580.1	0.0	0.0
KAR	§	KAR AUCTION SERVICES, INC.		DEC	1.1	1.4	1.3	1.3	1.3	1.2	89.6	77.6	94.6	99.5	96.9	96.9	928.0	339.7	457.1	594.7	538.1	720.2
MATW	§	MATTHEWS INTERNATIONAL CORPORATION		SEP	1.8	1.8	2.1	2.1	2.1	2.2	54.2	56.9	55.5	51.6	52.7	54.5	279.3	311.6	294.7	281.4	284.5	269.8
UNF	§	UNIFIRST CORPORATION		AUG	4.3	4.6	4.8	4.0	4.6	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VVI	§	VIAD CORP		DEC	1.1	0.9	1.1	0.5	0.6	0.5	62.7	46.2	36.1	49.4	11.2	16.7	1,716.8	NM	1,328.6	NM	-45.8	-43.6
SECURITY AND ALARM SERVICES																						
CXW	§	CORECIVIC, INC.		DEC	1.8	2.3	1.2	1.0	1.1	1.1	52.1	55.3	58.3	55.8	49.8	49.6	520.9	432.9	2,896.1	25,074.4	3,921.2	5,389.1
BCO	†	THE BRINK'S COMPANY		DEC	1.4	1.4	1.2	1.4	1.8	1.1	91.8	92.3	88.3	90.9	78.8	68.8	477.1	470.9	634.6	386.4	166.5	470.5
GEO	§	THE GEO GROUP, INC.		DEC	2.5	1.7	1.4	0.9	1.6	1.4	75.0	76.0	73.2	69.9	68.1	69.2	518.0	961.9	1,863.9	NM	1,218.6	1,132.7

Note: Data as originally reported. CAGR-Compound annual growth rate.
[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.
Souce: S&P Capital IQ.

Ticker		Company		Yr. End	Price/Earnings Ratio (High-Low) 2021	2020	2019	2018	2017	2016	Dividend Payout Ratio (%) 2021	2020	2019	2018	2017	2016	Dividend Yield (High-Low, %) 2021	2020	2019	2018	2017	2016
COMMERCIAL PRINTING																						
BRC	§	BRADY CORPORATION		JUL	24 - 15	28 - 18	21 - 15	23 - 18	21 - 17	21 - 12	35.3	40.7	34.1	47.1	43.8	50.9	2.1 - 1.6	2.3 - 1.5	2.3 - 1.5	2.3 - 1.7	2.6 - 2.0	2.7 - 2.1
DLX	§	DELUXE CORPORATION		DEC	32 - 18	404 - 155	NM - NM	24 - 12	16 - 14	16 - 11	82.5	967.7	NM	37.9	25.2	25.6	7.2 - 3.5	4.8 - 2.5	6.3 - 2.3	3.3 - 2.2	2.7 - 1.5	1.8 - 1.6
ENVIRONMENTAL AND FACILITIES SERVICES																						
ABM	§	ABM INDUSTRIES INCORPORATED		OCT	29 - 19	9051 - 4565	22 - 14	30 - 19	680 - 580	40 - 26	40.4	16433.3	37.4	47.0	1039.5	64.5	2.1 - 1.5	2.2 - 1.4	3.6 - 1.8	2.7 - 1.7	2.5 - 1.5	1.7 - 1.5
CLH	†	CLEAN HARBORS, INC.		DEC	31 - 20	36 - 13	50 - 27	62 - 39	35 - 28	NM - NM	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
HSC	§	HARSCO CORPORATION		DEC	NM - NM	NM - NM	4 - 3	18 - 9	225 - 120	NM - NM	0.0	0.0	0.0	0.0	0.0	NM	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
RSG	[]	REPUBLIC SERVICES, INC.		DEC	34 - 22	34 - 22	27 - 21	24 - 20	18 - 15	32 - 24	42.8	54.0	45.8	44.5	34.5	68.4	1.6 - 1.3	1.9 - 1.3	2.4 - 1.6	2.2 - 1.7	2.2 - 1.9	2.3 - 2.0
ROL	[]	ROLLINS, INC.		DEC	58 - 45	80 - 40	70 - 51	60 - 43	58 - 40	44 - 31	44.1	44.7	68.3	53.2	55.2	51.3	1.7 - 1.2	1.5 - 0.7	1.7 - 0.6	1.6 - 1.1	1.5 - 1.0	1.7 - 1.2
SRCL	†	STERICYCLE, INC.		DEC	NM - NM	NM - NM	NM - NM	NM - NM	317 - 228	61 - 34	0.0	0.0	0.0	NM	85.6	19.1	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
TTEK	†	TETRA TECH, INC.		OCT	39 - 23	34 - 21	31 - 17	29 - 18	24 - 18	27 - 16	17.2	20.0	18.7	17.9	18.4	23.6	0.8 - 0.4	0.7 - 0.5	0.9 - 0.6	1.0 - 0.7	1.0 - 0.7	1.0 - 0.8
WM	[]	WASTE MANAGEMENT, INC.		DEC	39 - 25	36 - 25	31 - 22	21 - 18	19 - 16	27 - 19	53.4	62.0	52.5	41.7	38.5	61.4	1.8 - 1.4	2.1 - 1.4	2.5 - 1.6	2.4 - 1.7	2.4 - 2.0	2.5 - 2.1
OFFICE SERVICES AND SUPPLIES																						
HNI	§	HNI CORPORATION	#	JAN	30 - 13	43 - 31	18 - 13	24 - 15	27 - 15	30 - 16	0.0	89.9	124.3	47.3	54.7	55.2	3.8 - 2.7	6.7 - 3.0	4.1 - 2.8	3.5 - 2.6	3.5 - 2.0	3.4 - 2.0
TILE	§	INTERFACE, INC.	#	JAN	18 - 6	NM - NM	19 - 10	31 - 20	22 - 17	32 - 19	0.0	4.3	NM	19.4	30.8	29.1	0.4 - 0.2	4.7 - 0.4	2.5 - 1.4	1.9 - 1.0	1.4 - 1.0	1.6 - 1.1
MLKN	†	MILLERKNOLL, INC.	#	MAY	16 - 7	NM - NM	15 - 11	19 - 14	17 - 13	14 - 10	NM	19.8	NM	28.4	33.1	31.8	2.4 - 1.5	2.9 - 0.0	5.5 - 0.0	2.7 - 2.0	2.4 - 1.7	2.5 - 1.8
MSA	†	MSA SAFETY INCORPORATED		DEC	318 - 257	48 - 27	36 - 26	34 - 23	126 - 97	29 - 16	321.4	53.7	46.0	46.1	201.9	53.4	1.7 - 1.2	1.2 - 1.0	1.9 - 1.1	1.7 - 1.3	1.9 - 1.4	2.1 - 1.6
PBI	§	PITNEY BOWES INC.		DEC	NM - NM	NM - NM	7 - 3	11 - 4	13 - 7	44 - 29	NM	NM	18.2	58.1	57.3	151.5	8.6 - 2.9	3.8 - 1.5	10.9 - 2.6	13.3 - 2.5	11.5 - 5.3	7.8 - 4.5
DIVERSIFIED SUPPORT SERVICES																						
CTAS	[]	CINTAS CORPORATION	#	MAY	35 - 24	36 - 19	28 - 19	24 - 16	28 - 20	15 - 13	30.4	40.6	30.6	24.9	20.8	29.6	1.0 - 0.8	1.3 - 0.7	1.6 - 0.8	1.3 - 0.7	1.1 - 0.9	1.3 - 0.9
CPRT	[]	COPART, INC.		JUL	37 - 23	35 - 20	31 - 18	33 - 17	18 - 14	22 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
HCSG	§	HEALTHCARE SERVICES GROUP, INC.		DEC	55 - 27	23 - 13	51 - 24	50 - 32	46 - 32	39 - 31	135.7	61.5	91.3	68.5	62.6	68.9	7.1 - 4.2	5.0 - 2.4	4.5 - 2.6	3.7 - 1.6	2.1 - 1.4	1.9 - 1.4
IAA	†	IAA, INC.	#	JAN	30 - 11	34 - 25	NA - NA	NA - NA	NA - NA		0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
KAR	§	KAR AUCTION SERVICES, INC.		DEC	128 - 85	NM - NM	44 - 14	26 - 19	19 - 15	27 - 20	0.0	9800.0	87.2	57.4	48.3	70.6	0.0 - 0.0	0.0 - 0.0	8.0 - 0.0	5.7 - 2.2	2.9 - 2.2	3.2 - 2.6
MATW	§	MATTHEWS INTERNATIONAL CORPORATION		SEP	472 - 234	NM - NM	NM - NM	19 - 14	33 - 25	31 - 23	952.0	NM	NM	22.9	29.3	29.1	3.5 - 2.2	3.9 - 2.0	4.7 - 2.0	2.8 - 1.4	1.6 - 1.1	1.1 - 0.9
UNF	§	UNIFIRST CORPORATION		AUG	32 - 20	30 - 18	22 - 14	23 - 17	42 - 34	21 - 16	12.0	11.6	4.6	2.6	4.1	2.3	0.8 - 0.4	0.6 - 0.4	0.8 - 0.2	0.3 - 0.2	0.3 - 0.1	0.1 - 0.1
VVI	§	VIAD CORP		DEC	NM - NM	NM - NM	70 - 48	26 - 19	22 - 15	23 - 13	NM	NM	36.7	16.6	14.1	19.2	0.0 - 0.0	0.0 - 0.0	0.7 - 0.0	0.9 - 0.6	0.9 - 0.6	0.9 - 0.7
SECURITY AND ALARM SERVICES																						
CXW	§	CORECIVIC, INC.		DEC	NM - NM	39 - 13	15 - 9	19 - 13	23 - 14	19 - 7	NM	195.7	110.9	128.3	112.5	116.2	0.0 - 0.0	0.0 - 0.0	20.2 - 0.0	11.7 - 7.3	9.1 - 6.6	9.3 - 4.8
BCO	†	THE BRINK'S COMPANY		DEC	39 - 28	304 - 110	163 - 109	NM - NM	264 - 125	65 - 38	35.4	188.1	103.1	NM	165.9	57.4	1.7 - 1.1	1.4 - 0.7	1.7 - 0.6	1.0 - 0.6	1.0 - 0.7	1.0 - 0.6
GEO	§	THE GEO GROUP, INC.		DEC	16 - 9	19 - 9	17 - 10	23 - 16	28 - 19	18 - 10	39.4	191.2	139.6	158.2	155.5	131.0	0.0 - 0.0	15.9 - 0.0	19.1 - 10.8	13.9 - 7.9	9.6 - 6.8	7.7 - 5.5

Note: Data as originally reported. CAGR-Compound annual growth rate.
[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.
Souce: S&P Capital IQ.

Ticker		Company		Yr. End	Earnings per Share ($)						Tangible Book Value per Share ($)						Share Price (High-Low, $)					
					2021	2020	2019	2018	2017	2016	2021	2020	2019	2018	2017	2016	2021	2020	2019	2018	2017	2016
COMMERCIAL PRINTING																						
BRC	§	BRADY CORPORATION		JUL	2.5	2.1	2.4	1.7	1.8	1.6	4.9	8.2	7.6	5.6	4.1	2.3	61.8 - 44.9	58.2 - 33.0	59.1 - 42.2	47.4 - 35.0	40.5 - 31.7	39.6 - 20.4
DLX	§	DELUXE CORPORATION		DEC	1.5	0.1	-5.2	3.2	4.7	4.7	-33.5	-11.1	-12.1	-13.6	-10.4	-13.1	48.4 - 28.6	50.4 - 18.9	54.1 - 36.1	78.9 - 36.7	77.4 - 66.4	73.4 - 49.5
ENVIRONMENTAL AND FACILITIES SERVICES																						
ABM	§	ABM INDUSTRIES INCORPORATED		OCT	1.9	0.0	1.9	1.5	0.1	1.0	-15.5	-6.2	-8.9	-11.1	-14.0	-0.8	55.5 - 36.3	41.8 - 19.8	42.7 - 30.7	40.0 - 25.6	45.1 - 36.6	45.0 - 26.5
CLH	†	CLEAN HARBORS, INC.		DEC	3.7	2.4	1.7	1.2	1.8	-0.7	-6.6	7.8	5.8	3.8	4.3	2.1	118.9 - 73.7	88.4 - 29.5	88.0 - 48.1	72.5 - 44.7	61.6 - 49.6	58.2 - 37.1
HSC	§	HARSCO CORPORATION		DEC	0.0	-0.3	6.3	1.6	0.1	-1.1	-6.8	-8.5	-3.8	-2.6	-3.4	-4.1	23.7 - 13.3	23.4 - 4.2	28.0 - 16.3	30.0 - 15.6	22.0 - 11.4	15.3 - 3.6
RSG	[]	REPUBLIC SERVICES, INC.		DEC	4.0	3.0	3.3	3.2	3.8	1.8	-12.9	-11.7	-11.4	-11.1	-10.5	-10.8	146.0 - 88.6	103.8 - 65.4	90.6 - 70.4	78.5 - 60.3	68.0 - 56.2	58.0 - 41.8
ROL	[]	ROLLINS, INC.		DEC	0.7	0.5	0.4	0.5	0.4	0.3	-0.3	-0.4	-0.3	0.2	0.2	0.3	41.8 - 31.4	43.0 - 20.5	29.3 - 20.9	28.6 - 19.9	21.5 - 14.6	15.2 - 10.5
SRCL	†	STERICYCLE, INC.		DEC	-0.3	-0.6	-3.8	-2.9	0.3	2.1	-15.0	-16.1	-22.7	-25.1	-29.2	-31.1	80.0 - 55.8	79.5 - 38.5	66.6 - 35.8	76.7 - 34.4	88.0 - 61.3	128.9 - 71.5
TTEK	†	TETRA TECH, INC.		OCT	4.3	3.2	2.8	2.4	2.0	1.4	1.6	0.6	0.9	2.7	2.9	1.8	192.9 - 113.2	127.2 - 63.6	90.3 - 48.5	72.6 - 44.7	50.9 - 38.9	44.3 - 22.9
WM	[]	WASTE MANAGEMENT, INC.		DEC	4.3	3.5	3.9	4.5	4.4	2.7	-6.7	-6.1	0.0	-1.7	-1.8	-3.4	168.0 - 109.1	126.8 - 85.3	121.8 - 87.3	95.5 - 78.4	86.9 - 69.0	71.8 - 50.4
OFFICE SERVICES AND SUPPLIES																						
HNI	§	HNI CORPORATION	#	JAN	0.0	1.4	1.0	2.5	2.1	2.0	0.0	2.8	3.1	3.2	2.3	0.5	46.9 - 32.2	42.9 - 16.6	42.2 - 29.9	45.4 - 32.6	56.9 - 31.2	57.0 - 29.8
TILE	§	INTERFACE, INC.	#	JAN	0.0	0.9	-1.2	1.3	0.8	0.9	0.0	2.4	1.2	0.4	0.2	4.4	18.0 - 9.7	17.6 - 5.1	19.4 - 10.4	26.3 - 13.5	25.7 - 17.2	19.1 - 13.7
MLKN	†	MILLERKNOLL, INC.	#	MAY	-0.4	2.9	-0.2	2.7	2.1	2.1	-8.7	5.0	1.6	5.0	4.1	2.7	51.2 - 32.7	42.3 - 14.4	49.9 - 29.6	41.8 - 28.7	40.4 - 28.6	36.5 - 22.6
MSA	†	MSA SAFETY INCORPORATED		DEC	0.5	3.2	3.5	3.2	0.7	2.4	-2.9	5.9	2.9	1.2	-0.3	3.8	172.8 - 136.9	155.5 - 83.6	128.2 - 90.8	110.8 - 71.5	86.4 - 66.0	71.3 - 37.7
PBI	§	PITNEY BOWES INC.		DEC	0.0	-1.1	1.1	1.3	1.3	0.5	-6.6	-7.2	-7.2	-7.7	-10.0	-9.9	15.5 - 6.2	7.7 - 1.7	8.3 - 3.1	14.8 - 5.5	16.6 - 9.5	21.8 - 14.2
DIVERSIFIED SUPPORT SERVICES																						
CTAS	[]	CINTAS CORPORATION	#	MAY	11.7	10.2	8.1	8.0	7.6	4.4	-2.5	2.3	-2.2	-4.7	-5.1	-11.6	461.4 - 314.6	369.2 - 154.3	277.9 - 164.5	217.3 - 147.4	163.5 - 113.0	122.2 - 80.0
CPRT	[]	COPART, INC.		JUL	3.9	2.9	2.5	1.7	1.7	1.1	13.1	8.8	6.0	5.0	2.9	2.2	161.1 - 101.9	131.0 - 55.7	92.4 - 46.7	67.1 - 39.2	44.8 - 27.6	28.5 - 16.1
HCSG	§	HEALTHCARE SERVICES GROUP, INC.		DEC	0.6	1.3	0.9	1.1	1.2	1.1	4.8	5.5	5.2	4.9	4.3	3.9	35.8 - 16.3	31.3 - 15.8	44.8 - 21.2	56.2 - 35.0	55.7 - 37.5	42.2 - 31.5
IAA	†	IAA, INC.	#	JAN	0.0	2.2	1.4	1.4	1.4	1.2	0.0	-5.0	-4.6	-6.2	0.0	0.0	66.9 - 46.5	66.4 - 21.8	50.0 - 35.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
KAR	§	KAR AUCTION SERVICES, INC.		DEC	0.2	-0.2	1.4	2.4	2.6	1.6	-13.1	-7.9	-5.3	-5.4	-10.7	-10.5	20.8 - 13.6	24.1 - 9.4	63.2 - 20.4	64.6 - 45.4	51.5 - 40.3	44.1 - 31.5
MATW	§	MATTHEWS INTERNATIONAL CORPORATION		SEP	0.1	-2.8	-1.2	3.4	2.3	2.0	-12.7	-15.3	-16.9	-16.4	-16.6	-16.7	43.8 - 28.0	40.4 - 17.0	46.7 - 28.6	61.3 - 37.7	77.9 - 52.6	77.1 - 45.0
UNF	§	UNIFIRST CORPORATION		AUG	7.9	7.1	9.3	8.2	3.4	6.2	72.0	65.1	61.5	51.5	49.6	49.6	258.9 - 189.8	217.9 - 121.9	214.4 - 132.4	193.1 - 133.2	171.8 - 124.9	147.7 - 96.9
VVI	§	VIAD CORP		DEC	-5.0	-18.6	1.0	2.4	2.8	2.1	-8.3	-3.7	4.2	6.1	4.7	1.5	52.7 - 33.9	70.2 - 11.3	72.3 - 48.1	62.5 - 46.2	61.9 - 42.1	47.4 - 25.9
SECURITY AND ALARM SERVICES																						
CXW	§	CORECIVIC, INC.		DEC	-0.4	0.5	1.6	1.3	1.5	1.9	11.3	11.5	10.7	10.7	11.6	11.7	12.4 - 5.9	17.9 - 5.8	24.4 - 14.7	26.1 - 17.2	35.3 - 21.4	35.1 - 13.0
BCO	†	THE BRINK'S COMPANY		DEC	2.1	0.3	0.6	-0.7	0.3	0.7	-37.6	-30.6	-17.3	-15.2	-4.8	2.6	84.7 - 58.5	97.1 - 33.2	94.6 - 62.8	88.1 - 59.1	87.3 - 41.0	45.1 - 25.9
GEO	§	THE GEO GROUP, INC.		DEC	0.6	0.9	1.4	1.2	1.2	1.3	0.5	-0.3	0.1	0.3	1.3	1.4	11.0 - 5.0	18.4 - 8.0	24.0 - 13.3	28.1 - 18.4	34.3 - 23.1	24.0 - 10.8

Note: Data as originally reported. CAGR-Compound annual growth rate.
[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.
Souce: S&P Capital IQ.

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