



William & Mary Women's Leadership Summit

2021 Stock Pitch Competition

Team 9: Sarah Her, Tangya Tan, Danbi Rhee

Johns Hopkins University

Waste Management, Inc.

Investment Thesis: Waste Management's ability to effectively implement cost-saving plus its under-valuation by the market makes it an attractive target of investment

Recommendation: **BUY**

Current Price: **\$122.62 (3/15/2021)**

Price Target: **\$158.89 (29.58% upside)**

Stock: WM (NYSE)
52 wk high: \$125.56
52 wk low: \$85.34
Dividend Yield: 1.89%
Market Cap: 51.887B
Current EV: 30.21
LTM P/E: 30.2
P/B: 6.91
Revenue (2020): \$15218M
OP Margin (2020): 16.08%
EV/EBITDA: 15.50
P/CF: 15.138
EPS: \$4.03

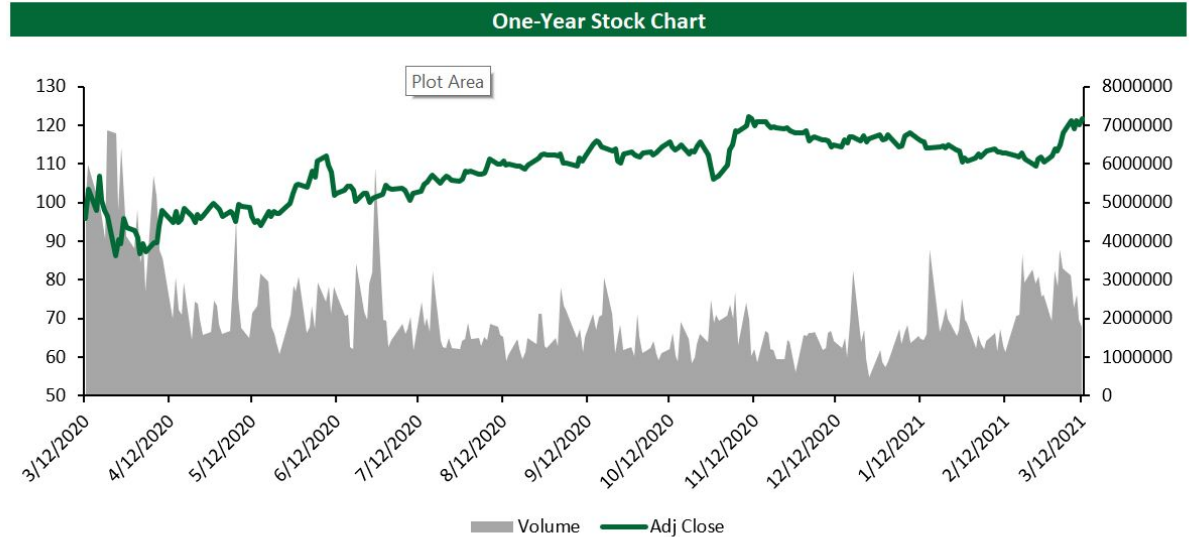


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INDUSTRY OVERVIEW

Overview & Trend

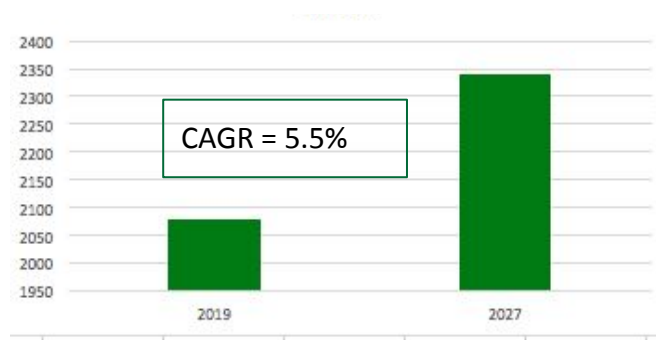
- Increased use of computer technology in waste management, including using robots at recycling facilities to sort waste, GPS-operated compactors, chipped recycle bins that record which households are recycling
- More recycling programs in addition to composting initiatives
- Larger interest in waste-to-energy (WTE) methods
 - The recycling industry is putting more pressure on WTE projects
 - Governments are promoting WTE efforts



Key Statistics

- The market size, measured by revenue, of the Waste Collection Services industry is \$51.5bn in 2021.
- The market size of the Waste Collection Services industry is expected to decline -0.3% in 2021.
- The market size of the Waste Collection Services industry in the US has grown 0.4% per year on average between 2016 and 2021.

Waste Collection Market Size (\$Bn)



Target Overview

Waste Management Company (WM) is North America's leading provider of comprehensive waste management environmental services, providing services throughout the United States and Canada. WM partners with residential, commercial, industrial, and municipal customers and communities they serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy. WM is also a leading developer, operator and owner of landfill gas-to-energy (LFGTE) facilities in the US.

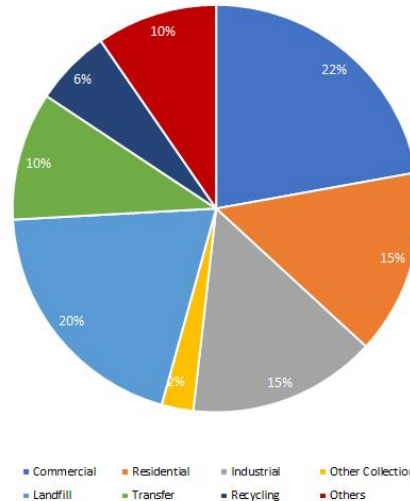
Business Overview

- Founded: 1894
- IPO Year: 1971
- Headquarters: Houston, TX
- CEO: James C. Fish Jr. (2016-)
- Employees: 48,250
- Locations: U.S. & Canada, and broader North America territories

Facilities

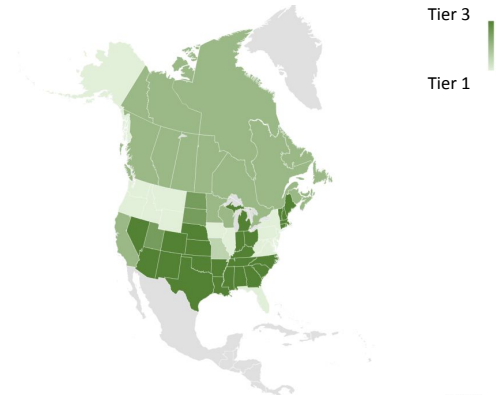
- 263 solid waste landfills & 5 secure hazardous waste landfills
- 164 landfill gas beneficial-use projects
- 348 transfer stations
- 103 MRFs
- 150+ LFGTE

Revenue Breakdown



Operating Geography

- **Tier 1:** Southern US, with the exception of Southern California and Florida; New England and tri-state Area of Michigan, Indiana and Ohio
- **Tier 2:** California, Canada, Wisconsin, and Minnesota
- **Tier 3:** Pacific Northwest, Mid-Atlantic region, Florida, Illinois, and Missouri Valley area



Industry & Target Overview

Investment Thesis & Catalysts

Valuation

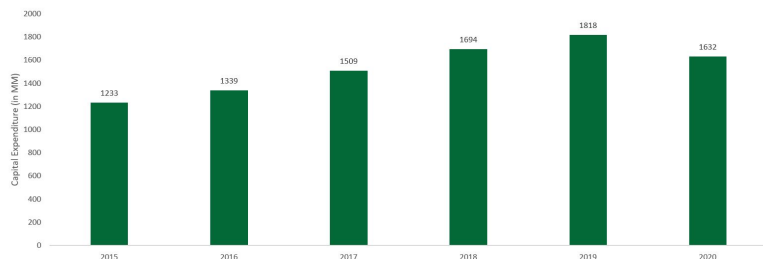
Risks & Investment Horizon

Industry & Target Overview

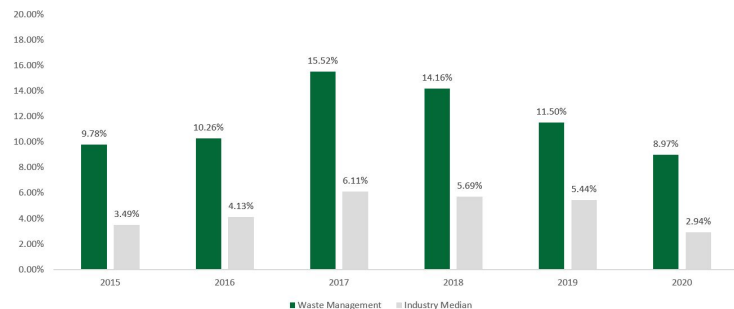
Thesis 1

Ability to drive organic growth from capital invested and maintain operating margin through effective cost-saving measures leads to margin expansion potentials post-COVID-19.

Reduced & Alternated Capital Investments since 2017



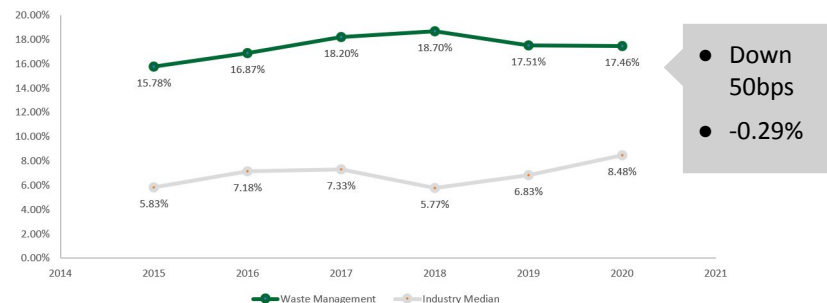
Return on Invested Capital (ROIC)



Proactive Cost-Saving from the Onset of COVID-19

- 2020 Revenue declined by 1.5%, driven by COVID-19 by offset by
 - Higher yield generation from collection and disposal services
 - Higher yield in recycling business
 - Revenues from Advanced Disposal
- Management proactively started cost-saving and driving higher yield starting February, 2020

Maintained Margin throughout COVID-19



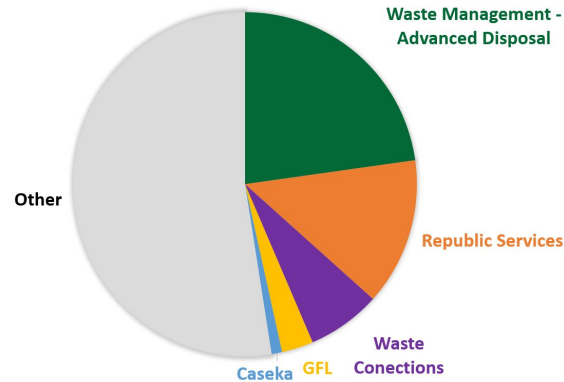
Thesis 2

Industry-leading position that offers complete suite of services and is best positioned for recycling and ESG.

Suite of Services Offered

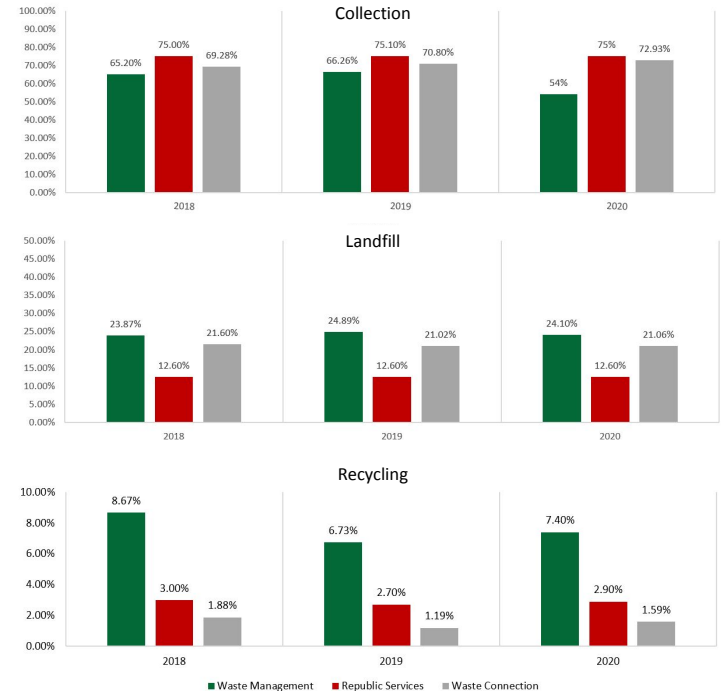
Collection (commercial, industrial, residential)
Landfill (268 landfills)
Transfer (348 transfer stations)
Recycling
MRF (103 facilities)

Specialized Waste Streams
Sustainability Consulting
Electronics Recycling
Materials Marketing
LFGTE (150+ facilities)



- Waste Management operates approximately 270 landfills, which is 40% more than Republic Services (189 landfills) and almost 3 times the size of Waste Connections' landfill footprint
- Waste Management is the only firm in the industry able to offer a digitized full suite of services

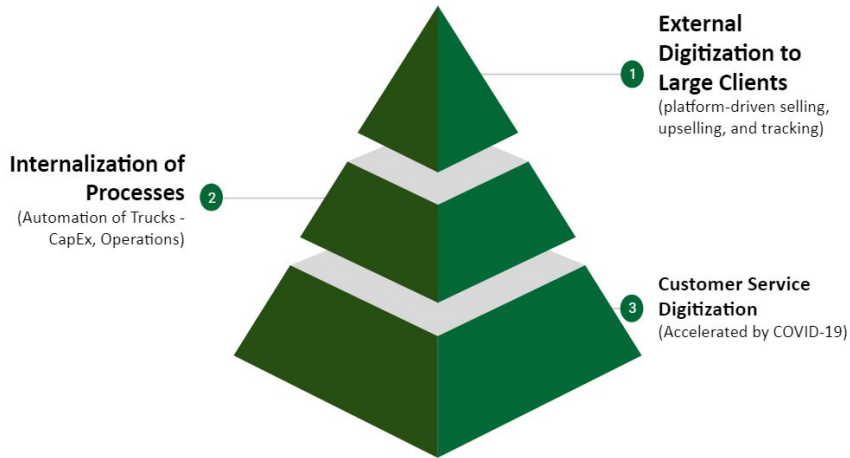
Collection vs. Recycling as a % Business Revenue



Thesis 3

Increased digitization efforts and diversified recycling technology capabilities enhance internalization and satisfy the demand for comprehensive services from large industrial and commercial customers

Digitization Initiatives



Business Implications

1. Digitization during COVID-19: the investment into digital customer service towards residential, industrial, commercial clients. This is expected to carry over to post-COVID-19 world
2. Digitization to make efficient of internal processes happen on project-basis, ties into capital expenditure and technology development
3. Implementing cloud-services for large clients allow them to better adjust or call for additional services and visualize their ESG status. Expected to expand throughout post-COVID-19

CATALYSTS

Increasingly Environmentally Conscious Population

With the environment becoming a larger concern for more people, there's a push towards recycling and WTE efforts

Pandemic Recovery

As more and more businesses are starting to open up and return to the level of activity pre-pandemic, more waste management services are needed

Advanced Disposal Acquisition

By completing a \$4.6 billion acquisition of Advanced Disposal, WM gained approximately 3 million new commercial, industrial and residential customers across 16 states in the Eastern US

Industry & Target Overview

Investment Thesis & Catalysts

Valuation

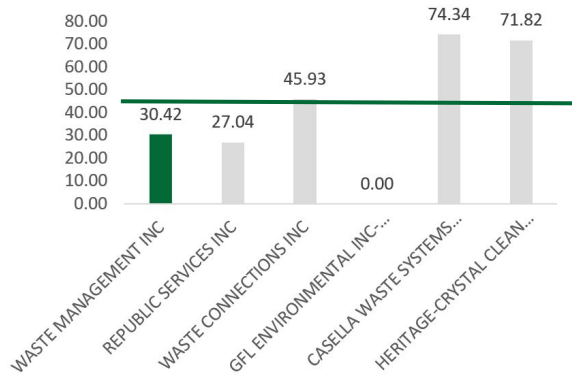
Risks & Investment Horizon

Appendix

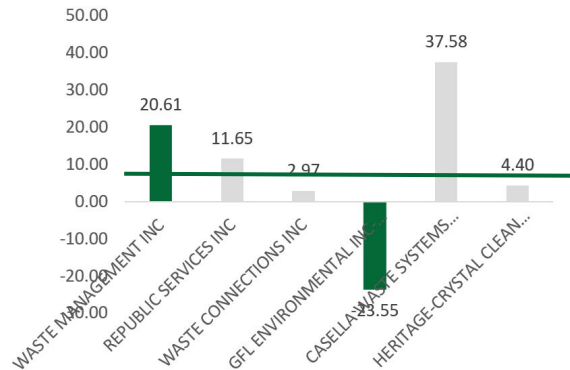
COMPARABLE COMPANIES ANALYSIS

Name	Price	Mkt Cap (USD) MM	P/E	EV / EBITDA	OPM LF (%)	ROE LF	ROA LF	ROIC LF	Total Debt/Total Assets (%)
WASTE MANAGEMENT INC	122.62	51887.01	30.42	14.70	16.08	20.61	5.24	8.97	48.82
REPUBLIC SERVICES INC	96.57	30796.01	27.04	12.19	16.81	11.65	4.19	7.71	51.02
WASTE CONNECTIONS INC	103.42	27118.86	45.93	19.15	14.10	2.97	1.48	2.63	39.15
GFL ENVIRONMENTAL INC-SUB V	32.57	10630.23	N/A	17.79	-23.94	-23.55	-7.09	-2.12	40.42
CASELLA WASTE SYSTEMS INC-A	64.82	3311.62	74.34	20.38	7.10	37.58	8.57	13.56	36.97
HERITAGE-CRYSTAL CLEAN INC	29.05	701.69	71.82	5.80	6.23	4.40	2.56	3.24	25.14
MEDIAN	80.69	18874.54	45.93	16.24	10.60	8.03	3.38	5.47	39.78
MEAN	74.84	20740.90	49.91	15.00	6.06	8.94	2.49	5.67	40.25
HIGH	122.62	51887.01	74.34	20.38	16.81	37.58	8.57	13.56	51.02
LOW	29.05	701.69	27.04	5.80	-23.94	-23.55	-7.09	-2.12	25.14

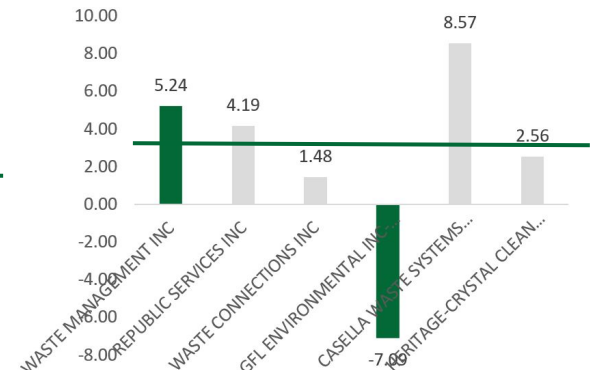
P/E Multiple



Return on Equity (LF)



Return on Asset (LF)



DISCOUNTED CASH FLOW ANALYSIS - Base Case

FCF Buildup - Base Case						
Fiscal Year	2020A	2021P	2022P	2023P	2024P	2025P
Fiscal Year End Date	12/31/20	12/31/21	12/31/22	12/31/23	12/31/24	12/31/25
Revenue	15,218	16,740	17,409	18,454	19,377	20,345
<i>Revenue Growth</i>	-1.53%	10.00%	4.00%	6.00%	5.00%	5.00%
EBITDA	4,299	4,687	4,875	5,259	5,561	5,880
(D&A)	(1,671)	(1,674)	(1,741)	(1,845)	(1,938)	(2,035)
EBIT	4,299	4,687	4,875	5,259	5,561	5,880
Tax Rate	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
NOPAT	3,396	3,703	3,851	4,155	4,393	4,645
D&A		1,674	1,741	1,845	1,938	2,035
(Change in NWC)		(6)	(2)	(3)	(3)	(3)
(CAPEX)		(2,009)	(1,915)	(2,011)	(2,093)	(2,218)
Unlevered FCF		3,362	3,675	3,985	4,235	4,459
<i>% growth</i>			9.29%	8.46%	6.27%	5.28%
Valuation Date: 3/15/21						
End of Fiscal Year: on 12/31						
WACC		6.50%	6.50%	6.50%	6.50%	6.50%
Discount Periods		0.75	1.75	2.75	3.75	4.75
Discounting Factor		95.39%	89.56%	84.10%	78.97%	74.15%
Terminal Discount Factor						74.15%
PV of unlevered FCF		3,207	3,291	3,352	3,344	3,306
NPV of 5-yr Projected Cash Flows						16,501

General Assumptions	
Share price as of last close (US)	122.62
Latest Closing Date	3/15/2021
Latest Basic Share Count	423.2
Latest Market Cap	51.887B
<i>Weighted Average Cost of Capital</i>	6.50%

Terminal Value - EXIT Multiple	
Terminal year EBITDA	5,880
Comps Derived Terminal Multiple	14.7
Terminal Value	86,434
Terminal Discount Factor	74.15%
PV of TV	64,087
NPV of 5-yr Projected Cash Flows	16,501
Enterprise Value	80588

Equity Waterfall - Using Multiple Method	
Enterprise Value	80588
Cash & ST Investments	553
Long Term Investments	426
(Debt)	(14,326)
(Preferred Stock)	0
Equity Value	67,241
Shares outstanding	423.2
Implied Share Price (USD)	158.89
<i>Upside - Base Case</i>	29.58%

PRICE TARGET

BASE CASE:

Target: \$158.89

(29.58% Upside)

ASSUMPTIONS:

- 6.5% WACC
- 14.7x EBITDA exit multiple
- Boost in 2021 revenue, continued growth in parallel with recovery and expansions

BULL CASE:

Target: \$212.71

(73.47% Upside)

ASSUMPTIONS:

- 4.5% WACC
- 17.2x EBITDA exit multiple
- Boost in 2021 revenue, flatline 6.0% revenue growth from 2022
- Faster growing EBITDA margins

BEAR CASE:

Target: \$102.00

(16.82% Downside)

ASSUMPTIONS:

- 7.5% WACC
- 12.2x EBITDA exit multiple
- Smaller boost in 2021 revenue, flatline pre-covid rate onwards

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INVESTMENT RISKS & MITIGANTS

China's import restrictions has adversely affected the recycling business, **pressuring recycled commodity prices**

WM is transforming the recycling business with **restructured fee-based contracts and investments in technology** which will insulate the business from commodity price swings

Due to the **uncertain rate of COVID-19 recovery**, it's difficult to bring equal or higher pricing rates to returning customers (especially, industrials)

WM has a strong customer base due to its highly developed "people first" culture.

Competition from hundreds of local and regional waste-collection operations keep the pricing backdrop competitive due to support from local governments, flexible labor arrangements and closer relationship with local businesses or residential HOAs

Operating costs, disposal costs, and collection fees vary widely throughout the areas. The prices for waste management (industry as a whole) are determined locally, factors included such as the frequency of collections, the distance to transfer stations or final disposal sites, etc.

RECOMMENDATION

BASE CASE:

Target: \$158.89
(29.58% *Upside*)

BUY:

Waste Management's ability to effectively implement cost-saving plus its under-valuation by the market makes it an attractive target of investment

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APPENDIX - DCF (Bear Case: Downside)

FCF Buildup - Bear Case						
Fiscal Year	2020A	2021P	2022P	2023P	2024P	2025P
Fiscal Year End Date	12/31/20	12/31/21	12/31/22	12/31/23	12/31/24	12/31/25
Revenue	15,218	16,131	16,615	17,197	17,798	18,421
<i>Revenue Growth</i>	-1.53%	6.00%	3.00%	3.50%	3.50%	3.50%
EBITDA	4,299	4,517	4,652	4,901	5,108	5,324
(D&A)	(1,671)	(1,613)	(1,662)	(1,720)	(1,780)	(1,842)
EBIT	4,299	4,517	4,652	4,901	5,108	5,324
Tax Rate	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
NOPAT	3,396	3,568	3,675	3,872	4,035	4,206
D&A		1,613	1,662	1,720	1,780	1,842
(Change in NWC)		(4)	(2)	(2)	(2)	(2)
(CAPEX)		(1,936)	(1,828)	(1,874)	(1,922)	(2,008)
Unlevered FCF		3,242	3,508	3,715	3,891	4,038
<i>% growth</i>			8.19%	5.92%	4.74%	3.77%
Valuation Date: 3/15/21						
End of Fiscal Year: on 12/31						
WACC		7.50%	7.50%	7.50%	7.50%	7.50%
Discount Periods		0.75	1.75	2.75	3.75	4.75
Discounting Factor		94.72%	88.11%	81.96%	76.25%	70.93%
Terminal Discount Factor						70.93%
PV of unlevered FCF		3,071	3,091	3,045	2,967	2,864
NPV of 5-yr Projected Cash Flows						15,037

General Assumptions	
Share price as of last close (US)	122.62
Latest Closing Date	3/15/2021
Latest Basic Share Count	423.2
Latest Market Cap	51.887B
<i>Weighted Average Cost of Capital</i>	7.50%

Terminal Value - EXIT Multiple	
Terminal year EBITDA	5,324
Comps Derived Terminal Multiple	12.2
Terminal Value	64,950
Terminal Discount Factor	64.98%
PV of TV	42,205
NPV of 5-yr Projected Cash Flows	14,308
Enterprise Value	56513

Equity Waterfall - Using Multiple Method	
Enterprise Value	56513
Cash & ST Investments	553
Long Term Investments	426
(Debt)	(14,326)
(Preferred Stock)	0
Equity Value	43,166
Shares outstanding	423.2
Implied Share Price (USD)	102.00
<i>Downside - Bear Case</i>	-16.82%

APPENDIX - DCF (Bull Case: Upside)

FCF Buildup - Bull Case						
Fiscal Year	2020A	2021P	2022P	2023P	2024P	2025P
Fiscal Year End Date	12/31/20	12/31/21	12/31/22	12/31/23	12/31/24	12/31/25
Revenue	15,218	16,740	17,577	18,631	19,749	20,934
<i>Revenue Growth</i>	-1.53%	10.00%	5.00%	6.00%	6.00%	6.00%
EBITDA	4,299	4,721	5,009	5,310	5,727	6,113
(D&A)	(1,671)	(1,674)	(1,758)	(1,863)	(1,975)	(2,093)
EBIT	4,299	4,721	5,009	5,310	5,727	6,113
Tax Rate	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
NOPAT	3,396	3,729	3,957	4,195	4,525	4,829
D&A		1,674	1,758	1,863	1,975	2,093
(Change in NWC)		(6)	(3)	(3)	(4)	(4)
(CAPEX)		(1,808)	(1,898)	(2,012)	(2,133)	(2,261)
Unlevered FCF		3,590	3,814	4,042	4,363	4,658
<i>% growth</i>			6.25%	5.99%	7.93%	6.76%
Valuation Date: 3/15/21						
End of Fiscal Year: on 12/31						
WACC		4.50%	4.50%	4.50%	4.50%	4.50%
Discount Periods		0.75	1.75	2.75	3.75	4.75
Discounting Factor		96.75%	92.59%	88.60%	84.78%	81.13%
Terminal Discount Factor						81.13%
PV of unlevered FCF		3,473	3,531	3,582	3,699	3,779
NPV of 5-yr Projected Cash Flows						18,064

General Assumptions	
Share price as of last close (US)	122.62
Latest Closing Share Price Count	3/15/2021
Latest Basic Share Count	423.2
Latest Market Cap	51.887B
<i>Weighted Average Cost of Capital</i>	4.50%

Terminal Value - EXIT Multiple	
Terminal year EBITDA	6,113
Comps Derived Terminal Multiple	17.2
Terminal Value	105,140
Terminal Discount Factor	81.13%
PV of TV	85,303
NPV of 5-yr Projected Cash Flows	18,064
Enterprise Value	103368

Equity Waterfall - using multiple method	
Enterprise Value	103368
Cash & ST Investments	553
Long Term Investments	426
(Debt)	(14,326)
(Preferred Stock)	0
Equity Value	90,021
Shares outstanding	423.2
Implied Share Price (USD)	212.71
<i>Upside - Bull Case</i>	73.47%



William & Mary Women's Leadership Summit
2021 Stock Pitch Competition

Waste Management, Inc. (WM)

Team 9: Sarah Her, Danbi Rhee, Tangya Tan
Johns Hopkins University

Waste Management's ability to effectively implement cost-saving plus its under-valuation by the market makes it an attractive target of investment

Industry Overview: The waste industry encompasses everything from waste management to waste recycling and prevention. The waste management market size is over \$2080 billion and expected to reach about \$2340 billion by 2027. Due to the surge in population and increase in globalization, waste management services are especially necessary. A few key players in the industry are Waste Management, Republic Services, Waste Connections, Casella, and GFL.

Company Overview: Waste Management Company (WM) is North America's leading provider of comprehensive waste management environmental services, providing services throughout the United States and Canada. WM partners with residential, commercial, industrial, and municipal customers and communities they serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy. WM is also a leading developer, operator and owner of landfill gas-to-energy (LFGTE) facilities in the U.S.

Catalysts: WM benefits/will benefit from various catalysts. First, as the population becomes increasingly environmentally conscious, recycling and waste-to-energy (WTE) projects are becoming more popular. Heavily involved in the recycling business, WM will only grow bigger from this transition. Second, as more businesses are opening up, more waste management services will be needed. Third, WM's \$4.6 billion acquisition of Advanced Disposal gave WM access to roughly 3 million new customers across 16 states.

Recommendation:	BUY
Stock:	WM (NYSE)
Sector:	Industrials
Industry:	Waste Mang.
Latest Closing Date:	3/15/20
Dividend Yield:	1.89%
Latest Share Count:	423.2
Latest Market Cap:	51.887B
52 wk High:	\$125.56
52 wk Low:	\$85.34
Latest Price:	\$122.62
Target Price:	\$158.89

Trading Comp

Name	Price	Mkt Cap (USD) MM	P/E	EV / EBITDA	OPM LF (%)	ROE LF	ROA LF	ROIC LF	Total Debt/Total Assets (%)
WASTE MANAGEMENT INC	122.62	51887.01	30.42	14.70	16.08	20.61	5.24	8.97	48.82
REPUBLIC SERVICES INC	96.57	30796.01	27.04	12.19	16.81	11.65	4.19	7.71	51.02
WASTE CONNECTIONS INC	103.42	27118.86	45.93	19.15	14.10	2.97	1.48	2.63	39.15
GFL ENVIRONMENTAL INC-SUB V	32.57	10630.23	N/A	17.79	-23.94	-23.55	-7.09	-2.12	40.42
CASELLA WASTE SYSTEMS INC-A	64.82	3311.62	74.34	20.38	7.10	37.58	8.57	13.56	36.97
HERITAGE-CRYSTAL CLEAN INC	29.05	701.69	71.82	5.80	6.23	4.40	2.56	3.24	25.14
MEDIAN	80.69	18874.54	45.93	16.24	10.60	8.03	3.38	5.47	39.78
MEAN	74.84	20740.90	49.91	15.00	6.06	8.94	2.49	5.67	40.25
HIGH	122.62	51887.01	74.34	20.38	16.81	37.58	8.57	13.56	51.02
LOW	29.05	701.69	27.04	5.80	-23.94	-23.55	-7.09	-2.12	25.14

DCF Analysis: As a result of the discounted cash flow analysis, the fair value share price of WM (our Base Case) was determined to be \$158.89 (29.58% upside). Comps derived EBITDA exit multiple was utilized to determine terminal value and WACC was retrieved from Bloomberg. Key assumptions included a boost in 2021 revenue due to Advanced Disposal and a continuing expansion of business and growth through favorable factors discussed in the above sections. The Bull Case (lower WACC, higher exit, prolonged higher revenue growth) resulted in a target price of \$214.71 (73.47% upside). The Bear Case (higher WACC, lower exit, flatline of pre-covid revenue rates) resulted in a target price of \$102.00 (16.82% Downside).

Risks and Mitigations: Despite its strong position in the environmental services industry, WM faces a few risks. First, China's import restrictions have pressured recycling commodity prices. However, WM has tried to combat this by restructuring fee-based contracts and investing more in technology. Second, WM is confronted with hundreds of local and regional competitors that have support from local governments, etc. In spite of this, WM still established itself as a leader in this industry by differentiating itself through its focus on sustainability in addition to collaborating with some of its competitors. Third, due to the uncertain rate of recovery from COVID-19, it's difficult to keep pricing the same or higher for returning customers. However, having fostered a "people-first" culture throughout the years, WM has strong customer loyalty.

Recommendation: Waste Management's ability to effectively implement cost-saving plus its under-valuation by the market makes it an attractive target of investment