



charles river



ALPHA CHALLENGE
Kenan-Flagler Business School
The University of North Carolina

November 29th, 2023

Students:

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CRL 4 03/15/2031 Sr. Unsecured Bonds

Recommendation: BUY

Current Price: \$85.91

1-YR Target Price: \$87.03

Potential Return: 7.0%

Company Overview

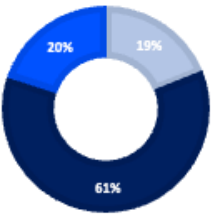
Key Facts:

Charles River Labs is a contract research organization (CRO) that provides products and services to expedite the discovery, development, and safe manufacturing of novel drugs and therapeutics.

Clients include large pharmaceutical companies, government agencies, leading hospitals, and academic institutions.

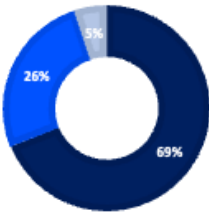
FY 2022 REVENUE BY SEGMENT

■ RMS ■ DSA ■ Manufacturing



FY 2022 REVENUE BY GEOGRAPHY

■ North America ■ Europe ■ Asia-Pacific



CRL's three core business segments

Research Model Services (RMS):
Provides non-human research models (animals) for pre-clinical testing



NCG-HLA-A2.1 Model
(Oncology and infectious diseases)

Discovery & Safety Assessment (DSA):
Offers products and services that enable necessary drug discovery and development activities

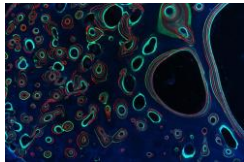


Image from a CRL musculoskeletal bone toxicity study

Manufacturing (MFG):
Provides resources to support the manufacturing and production of drugs and therapies



CRL Cell Therapy Manufacturing facility in Memphis, TN

Research & Development Continuum

Key Competitors:



Capital Structure and Bond Selection

We are recommending the CRL 4% 03/15/2031 Sr. Unsecured Bond

Description	Maturity	Price	Coupon	OAS	Yield to Worst	Duration	Amount (\$'000)
1st Lien Secured Loans							
CRL REV 1L	4/21/2026	-	0	-	-	-	\$ 1,003,744
Senior Unsecured Loans							
CITGRO TL UNSEC	6/12/2024	99.50	4.7	-	-	-	\$ 12,400
Senior Unsecured Bonds							
CRL 4 1/4	5/1/2028	91.20	4.25	185	6.51	3.97	\$ 500,000
CRL 3 3/4	3/15/2029	87.54	3.75	211	6.68	4.67	\$ 500,000
CRL 4	3/15/2031	85.91	4	204	6.66	6.1	\$ 500,000
Total							\$ 2,516,144

Capital Structure	2023E Leverage
1st Lien Secured Loans	.96x
Senior Unsecured Loans	.01x
Senior Unsecured Bonds	1.4x

Leverage Ratios	2023E
EV/EBITDA	12x
Interest Coverage	7.6x

ONE YEAR TIME HORIZON

Current Bond Price	\$ 85.91
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Base Case	
Total Spread Compression	30 bps
Implied Bond Price	\$ 87.03
Annualized Total Return	7.0%

We recommend the CRL 4 03/15/2031 bond due to its longer duration and higher coupon.

1

Critical supplier with a diversified customer base

- No client makes up more than 3% of CRL's revenue or more than 8% of a particular segment's revenue.
- Large footprint in FDA drug approval process.

2

Well-positioned to capitalize on Cell & Gene Therapy market

- CRL's robust product and service offerings make them the partner of choice for companies in the rapidly growing Cell & Gene Therapy market.
- CRL's proprietary technology adds speed, efficiency, and predictability to the R&D process.

3

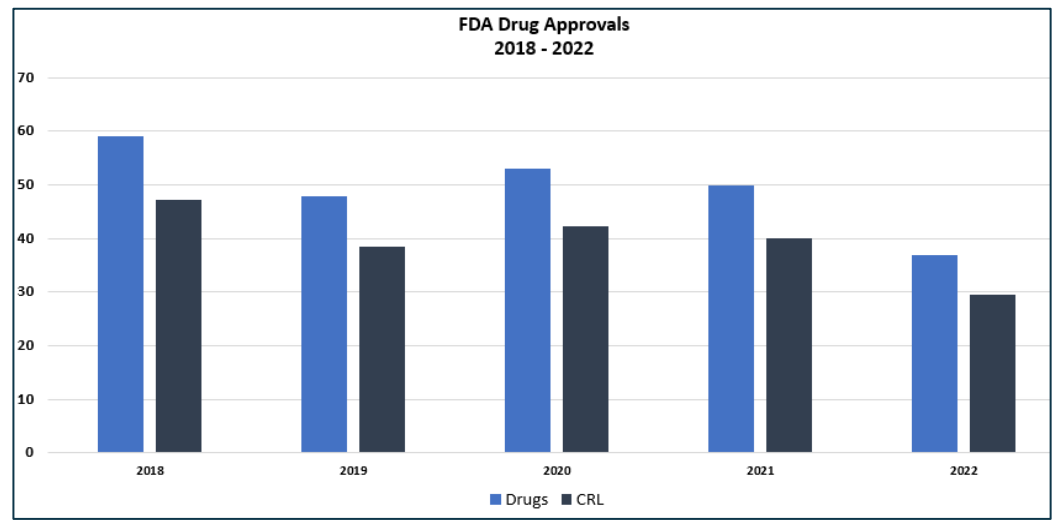
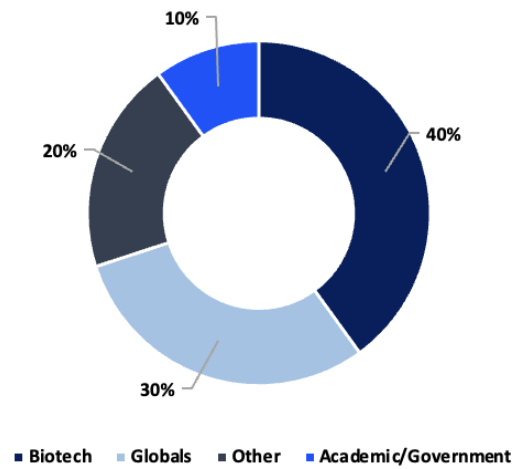
Stable and consistent leverage ratios and margins

- CRL management has been able to maintain constant margins and leverage ratios below those of competitors.

Thesis #1: Critical Supplier With a Diversified Client Base

CRL's involvement in the pre-clinical ecosystem and diversified client base enhances company profile

Revenue by Client Segment

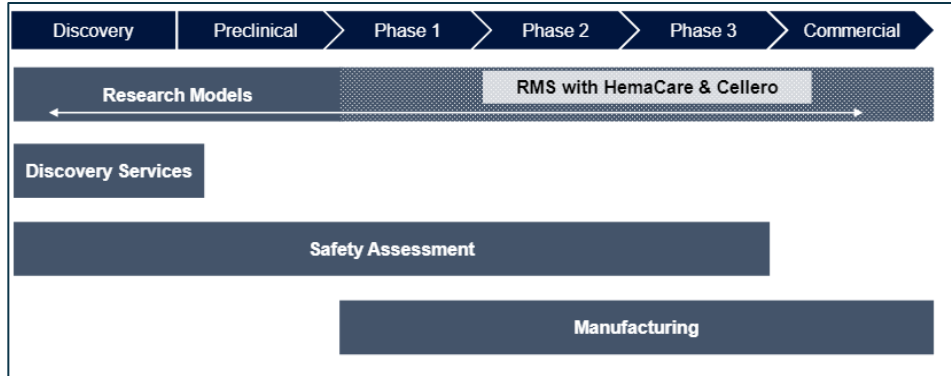


No single customer accounts for more than 3% of total revenue or more than 8% of segment revenue.

Top 25 clients account for ~30% of total revenue.

~70% of manufacturing revenue is recurring.

Involved in R&D of >80% of FDA-approved drugs from 2018-2022



Thesis #2: Well-Positioned to Capitalize on C> Market

CRL offers customers a quick, cost-efficient, and predictable path to commercial viability

	Market Size 2022	CAGR	Market Size 2031
Cell Therapy	\$4.5B	21.5%	\$25.7B
Gene Therapy	\$2.2B	18.0%	\$9.8B

\$12.6B
 in VC & PE funding for C> companies in FY 2022

~15%
 of Biopharma R&D pipelines are C> programs



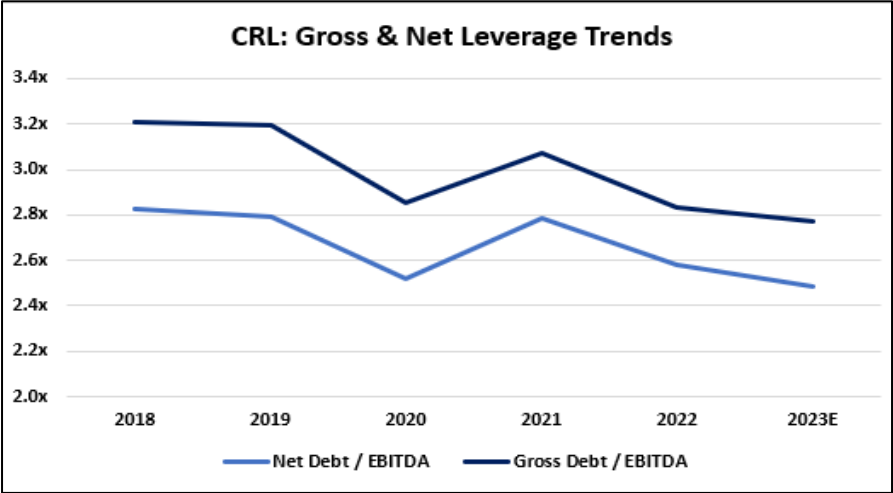
CRL allows customers to run **120 assays per minute**

"120 assays per minute. That's a lot of assays. [At NIH] **we aim to run one assay every 90 seconds** if everything is running smoothly."

-Safa S., C> Researcher at the National Institute of Health

Thesis #3: Stable Leverage & Margins

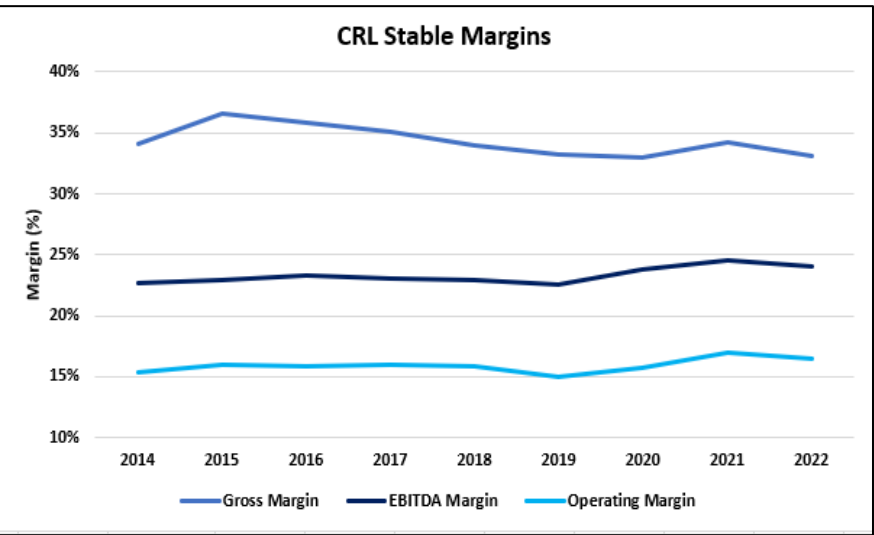
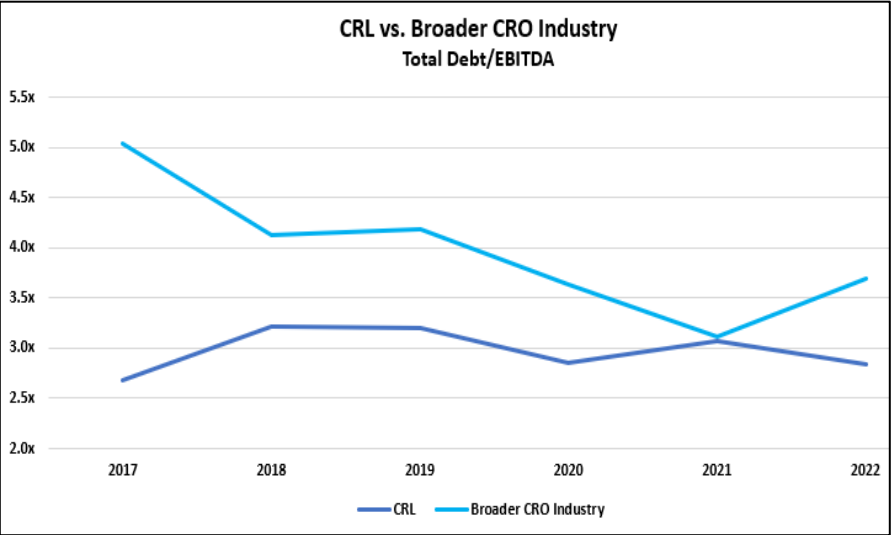
CRL has maintained consistent margins and leverage ratios



Stable Margins and Leverage Ratios

Margin stability is evidence of management's ability to **maintain revenue growth and responsibly manage costs.**

CRL's leverage ratio indicates a **responsible capital allocation strategy.**



	Historical					Projections		
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Total Debt/EBITDA		3.42	2.96	3.13	2.94	2.77	2.64	2.30
Net Debt/EBITDA		2.99	2.62	2.86	2.70	2.49	2.43	2.04

	Historical					Projections		
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenue	2,266.2	2,621.2	2,924.0	3,630.4	3,976.1	4,114.3	4,278.9	4,920.7
% Growth (YoY)		15.7%	11.6%	24.2%	9.5%	3.5%	4.0%	15.0%
EBITDA	504.0	562.0	685.0	893.0	963.5	1,042.0	1,093.0	1,257.0
Margin	22.2%	21.4%	23.4%	24.6%	24.2%	25.3%	25.5%	25.5%
% Growth (YoY)		11.5%	21.9%	30.4%	7.9%	8.1%	4.9%	15.0%
<u>Free Cash Flow</u>								
EBITDA	504.0	562.0	685.0	893.0	963.5	1,042.0	1,093.0	1,257.0
Remaining Free Cash Flow	224.7	328.0	287.4	545.8	175.2	336.2	474.6	566.7
Dividends	-	-	-	-	-	-	-	-
Acquisitions	(824.9)	(515.8)	(418.7)	(1,293.1)	(283.4)	(200.0)	(400.0)	(400.0)
Share Repurchases (Net)	(13.8)	(18.1)	(24.0)	(40.7)	(38.7)	(29.0)	(5.0)	(5.0)
Remaining Free Cash Flow	(614.0)	(205.9)	(155.3)	(788.0)	(146.9)	107.2	69.6	161.7
<u>Balance Sheet</u>								
Cash	195.4	238.0	228.42	241.21	233.91	301.1	237.3	329.3
Revolver Total (Contract)		676.1	814.8	1161.4	1197.6	953.7	993.7	1,033.7
Revolver Drawn		279.1	138.7	346.6	36.2	40.0	40.0	40.0
Revolver Availability		676.1	814.8	1,161.4	1,197.6	993.7	1,033.7	1,073.7
Total Liquidity		1,352.2	1,043.22	1,402.61	1,431.51	1,294.8	1,271.0	1,403.0
Long-Term Debt	1,636.6	1,849.7	1,929.6	2,663.6	2,707.5	2,488.1	2,488.1	2,488.1
Current Portion of Long-Term Debt	8.8	5.0	7.5	7.5	7.5	2.7	2.7	2.7
Leases	-	66.5	88.2	120.2	122.5	400.0	400.0	400.0
Total Debt	1,645.4	1,921.1	2,025.2	2,791.2	2,837.5	2,890.8	2,890.8	2,890.8

ONE YEAR TIME HORIZON

Current Bond Price \$ 85.91

Base Case	
Total Spread Compression	30 bps
Implied Bond Price	\$ 87.03
Annualized Total Return	7.0%

Assumptions

Consensus revenue and EBITDA estimates in 2023 and 2024

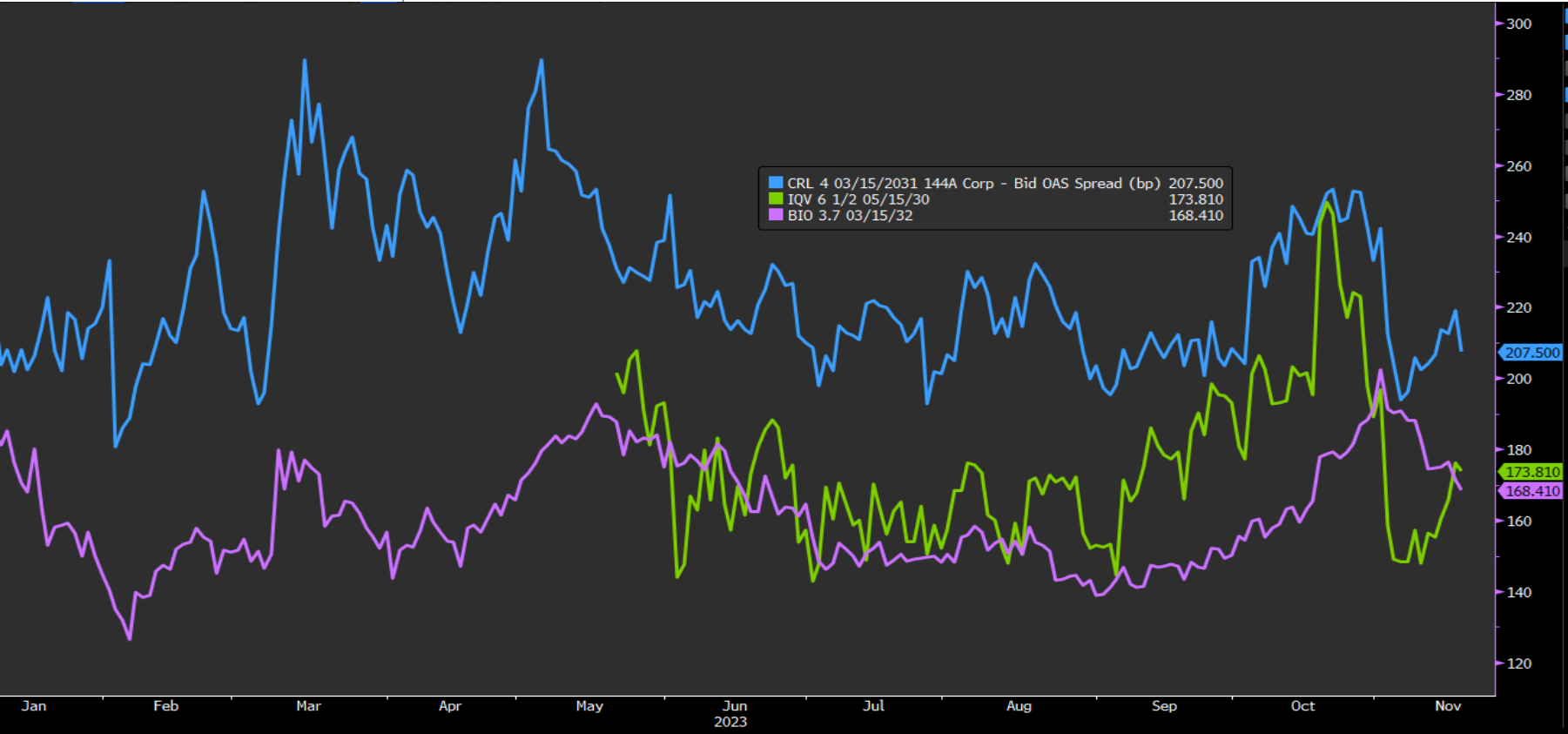
15% revenue growth in 2025, return to 10-year CAGR growth

25% EBITDA margin in 2024 and 2025

Capital Allocation:

- No dividend payouts
- Continued emphasis on acquisition-driven growth
- Insignificant share repurchases

Relative Value



Company	Security	Outstanding	S&P Rating	Moody's Rating	YTW	Bid OAS Spread	Net Leverage (LTM)	EBITDA / Interest	Spread / Leverage
CHARLES RIVER LABORATORI	CRL 4 03/15/31	500,000,000	BB	Ba2	6.73	207.5	2.8x	16.4x	73
IQVIA INC	IQV 6 1/2 05/15/30	500,000,000	BB	Ba2	6.64	173.8	3.9x	7.5x	44
BIO-RAD LABS	BIO 3.7 03/15/32	800,000,000	BBB	Baa2	6.42	168.4	1.6x	15.0x	103

1

MEDIUM

An economic downturn may adversely affect R&D budgets

- CRL is heavily dependent on companies outsourcing certain parts of the R&D processes, thus an economic downturn may reduce demand for their services.

2

MEDIUM

Increased government regulation

- CRL operates in a very highly regulated industry especially in its RMS segment; any large-scale changes in regulation may greatly impact the company's profitability.

3

LOW

Unexpected invocations of force majeure clauses

- Clients can end contracts on short notice if efficacy of drug becomes unlikely or if profitability becomes infeasible.



CRL 4 03/15/2031 Sr. Unsecured Bonds

Recommendation: BUY

Current Price: \$85.91

1-YR Target Price: \$87.03

Potential Return: 7.0%

ONE YEAR TIME HORIZON

Current Bond Price	\$ 85.91
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Base Case	
Total Spread Compression	30 bps
Implied Bond Price	\$ 87.03
Annualized Total Return	7.0%

Bull Case	
Total Spread Compression	50 bps
Implied Bond Price	\$ 88.11
Annualized Total Return	8.2%

Bear Case	
Total Spread Compression	-50 bps
Implied Bond Price	\$ 82.88
Annualized Total Return	2.2%



APPENDIX

Bear Case

	Historical					Projections		
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenue	2,266.2	2,621.2	2,924.0	3,630.4	3,976.1	4,114.3	3,702.9	3,490.0
% Growth (YoY)		15.7%	11.6%	24.2%	9.5%	3.5%	(10.0%)	(5.8%)
EBITDA	504.0	562.0	685.0	893.0	963.5	1,042.0	937.8	887.5
Margin	22.2%	21.4%	23.4%	24.6%	24.2%	25.3%	25.3%	25.4%
% Growth (YoY)		11.5%	21.9%	30.4%	7.9%	8.1%	(10.0%)	(5.4%)
<u>Free Cash Flow</u>								
EBITDA	504.0	562.0	685.0	893.0	963.5	1,042.0	937.8	887.5
CapEx	(140.5)	(140.5)	(166.6)	(228.8)	(324.7)	(319.7)	(243.8)	(230.7)
Interest Expense	(26.4)	(46.9)	(86.4)	(73.9)	(59.3)	(138.0)	(139.2)	(145.4)
Taxes	(82.6)	(50.0)	(81.8)	(81.9)	(130.4)	(123.9)	(131.3)	(124.2)
Change in Working Capital	(14.2)	3.4	(62.8)	37.4	(273.9)	(99.0)	(42.0)	(42.0)
Remaining Free Cash Flow	224.7	328.0	287.4	545.8	175.2	336.2	381.5	345.1
Dividends	-	-	-	-	-	-	-	-
Acquisitions	(824.9)	(515.8)	(418.7)	(1,293.1)	(283.4)	(200.0)	(400.0)	(400.0)
Share Repurchases (Net)	(13.8)	(18.1)	(24.0)	(40.7)	(38.7)	(29.0)	(5.0)	(5.0)
Remaining Free Cash Flow	(614.0)	(205.9)	(155.3)	(788.0)	(146.9)	107.2	(23.5)	(59.9)
<u>Balance Sheet</u>								
Cash	195.4	238.0	228.42	241.21	233.91	301.1	144.2	107.7
Long-Term Debt	1,636.6	1,849.7	1,929.6	2,663.6	2,707.5	2,488.1	2,488.1	2,488.1
Current Portion of Long-Term Debt	8.8	5.0	7.5	7.5	7.5	2.7	2.7	2.7
Leases	-	66.5	88.2	120.2	122.5	400.0	400.0	400.0
Total Debt	1,645.4	1,921.1	2,025.2	2,791.2	2,837.5	2,890.8	2,890.8	2,890.8
<u>Credit Statistics</u>								
Total Debt/EBITDA		3.42	2.96	3.13	2.94	2.77	3.08	3.26
Net Debt/EBITDA		2.99	2.62	2.86	2.70	2.49	2.93	3.14

Bear Case

Total Spread Compression	-50 bps
Implied Bond Price	\$ 82.88
Annualized Total Return	2.2%

Assumptions:

- Consensus revenue and EBITDA estimates in 2023
- Assumes 2008-2009 financial crisis

Bear Case

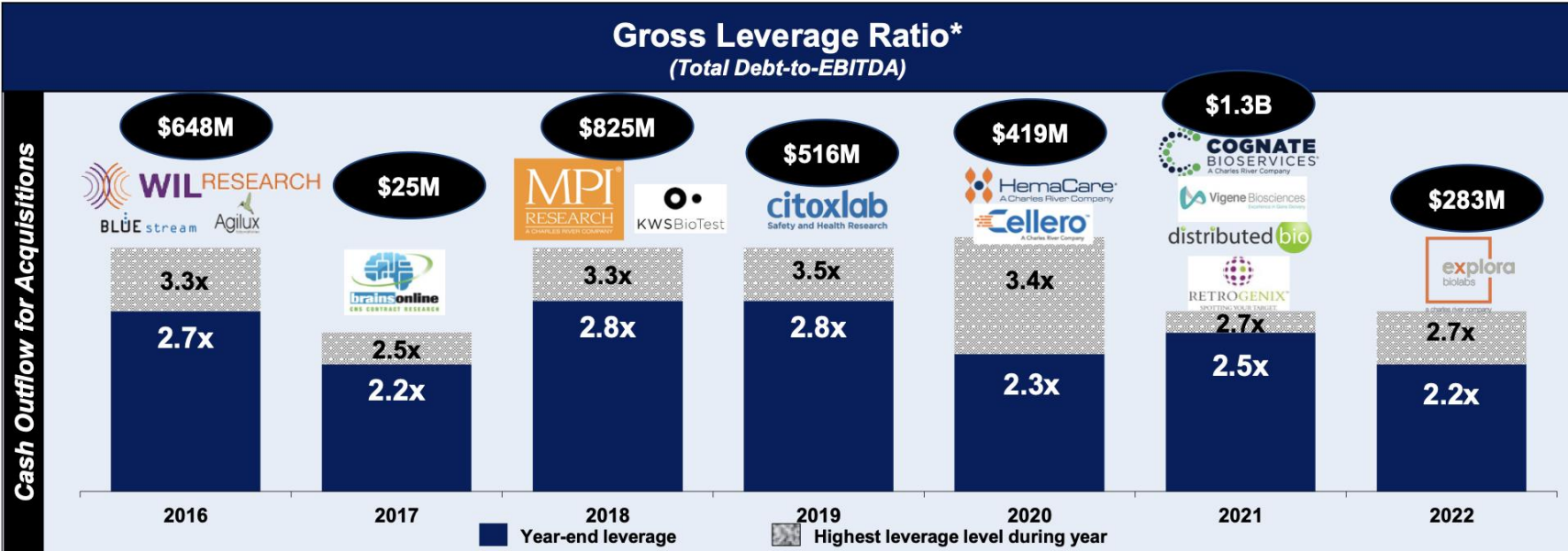
	Historical					Projections		
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenue	2,266.2	2,621.2	2,924.0	3,630.4	3,976.1	4,114.3	4,731.5	5,441.2
% Growth (YoY)		15.7%	11.6%	24.2%	9.5%	3.5%	15.0%	15.0%
EBITDA	504.0	562.0	685.0	893.0	963.5	1,042.0	1,093.0	1,383.7
Margin	22.2%	21.4%	23.4%	24.6%	24.2%	25.3%	23.1%	25.4%
% Growth (YoY)		11.5%	21.9%	30.4%	7.9%	8.1%	4.9%	26.6%
<u>Free Cash Flow</u>								
EBITDA	504.0	562.0	685.0	893.0	963.5	1,042.0	1,093.0	1,383.7
CapEx	(140.5)	(140.5)	(166.6)	(228.8)	(324.7)	(319.7)	(284.2)	(359.8)
Interest Expense	(26.4)	(46.9)	(86.4)	(73.9)	(59.3)	(138.0)	(139.2)	(145.4)
Taxes	(82.6)	(50.0)	(81.8)	(81.9)	(130.4)	(123.9)	(153.0)	(193.7)
Change in Working Capital	(14.2)	3.4	(62.8)	37.4	(273.9)	(99.0)	(42.0)	(42.0)
Remaining Free Cash Flow	224.7	328.0	287.4	545.8	175.2	336.2	474.6	642.8
Dividends	-	-	-	-	-	-	-	-
Acquisitions	(824.9)	(515.8)	(418.7)	(1,293.1)	(283.4)	(200.0)	(100.0)	(100.0)
Share Repurchases (Net)	(13.8)	(18.1)	(24.0)	(40.7)	(38.7)	(29.0)	(5.0)	(5.0)
Remaining Free Cash Flow	(614.0)	(205.9)	(155.3)	(788.0)	(146.9)	107.2	369.6	537.8
<u>Balance Sheet</u>								
Cash	195.4	238.0	228.42	241.21	233.91	301.1	537.3	705.4
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Leases	-	66.5	88.2	120.2	122.5	400.0	400.0	400.0
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<u>Credit Statistics</u>								
Total Debt/EBITDA		3.42	2.96	3.13	2.94	2.77	2.64	2.09
Net Debt/EBITDA		2.99	2.62	2.86	2.70	2.49	2.15	1.58

<u>Bull Case</u>	
Total Spread Compression	50 bps
Implied Bond Price	\$ 88.11
Annualized Total Return	8.2%

Assumptions:

- Consensus revenue and EBITDA estimates in 2023
- Assumes LT growth CAGR

Leverage Ratios & Acquisition Activity

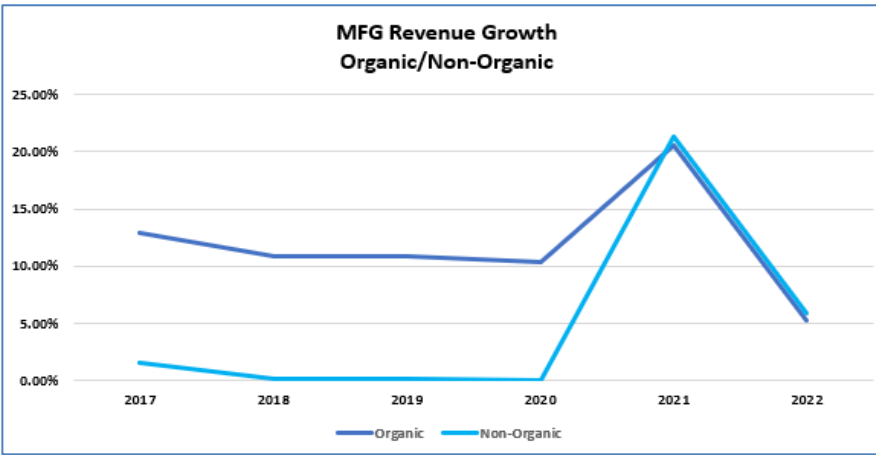
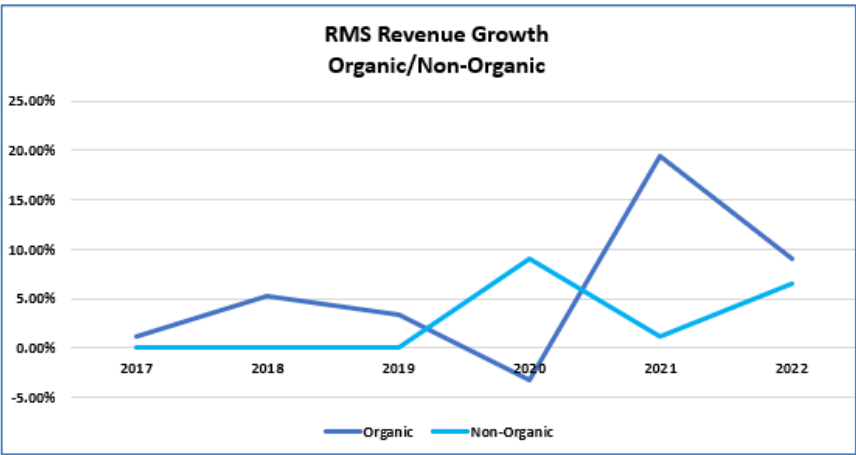
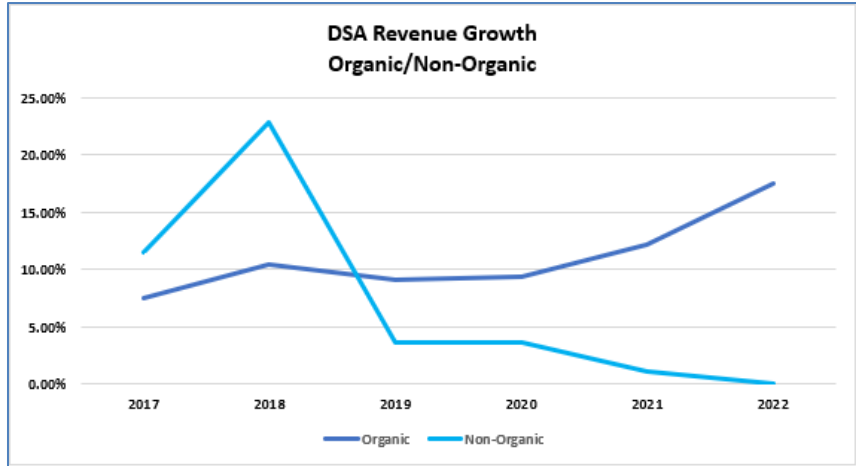
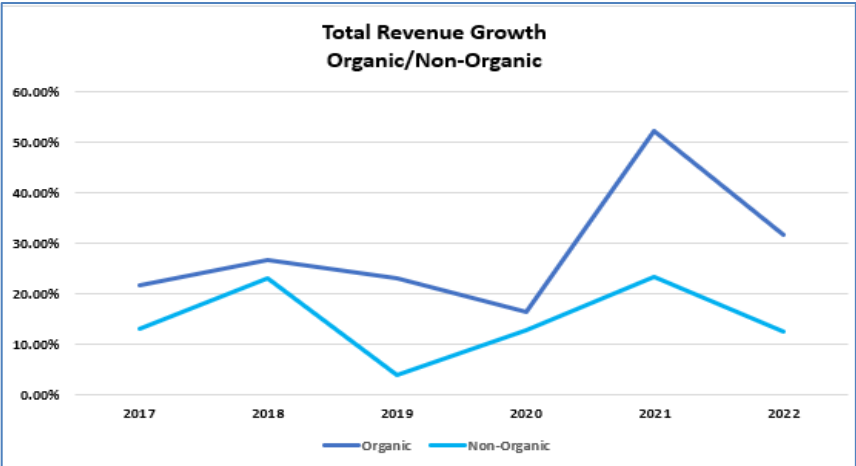


M&A Table

Date	Company	Price (\$mm)	Funding Source	Cash	Draw on Revolver	Annual Revenue (Pre-Acq) (\$mm)	Sales Multiple	Reporting Segment
1/30/2023	SAMDI Tech	\$50	Cash		\$50	0		DSA
4/6/2022	Explora Labs	\$295	Cash		\$6.6	\$285	\$38	7.8x RMS
10/12/2021	Vigene Biosciences	\$293	Cash		\$293	0		DSA
3/31/2021	Retrogenix Limited	\$48	Cash		\$9	\$40		DSA
3/29/2021	Cognate BioServices	\$875	Cash/Notes		\$875	0	\$140	6.3x DSA
12/31/2020	Distributed Bio	\$83	Cash		\$83	0	\$15	5.5x DSA
8/5/2020	Cellero	\$38	Cash		\$38	0		RMS
1/30/2020	HemaCare Corp	\$380	Cash		\$380	0	\$50	7.6x RMS
4/29/2019	Citoxlab	\$500	Cash		\$500	0	\$200	2.5x RMS

Organic/In-Organic Revenues

Stable organic revenue growth



Duration Analysis

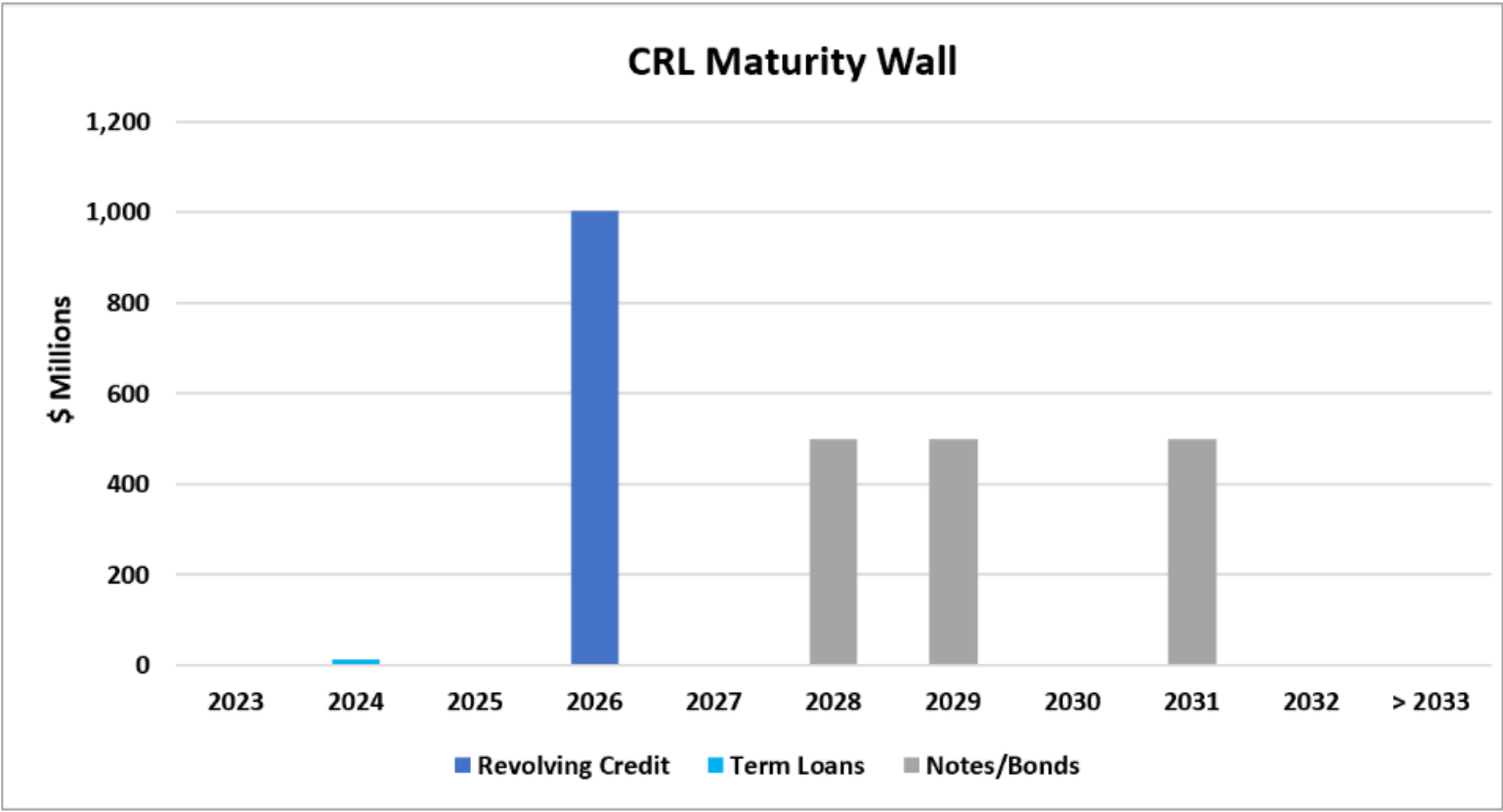
Security	B/S	Amt (M)	Date	Price	Yield W	Risk	Rate
CRL 4 03/15/31	B	1,000	11/17/23	85.910000	6.441170	5.27 Repo	5.350

Scenario Results											
Reinvestment Rate		0.000 %									
Horizon Date		Horizon		11/18/2024		Carry 18.1 bp		Rolldown 0.5 bp		Total 18.5 bp	
Scenario Name		Total Return %	HPR %	Horizon Px	Horizon Yld	Net P&L (USD)	B/E Yield	Mod Dur	Convexity		
Target Horizon Yields 10											
+20 bps		-0.105	-0.105	86.531	6.641	-911	6.622	5.367	0.340		
+10 bps		0.435	0.437	87.001	6.541	3,786	6.622	5.372	0.340		
0 bps		0.978	0.983	87.473	6.441	8,512	6.622	5.377	0.341		
-10 bps		1.522	1.532	87.949	6.341	13,268	6.622	5.382	0.341		
-20 bps		2.068	2.085	88.427	6.241	18,054	6.622	5.387	0.342		
Historical Yield											
Curve Shifts (I25) 3) Edit Benchmark Curves											
Implied Fwd Curve		1.743	1.755	88.142	6.301	15,199	6.622	5.384	0.342		

Bond Holders

Holder Name	Count	Source	Held Amount	Position	% Out	Filing Date
1. T Rowe Price Group Inc	3	ULT-AGG	101,230,000	101,230	3.37	09/30/23
2. All Debt (3)						
4. CRL 3 ¾ 03/15/29		ULT-AGG	47,375,000	47,375	9.48	09/30/23
5. CRL 4 03/15/31		ULT-AGG	36,274,000	36,274	7.25	09/30/23
6. CRL 4 ¼ 05/01/28		ULT-AGG	17,581,000	17,581	3.52	09/30/23
6. T Rowe Price Associates Inc	3	MF-AGG	101,230,000	101,230	3.37	09/30/23
7. All Debt (3)						
9. CRL 3 ¾ 03/15/29		MF-AGG	47,375,000	47,375	9.48	09/30/23
10. CRL 4 03/15/31		MF-AGG	36,274,000	36,274	7.25	09/30/23
11. CRL 4 ¼ 05/01/28		MF-AGG	17,581,000	17,581	3.52	09/30/23
11. T ROWE PRICE ASSOCIATES INC	3	MF-AGG	101,230,000	101,230	3.37	09/30/23
12. Capital Group Cos Inc/The	3	ULT-AGG	68,822,000	68,822	2.29	11/17/23
13. All Debt (3)						
15. CRL 4 ¼ 05/01/28		ULT-AGG	39,248,000	39,248	7.85	09/30/23
16. CRL 3 ¾ 03/15/29		ULT-AGG	27,234,000	27,234	5.45	11/17/23
17. CRL 4 03/15/31		ULT-AGG	2,340,000	2,340	0.47	09/30/23
17. Capital World Investors	2	MF-AGG	48,819,000	48,819	1.63	09/30/23
18. Capital Research and Management Co	3	MF-AGG	16,787,000	16,787	0.56	11/17/23
19. Capital International Inc	2	MF-AGG	3,216,000	3,216	0.11	09/30/23
20. FMR LLC	3	ULT-AGG	66,068,175	66,068	2.20	11/16/23
21. All Debt (3)						
23. CRL 4 03/15/31		ULT-AGG	28,103,029	28,103	5.62	09/30/23
24. CRL 3 ¾ 03/15/29		ULT-AGG	25,775,919	25,776	5.16	11/16/23
25. CRL 4 ¼ 05/01/28		ULT-AGG	12,189,226	12,189	2.44	11/16/23
25. Fidelity Management & Research Co	3	MF-AGG	65,391,175	65,391	2.18	11/16/23
26. Strategic Advisers Inc	2	MF-AGG	677,000	677	0.02	09/30/23
27. BlackRock Inc	3	ULT-AGG	64,556,000	64,556	2.15	11/17/23
28. All Debt (3)						
30. CRL 4 ¼ 05/01/28		ULT-AGG	28,393,000	28,393	5.68	11/17/23
31. CRL 4 03/15/31		ULT-AGG	19,622,000	19,622	3.92	11/17/23
32. CRL 3 ¾ 03/15/29		ULT-AGG	16,541,000	16,541	3.31	11/17/23

Loan/Debt/Revolver Maturity Walls

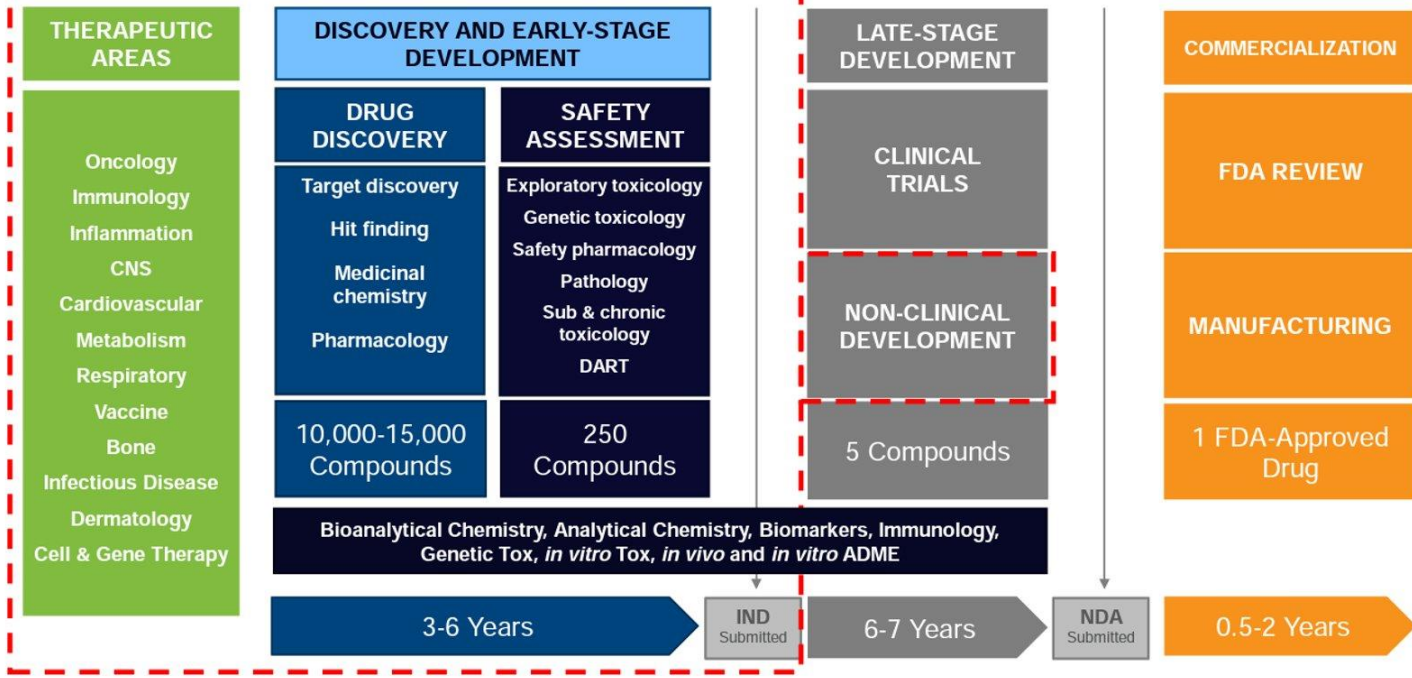


Indenture Provisions

Terms	Description
Note	4% Bonds
Issuer	CHARLES RIVER LABORATORIES
Notional Amount	\$500,000,000
Issue Date	03/15/2021
Maturity	03/15/2031
Covenants	<ol style="list-style-type: none">1. Change of control2. Merger Restrictions
Events of Default	<ol style="list-style-type: none">1. Failure to make principal or interest payments within 30 days2. Deposit of sinking fund payment3. Default due to performance and bankruptcy

Discovery & Safety Assessment Process

DSA's Non-Clinical Focus in the Drug Development Process



Pre-Clinical Eco-System

Research Models and Services (RMS)

Global leader in the production of the most widely used small research models and associated services

Foundational tools that enable clients to discover new molecules

Discovery and Safety Assessment (DSA)

Largest, global partner for outsourced drug discovery, non-clinical development, and regulated safety testing services

Enabling preclinical success and efficiently advancing ideas into the clinic

Manufacturing Solutions

Full-service process development, clinical-to-commercial manufacturing, and quality-control testing products and services

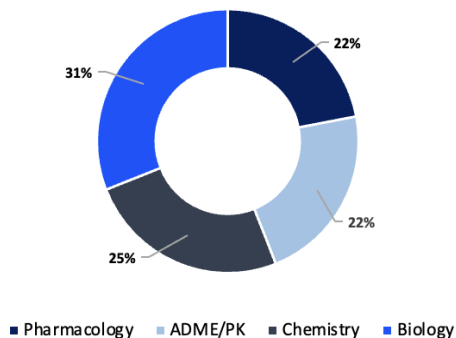
Ensuring the quality and safety of manufacturing activities and commercial therapies



Research & Development Continuum

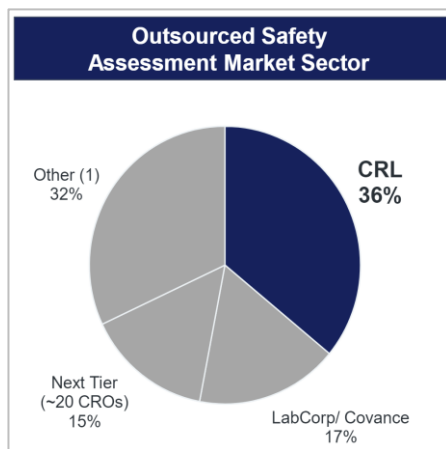
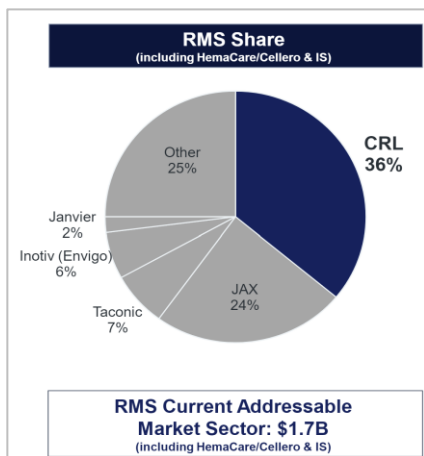
CRL was involved in 80% of the drugs approved by FDA from 2020-2022

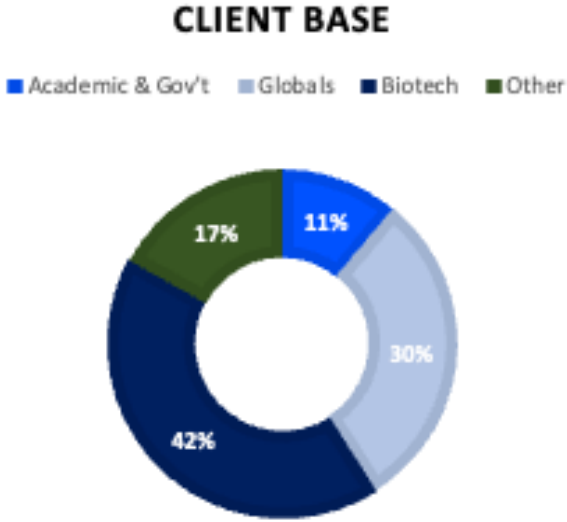
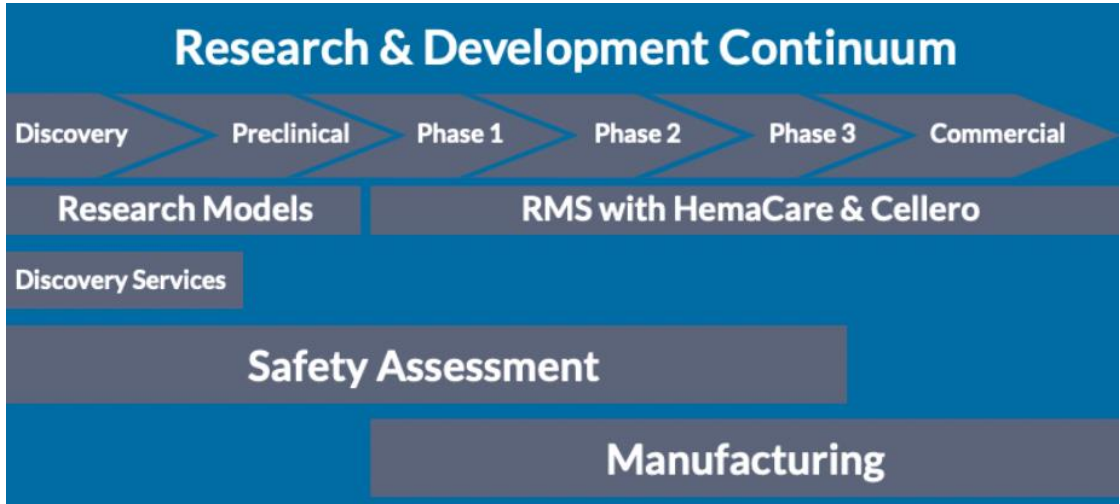
Discovery Market Sector by Service Area



Resilient revenue growth

- CRL is involved in every phase of the drug discovery and development process leading to organic growth
- 60% of business comes from DSA, where CRL contracts last between 3-7 years
- Long contracts and footprint in all stages of development have led to resilient revenues





- **Research Model Services (RMS):**
 - Provides non-human research models (animals) for pre-clinical testing
- **Discovery & Safety Assessment (DSA):**
 - Enables client base to outsource drug discovery and development activities
- **Manufacturing (MFG):**
 - Provides resources to support the manufacturing and production of drugs and therapies