

# Credit Comparison: LabCorp (BBB+, stable) vs. Quest (BBB+, stable)

## Top-tier labs sport same pillar ranks and face similar credit risks.

**Morningstar Credit Ratings, LLC**  
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Julie Utterback, CFA  
Vice President, Healthcare  
+1 312 696-6278  
julie.utterback@morningstar.com

### Executive Summary

LabCorp and Quest enjoy enviable positions at the top of the highly fragmented U.S. diagnostic testing market. Similarly sized, we believe they enjoy similar scale-related advantages in that market that give them both narrow moats, according to Morningstar's Equity Research Group. LabCorp and Quest operate with slightly different concentration risks and leverage targets, but those factors largely offset in our methodology. Specifically, LabCorp's contract research services that were acquired through Covance and Chiltern make it slightly larger and more diverse than Quest. However, Quest manages its balance sheet in a more conservative fashion. Those offsetting factors contribute to very similar credit risks at each firm, and although we see event risk potential on the horizon, we view both firms' credit trajectories as stable.

### Key Takeaways

- ▶ Top-tier diagnostic labs, LabCorp and Quest lead the commercial segment, competing nationally within the highly fragmented U.S. clinical testing market and enjoying similar scale advantages.
- ▶ Reimbursement pressures associated with the Protecting Access to Medicare Act (PAMA) create some event risk related to potential acquisition activities by LabCorp and Quest to expand their respective scale advantages and potentially offset this exposure. However, we see other growth opportunities, such as consumer outreach initiatives, and other signs of health, such as insurer focus on convenience rather than price in recent network decisions, that should mitigate some of that reimbursement-related risk in the industry.
- ▶ Despite slightly different concentration risks and leverage targets, both firms score identically in our credit rating pillars. They each enjoy moderate Business Risk, moderate Cash Flow Cushion, moderate Solvency Score, and strong Distance to Default pillars.

### Companies Mentioned

Name (Ticker)	Rating	Outlook	Coupon	Maturity	Price	Yield	Spread
Laboratory Corp of America Holdings	BBB+	Stable	3.60%	09/09/2027	94.82	4.31%	+117
Quest Diagnostics Inc	BBB+	Stable	3.45%	06/01/2026	94.02	4.38%	+126

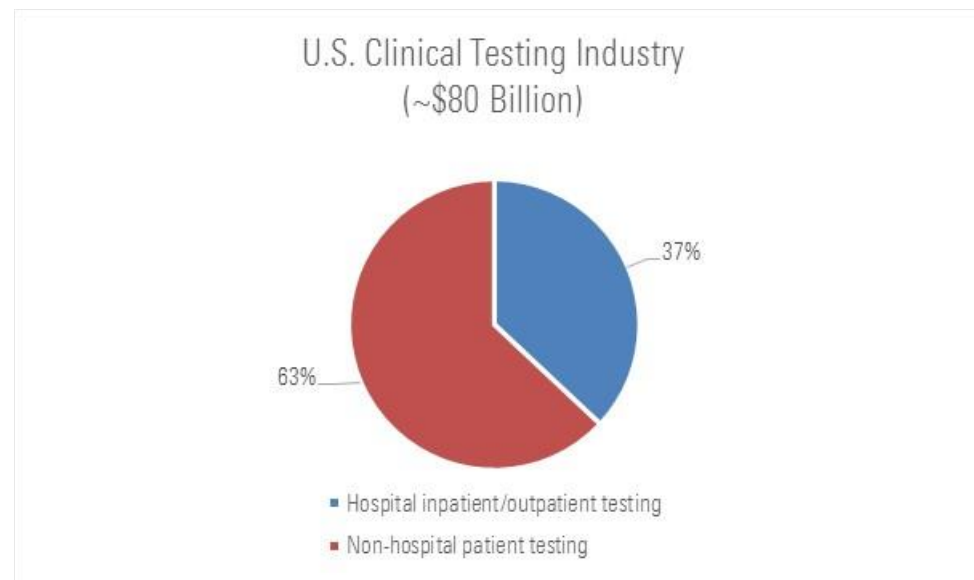
Source: Interactive Data, as of Oct. 15, 2018

## U.S. Diagnostic Laboratory Industry Overview and Trends

### Commercial Market Led by Quest and LabCorp in Highly Fragmented Industry

According to LabCorp estimates, the U.S. clinical testing market generates about \$80 billion in revenue annually. Quest estimates that 37% of the industry is generated from hospital patients (inpatient and outpatient), which we view as unlikely to be outsourced to commercial labs, while 63% is generated from non-hospital patients. Using this broad lens, Quest (\$7.4 billion in 2017 diagnostic testing revenue) and LabCorp (\$7.2 billion in 2017 diagnostic testing revenue) account for about 18% of the total industry on a cumulative basis.

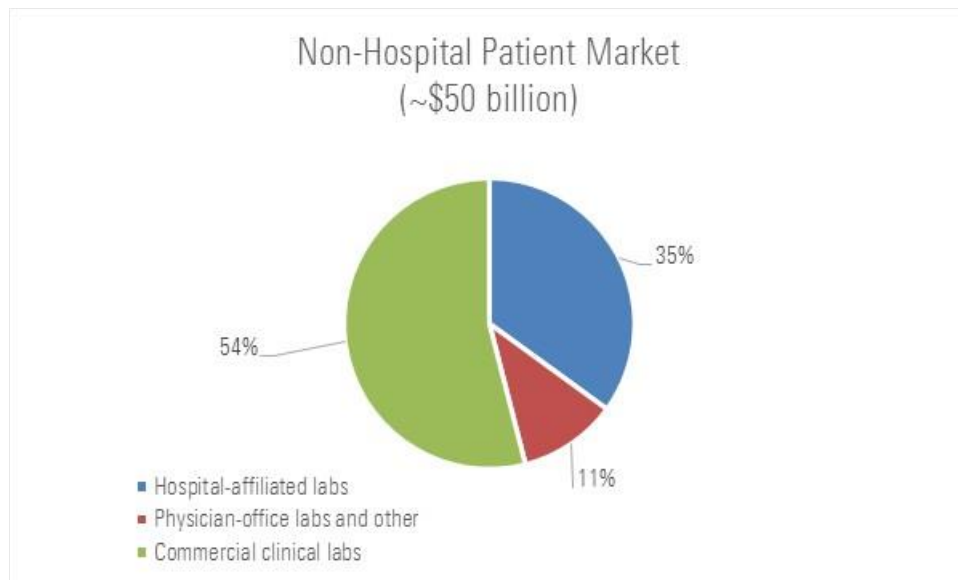
#### Exhibit 1 Hospital vs. Non-Hospital Patient Testing



Source: Company Filings

Within the non-hospital patient setting, nationally focused Quest and LabCorp compete with local- and regional-based hospital-affiliated labs (35% of the market), physician office-affiliated labs (11%), and other commercial entities (54%). Cumulatively, Quest and LabCorp account for about 28% of laboratory testing in the non-hospital patient setting by our estimates.

**Exhibit 2** Non-Hospital Market Breakdown



Source: Company filings

When broken down even further, Quest and LabCorp cumulatively account for about 54% of the estimated \$27 billion commercial market. Similarly sized, Quest and LabCorp are by far the largest independent labs in the U.S. and operate with enormous scale advantages versus their much smaller peers. Scale remains the key source of the narrow economic moats that are assigned to Quest and LabCorp by Morningstar's Equity Research Group, and we suspect Quest and LabCorp will remain the leading players in this healthcare sector for the foreseeable future.

**Exhibit 3** Market Share

Segment Revenue:	2017 Revenue (mms)	% of Total
Quest Diagnostics	\$7,370	27%
LabCorp	\$7,171	27%
Sonic Healthcare U.S.	\$1,106	4%
Opko Health Inc (BioReference Labs)	\$889	3%
Myriad Genetics	\$731	3%
Genomic Health	\$341	1%
Other	\$9,393	35%
<b>Commercial Clinical Labs</b>	<b>\$27,000</b>	<b>100%</b>

Source: Company filings

### **PAMA Creates Some Event Risk for Quest and LabCorp**

In 2014, Congress passed the Protecting Access to Medicare Act (PAMA) to change the methodology for establishing Centers for Medicare and Medicaid Services (CMS) reimbursement rates for diagnostic tests and, hopefully, keep them in line with private payers. However, because smaller labs and hospitals were largely exempt from the data collection process, CMS relied heavily on pricing information from independent labs, which tend to be lower cost than smaller operators, to make reimbursement decisions. Exhibit 4 shows the sources of the CMS data, which are skewed toward independent labs like Quest and LabCorp, relative to the broader market landscape outlined above. Notably, after this data was released in late 2017, Quest highlighted that 40% of the data collected by CMS was from its labs, despite only accounting for 15% of payments made under CMS's clinical lab fee schedule, which shows the disconnect between the data collected and the market.

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#### **Exhibit 4** PAMA Data Collection Sources

	Reported Test Volume	% of Total
Independent Labs	223,586,265	90%
Physician Office	18,689,597	8%
Hospital Labs	2,311,564	1%
Other	3,393,579	1%
<b>Total</b>	<b>247,981,005</b>	<b>100%</b>

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Source: Centers for Medicare & Medicaid Services (CMS)

Exemption from the data collection requirements initially provided relief to smaller labs and hospitals. However, this process resulted in CMS depending on larger lab pricing, which can be much lower than other labs because of scale advantages, to determine CMS reimbursement rates. For example, LabCorp has highlighted that its test prices typically range from 1.5 times to 5 times lower than test prices at physician offices and hospital labs.

Because of this data collection disconnect, CMS reimbursement cuts that were implemented on January 1, 2018, depended almost entirely on prices from the most efficient laboratories in the industry. This dynamic has placed significant pricing pressure on labs with relatively low testing volume, such as in rural areas, and labs that skew toward the elderly population, like those servicing nursing homes. With reimbursement cuts set to accelerate in future years, we expect mounting pressure on labs, especially low-scale operators. That could lead to further consolidation in the industry through organic (such as lab closures and reduced testing menus) or inorganic (acquisitions) means.

Even Quest and LabCorp are feeling the strain of this new pricing dynamic, despite their relatively low dependence on CMS's clinical lab fee schedules (represents around 12% of diagnostic testing revenue at each firm). Specifically, through 2020, both companies' top lines could be constrained by roughly 1% annually. Beyond that, headwinds could rise even further as clinical fee schedule cuts on tests could increase from about 10% possible through 2020 to 15% potentially each year from 2021-23, which can be seen in Exhibit 5.

**Exhibit 5** Potential PAMA Effects

	Potential Price Cut/Test	Potential Headwind	
		Quest	LabCorp
2018	10%	0.5%	0.7%
2019	10%	1.2%	0.8%
2020	10%	1.2%	0.8%
2021	15%	1.8%	1.3%
2022	15%	1.8%	1.3%
2023	15%	1.8%	1.3%

Source: CMS, Company Reports, and Morningstar Credit Rating, LLC estimates

Quest and LabCorp should be able to manage through these potential cuts by increasing their efficiencies and by capitalizing on new growth opportunities, in our opinion. However, we think many smaller labs, especially those with relatively low volumes or that skew toward the elderly population, may have trouble operating in this difficult reimbursement environment. Some of those labs may aim to sell out to larger companies, such as Quest and LabCorp. Given this dynamic, we see elevated event risk for Quest and LabCorp if their roll-up strategies accelerate in the near future to further consolidate the industry during this tough period. Typically, these tuck-in acquisitions can be managed with Quest and LabCorp's respective free cash flow, but if the acquirers need to take on substantial leverage to manage a large bolus of acquisitions in a short period, the financial health of the acquirers could weaken.

**Labs Increase Focus on the Consumer**

In 2013, Theranos and Walgreens partnered to bring point-of-care diagnostics to the retail setting. That partnership ultimately did not work because the Theranos technology, which was originally heralded as able to run many diagnostic tests with just a drop of blood from a finger prick, was an illusion. However, the strategy of using retailers' extensive physical networks as venues for consumers to obtain diagnostic testing remains compelling, and both Quest and LabCorp have entered the fray with several of their own retail relationships along with other initiatives to reach consumers.

Quest is taking a multi-prong approach to reach consumers. In terms of retailers, the firm has relationships with Safeway and Walmart with varying degrees of integration ranging from an agreement to basically rent the retailer's space for draw centers to a joint venture arrangement with Walmart to provide extended services. Quest also provides services to Ancestry.com, and it has developed technology portals to help consumers more easily interact with the company, such as MyQuest and QuestDirect.

Like Quest, LabCorp has partnered with various organizations, such as Walgreens and 23andMe, to reach more consumers. Most recently, LabCorp and Walgreens announced in early October that a 17-store pilot program has turned into a commitment to establish LabCorp service centers in at least 600 Walgreens stores within the next four years, which is a positive endorsement of the venture and big increase in potential LabCorp touch points for consumers. LabCorp currently operates about 2,000 patient service centers in the U.S., so this relationship with Walgreens could significantly expand its reach with consumers. In terms of technology, LabCorp has enhanced communication options for

consumers through mobile and other devices, as well. LabCorp is also working on diagnostic technology to allow at-home patients to send in a finger prick of blood for shipment and testing at a LabCorp facility. This new diagnostic technology potentially could be commercialized in the next year or so.

Overall, we view this consumer outreach as not just another growth opportunity for diagnostic labs but as a potential barrier to entry for the diagnostic testing industry. One could argue that future diagnostic startups would be more likely to partner with established firms, such as LabCorp and Quest that have an extensive infrastructure to directly reach consumers, than build that infrastructure themselves.

### **Co-Exclusive Insurance Deals Suggest Insurers Are Seeking More Convenience for Consumers**

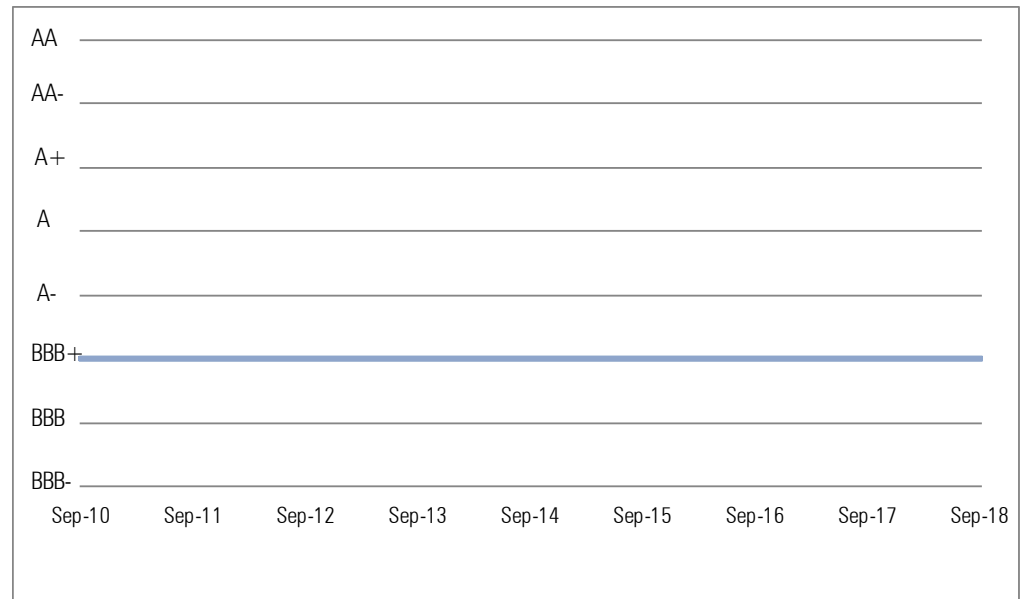
In 2018, both Aetna and UnitedHealth Group announced plans to open up their provider networks to both Quest (currently with Aetna) and LabCorp (currently with UnitedHealth) as national preferred laboratory service providers. Starting in 2019, Quest will gain access to UnitedHealth's more than 48 million members while losing exclusivity with Aetna's more than 22 million members and vice versa for LabCorp as preferred national providers. Overall, Quest will likely be the net winner in this arrangement given the increased access to UnitedHealth's larger pool of covered lives than Aetna. Generally, though, we view these changes as positive for the diagnostic testing industry, as focus shifts toward patient convenience from cost control for insurance stakeholders. Also relative to their smaller, regional peers, market share in affected geographies may shift toward the typically lower-priced Quest and LabCorp, as these relationships open to those players.

**LabCorp and Quest Maintain Similar Credit Profiles**

**Credit Rating Histories**

Both firms have been rated BBB+ since we initiated coverage on them in September 2010.

**Exhibit 6** LabCorp and Quest's Credit Rating Histories



Source: Morningstar Credit Ratings, LLC

**Pillar Analysis**

LabCorp and Quest score identically in our credit rating pillars, which supports our BBB+ ratings for both companies.

**Exhibit 7** Diagnostic Lab Pillar Scores

**Current Ratings: BBB+**

Rating Pillars

- Business Risk
- Cash Flow Cushion
- Solvency Score
- Distance to Default

	Strongest ← → Weakest									
	1	2	3	4	5	6	7	8	9	10
Business Risk										
Cash Flow Cushion										
Solvency Score										
Distance to Default										

Source: Morningstar Credit Ratings, LLC

- ▶ **Business Risk (5):** LabCorp and Quest score almost identically in our Business Risk pillar with both receiving a moderate (5) ranking. One of the differences in the pillars are that LabCorp operates a more diverse entity than Quest primarily due to the former's recent entry into contract research services, or the management of clinical testing and trials primarily for biopharmaceutical firms. Therefore, LabCorp scores better on the concentration risk component of this pillar than Quest. However, we also give

LabCorp a slightly weaker score for management's actions to support credit quality based on its typically higher leverage than Quest and recent delay in deleveraging after the Covance (2015) acquisition and subsequent Chiltern (2017) acquisition. Those two components (concentration risks and management score) generally offset in our methodology, and we view LabCorp and Quest as both operating with moderate Business Risks.

#### Exhibit 8 Business Risk Pillar Comparison

Business Risk Details	LabCorp	Quest	Notes
Size	8	8	Very Small=1, Very Large=10
Economic Moat	5	5	None=1, Narrow=5, Wide=10
Uncertainty	7.5	7.5	Extreme=1, Very High=2.5, High=5, Medium=7.5, Low=10
Concentration Risks	3	2	Highly Concentrated=1, Highly Diversified=5
Management Score	2	3	Aggressive=1, Conservative=5
Dependence on Capital Markets	3	3	Extremely Dependent=1; Very Low Dependence=5
Cyclical	4	4	Highly cyclical=1; Non-Cyclical=5
Business Risk Pillar	5	5	Minimal=1, Very High=10

Source: Morningstar Credit Ratings, LLC

- Size (both=large): LabCorp and Quest both generate annual revenue between \$7 billion and \$13 billion, which corresponds to an 8 ranking, or in the large category of our size scale.



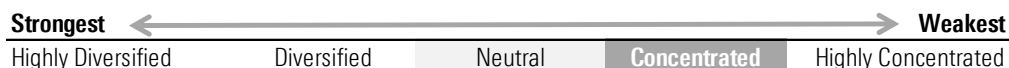
- Economic moat (both=narrow): According to Morningstar's Equity Research Group, both firms operate with narrow economic moats related primarily to scale advantages associated with their top-tier positions in the independent reference lab market. Compared with hospital-based labs and smaller regional players, LabCorp and Quest typically enjoy significant cost advantages thanks to their large test volumes and operating efficiencies. Additionally, the firms' nationwide footprints with extensive networks of patient service centers and in-physician office services would be difficult to replicate. Advantageous cost structures and national coverage are appealing to third-party payers, too. Finally, LabCorp's and Quest's scale and reach make them attractive partners for the researchers who invent various diagnostic tests but have limited distribution channels through which to sell those tests. Notably, LabCorp also operates an attractive contract research organization, which it entered through the acquisition of Covance. Prior to that acquisition, Covance earned a narrow moat from Morningstar's Equity Research Group, so that business supported, rather than diluted, the narrow moat of LabCorp.



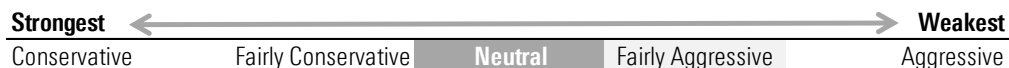




of the novel drugs approved by the Food and Drug Administration in 2017 and helped develop all of the top-50 drugs on the market through its contract research services.



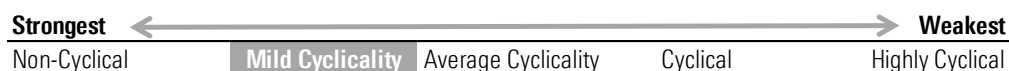
- ▶ Management (LabCorp=fairly aggressive; Quest=neutral): LabCorp scores weaker than Quest on its management for creditors component, which is related to recent differences in their leverage and LabCorp's previous delays in hitting a leverage goal after the Covance acquisition. In early 2015, LabCorp acquired Covance, inflating the combined entity's gross debt/EBITDA by about 1.5 turns to just over 4 times directly after the transaction. After the Chiltern acquisition in mid-2017, the company owed \$7.2 billion in debt in September 2017, or pro forma gross leverage in the mid-3s. Since then, the firm has repaid some debt, owing \$6.5 billion as of June 2018, or gross leverage around 3 times. This level may be disappointing for creditors who were originally presented with a plan to return to 2.5 times gross debt/EBITDA by the end of 2016 when the Covance transaction was announced. For comparison, Quest's most recent leverage-increasing acquisition activities (Solsta Lab Partners and Summit Health in 2014) only pushed up leverage to around 3 times, and after a post-acquisition deleveraging period, it generally has operated with gross leverage in the mid-2s since then.



- ▶ Dependence on capital markets (both=dependent): After reaching their respective leverage targets, refinancing may be attractive to both companies, depending on their capital-allocation priorities as debt comes due.



- ▶ Cyclicalities (both=mild cyclicalities): While patient volume can weaken as a result of economic activity, LabCorp and Quest generate relatively consistent sales throughout economic cycles compared with other firms in our coverage universe. Also, their respective contract research services depend on clinical trial programs of biopharmaceutical firms, which generally are resistant to swings in the economic cycle. And while LabCorp's results would be more directly sensitive to clinical trial cancellations or client relationship losses in that business, we view the cyclicalities of both LabCorp and Quest as mild.



- ▶ Cash Flow Cushion (Moderate): The Cash Flow Cushion attempts to project how many times a firm's cash reserves and future cash flows will cover its debt-like obligations during the next five years. Both firms score similarly in this pillar. However, in their raw scores, Quest scores slightly worse primarily

because of its ongoing dividend payments, which we view as a relatively sticky outflow that most firms would be unlikely to cut. Therefore, that cash is unlikely to be available to service future obligations. Since LabCorp does not pay a dividend, it scores a bit better than Quest in the raw Cash Flow Cushion. However, both raw scores correspond to a moderate 6 rank in this forward-looking pillar.

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**Exhibit 10** Key Cash Flow Cushion Components

\$s mms	LabCorp	% of Cash + Cash Flow	Quest	% of Cash + Cash Flow
Starting Cash (end of 2017)	\$317	4%	\$137	2%
Adjusted Free Cash Flow (5 Years)*	\$8,507	96%	\$5,996	98%
Cash + Cash Flow	\$8,824	100%	\$6,133	100%
Debt Maturities (5 Years)	\$3,021	34%	\$1,650	27%
Interest Expense (5 Years)	\$1,271	14%	\$745	12%
Leases (5-Years)	\$1,058	12%	\$919	15%
Dividends (5 Years)	\$0	0%	\$1,391	23%
Repurchases (1 Year)	\$300	3%	\$100	2%
Debt-Like Obligations (5 Years)	\$5,650	64%	\$4,805	78%
Cash Flow Cushion	1.6x		1.3x	
Ranking	6		6	

Source: Morningstar Credit Ratings, LLC Estimates

\*Adjusted free cash flow adds back certain tax-adjusted obligations, such as interest and rental expense, to projected free cash flow.

- **Solvency Score (Moderate):** Despite LabCorp operating with leverage around half a turn higher than Quest, LabCorp scores slightly better than Quest on the liquidity, profitability, and coverage metrics that determine our Solvency Score. Overall though, these firms score almost identically in this pillar, and their Solvency Scores both enjoy moderate 5 rankings.

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**Exhibit 11** Solvency Score

	LabCorp	Quest
Lease-Adjusted TL/TA	0.62	0.60
Quick Ratio	1.20	1.15
ROIC, including goodwill	10.3%	9.5%
EBITDAR/(Int Exp + 1/3 Rents)	7.90	7.80
Raw Solvency Score (Lower = Better)	477.46	481.50
Ranking	5	5

Source: Morningstar Credit Ratings, LLC

- **Distance to Default (Strong):** Large, steady equity cushions underneath their debt obligations contribute to strong Distance to Default scores (3) at both companies. See Exhibits 12 and 13 for more details.

### Capital Structure and Allocation Policies

LabCorp's leverage remains slightly above target following the 2015 acquisition of Covance and 2017 acquisition of Chiltern. At the end of June 2018, LabCorp owed \$6.5 billion in debt, or pro forma gross leverage around 3 times by our estimates. This gross debt consists primarily of senior unsecured notes (\$5.9 billion) and unsecured term loan borrowings (\$0.5 billion). Management aims to operate with leverage of 2.5 to 3.0 times on a sustainable basis, which is possible to achieve by the end of 2018 by our estimates. As of June 2018, LabCorp held \$0.2 billion of cash on its balance sheet and had about \$1.0 billion of availability remaining on its revolving credit facility, which matures in 2022. Given that liquidity along with the company's ability to grow free cash flow moderately from the \$1.1 billion it generated in the 12 months ended in June, we view the company's maturity schedule as easily manageable. Key maturities during the next five years include \$0.4 billion due in November 2018, \$1.1 billion due in 2020, and \$1.5 billion in 2022.

#### Exhibit 12 LabCorp Capital Structure

	Debt as of June 30, 2018	x EBITDA
<b>LabCorp</b>		
Zero Coupon Convertibles	\$9	
2.50% notes due Nov. 2018	\$400	
2.63% notes due 2020	\$500	
4.63% notes due 2020	\$594	
3.20% notes due 2022	\$500	
3.75% notes due 2022	\$500	
Term loan due 2022	\$527	
4.00% notes due 2023	\$300	
3.25% notes due 2024	\$600	
3.60% notes due 2025	\$1,000	
3.60% notes due 2027	\$600	
4.70% notes due 2045	\$900	
Other	\$27	
<b>Total Debt</b>	<b>\$6,457</b>	<b>3.0x</b>
Cash and Investments	\$221	0.1x
<b>Net Debt</b>	<b>\$6,236</b>	<b>2.9x</b>
Market Capitalization (October 15, 2018)	\$17,310	8.1x
Enterprise Value	\$23,546	11.1x
<b>EBITDA (TTM as of June 2018)</b>	<b>\$2,124</b>	

Source: Company Reports and Morningstar Credit Ratings, LLC

Quest's total debt stood at \$3.7 billion as of June, or 2.4 times adjusted EBITDA by our estimates. Major debt maturities within the next five years consisted of \$300 million due April 2019, \$800 million due 2020, and \$550 million due 2021. Despite that easily manageable maturity schedule, we would not be surprised to see deleveraging take a back seat to shareholder returns and acquisitions in the future. For example, Quest pushed out about half of its free cash flow during the year ended in June (\$892 million) to shareholders, including \$252 million in dividends and \$215 million in share repurchases. We expect Quest to continue growing the dividend similarly to earnings growth going forward, and the firm had \$867 million of share repurchases still authorized by the board at the end of June with no expiration

date. In the past, management has said that it doesn't plan to increase leverage to make repurchases. However, we also expect Quest to continue rolling up laboratory competitors through tuck-in acquisitions. Depending on the size of these potential transactions, external financing may be used.

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**Exhibit 13** Quest Capital Structure

	Debt as of June 30, 2018	x EBITDA
<b>Quest Diagnostics</b>		
2.70% notes due 2019	\$300	
4.75% notes due 2020	\$500	
2.50% notes due 2020	\$300	
4.70% notes due 2021	\$550	
4.25% notes due 2024	\$300	
3.50% notes due 2025	\$600	
3.45% notes due 2026	\$500	
6.95% notes due 2037	\$176	
5.75% notes due 2040	\$249	
4.70 notes due 2045	\$300	
Other	-\$62	
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Total Debt	\$3,713	2.4x
Cash and Investments	\$132	0.1x
Net Debt	\$3,581	2.3x
Market Capitalization (October 15, 2018)	\$13,700	8.8x
Enterprise Value	\$17,281	11.1x
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EBITDA (TTM as of June 2018)	\$1,558	

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Source: Company Reports and Morningstar Credit Ratings, LLC

## Peer Comparison

### Exhibit 14 Trailing 12-Month Data

	<b>LabCorp</b>	<b>Quest</b>
Morningstar LLC Rating	BBB+	BBB+
Outlook	Stable	Stable
Information from Morningstar's Equity Research Group:		
Economic Moat	Narrow	Narrow
Moat Trend	Positive	Stable
Uncertainty	Medium	Medium
Pro Forma Credit Metrics (\$s in millions)		
TTM as of Date (\$s in millions)	6/30/2018	6/30/2018
Revenues	\$11,166	\$7,670
Adj'd EBITDA	\$2,124	\$1,558
Adj'd EBITDA %	19%	20%
Total Debt	\$6,457	\$3,713
Cash and Investments	\$221	\$132
Net Total Debt/(Cash)	\$6,236	\$3,581
Market Capitalization	\$17,210	\$13,700
Enterprise Value	\$23,446	\$17,281
Debt % of EV	28%	21%
TD/EBITDA	3.0x	2.4x
Net TD/EBITDA	2.9x	2.3x
Adj TD/EBITDAR*	3.5x	3.0x
Interest Expense	\$254	\$161
EBITDA/Interest	8.4x	9.7x
(EBITDA-CapX)/Int	7.0x	7.8x
OCF	\$1,437	\$1,188
CapX	(\$331)	(\$296)
FCF	\$1,106	\$892
FCF/Debt	17%	24%
Share Repurchases	(\$232)	(\$215)
Dividends	\$0	(\$252)
Net FCF	\$874	\$425

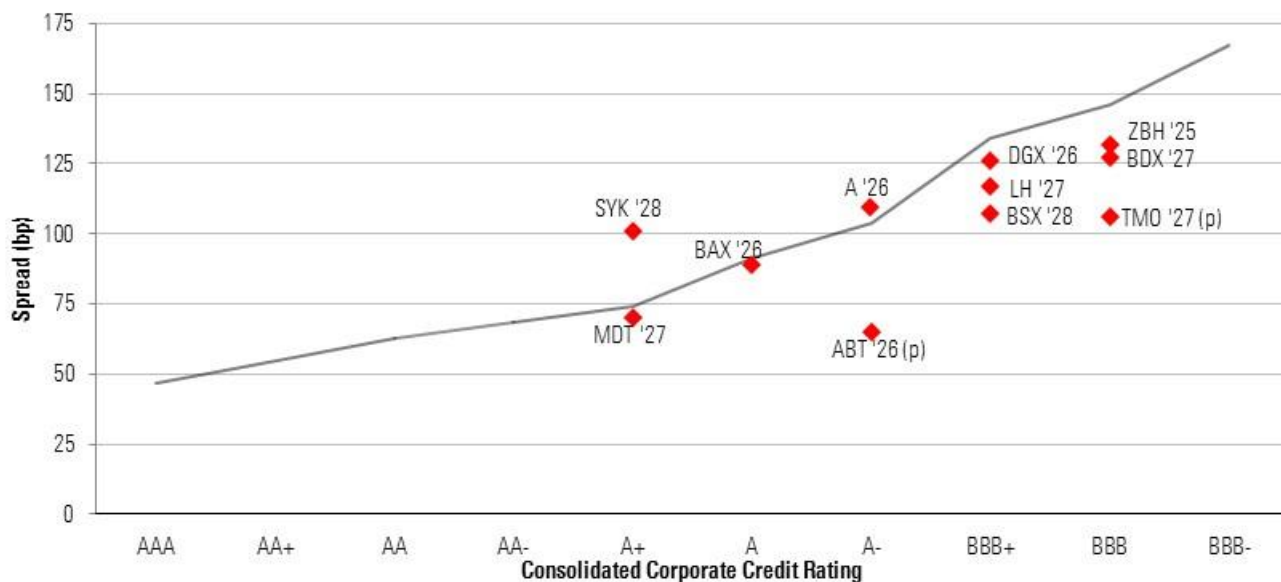
Source: Morningstar Credit Ratings, LLC as of Oct. 15, 2018

\*Adj TD includes total debt plus underfunded pension liabilities plus 8 times rents

### Market Data

Despite the maturity date differences in their respective bonds, Quest's bonds due 2026 (+126 basis points) recently traded 9 basis points wider than LabCorp's bonds due 2027 (+117 basis points).

**Exhibit 15** Medical Technology Sector Versus Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC and Interactive Data as of Oct. 15, 2018  
(UR) = rating under review/(p) = positive outlook/(n) = negative outlook

Both bonds trade tighter than Morningstar Inc's Corporate Bond Index at BBB+ (+134 basis points), but LabCorp's bonds trade tighter than the sector average of 13 basis points tighter than the index while Quest trades less tight than the average spread in this sector. ■■

**Exhibit 16** Medical Technology Sector Spreads

Health Care Issuer	Rating Outlook/		Coupon	Maturity	Yield	Spread	Difference From Index	Average Difference
	Rating	Review Status						
Stryker Corp	A+	Stable	3.65%	3/7/2028	4.16%	+101	27	
Agilent Technologies	A-	Stable	3.05%	9/22/2026	4.21%	+109	5	
Baxter International Inc	A	Stable	2.60%	8/15/2026	4.02%	+89	-2	
Medtronic PLC	A+	Stable	3.35%	4/1/2027	3.83%	+70	-4	
Quest Diagnostics Inc	BBB+	Stable	3.45%	6/1/2026	4.38%	+126	-8	-13
Zimmer Biomet Holdings Inc	BBB	Stable	3.55%	4/1/2025	4.40%	+132	-14	
Laboratory Corp of America Holdings	BBB+	Stable	3.60%	9/9/2027	4.31%	+117	-17	
Becton, Dickinson and Co	BBB	Stable	3.70%	6/6/2027	4.41%	+127	-19	
Boston Scientific Corp	BBB+	Stable	4.00%	3/1/2028	4.22%	+107	-27	
Abbott Laboratories	A-	Positive	3.75%	11/30/2026	3.78%	+65	-39	
Thermo Fisher Scientific Inc	BBB	Positive	3.20%	8/15/2027	4.20%	+106	-40	

Source: Morningstar Credit Ratings, LLC and Interactive Data as of Oct. 15, 2018

## Appendix

### **Laboratory Corp of America Holdings Moat**

The following description comes directly from Morningstar's Equity Research Group:

"LabCorp's narrow moat is based on its vast national infrastructure, which translates into a considerable scale advantage over smaller regional labs in the independent diagnostic testing industry. With 50 primary testing labs and 1,750 patient-service centers across the United States, LabCorp is able to run tests on 470,000 specimens each day at a substantially lower cost than most of the hospitals, doctors' offices, and smaller independent labs that populate the market. LabCorp's ability to accommodate higher throughput and its extensive use of automation affords the firm a much lower cost structure-- significantly lower than that of hospitals and smaller independent labs. This advantage also means LabCorp's model is characterized by substantial operating leverage. This operating leverage has worked against the firm in the wake of the recession when healthcare utilization fell down. However, as utilization has returned to growth, LabCorp has also benefited (though the addition of the CRO business has pressured margins). Although pricing has been rational in the recent past, the potential for price competition keeps us from awarding LabCorp a wide moat.

"Payers would typically rather negotiate with the largest reference labs, including LabCorp, that provide the best geographic coverage for the insured base, instead of cobbling together market-by-market coverage through multiple, smaller regional labs. Finally, LabCorp's scale and reach make it an attractive partner for researchers who invent various diagnostic tests but have no distribution channels through which to sell the tests. LabCorp's recent investment in a dedicated lab focused on companion diagnostics is another indication that the firm is thinking more creatively about how to more closely partner with other entities in the healthcare arena.

"We think the addition of Covance solidifies LabCorp's narrow moat — we had previously awarded Covance a narrow moat in its own right. For contract research organizations, the moatiest part of the business is in late-stage clinical trials, where global infrastructure is critical and not easily replicated. The legacy Covance business also benefits from intangible assets, including expertise with local country cultures, regulatory agencies, and changing regulations, research design, data analytics, knowledge of key disease states, and close relationships with pharmaceutical and biotech clients. The clinical trials business now can tap into LabCorp's enormous patient database in order to better match eligible patients with appropriate trials and reduce enrollment time. This capability gives LabCorp an advantage over the competitive CROs."



**Quest Diagnostics Inc Moat**

The following description comes directly from Morningstar's Equity Research Group:

" Quest enjoys a narrow moat as part of the duopoly that dominates the independent reference lab market. Compared with hospital-based labs and smaller regional players, Quest typically offers significant cost advantages thanks to its scale and volume. For example, tests at hospital labs typically cost 3 times more, on average, than the same test at Quest. This advantage becomes most evident when throughput increases and translates into high operating leverage. Additionally, the firm's nationwide footprint with an extensive network of patient service centers and in-physician office services would be difficult to replicate from scratch. Quest's advantageous cost structure and national coverage are also appealing to the payers that structure reimbursement and policies to funnel patients to the large independent labs. Payers would typically rather negotiate with the largest reference labs, including Quest, that provide the best geographic coverage for the insured base instead of cobbling together market-by-market coverage through multiple, smaller regional labs. Finally, Quest's scale and reach make it an attractive partner for the researchers who invent various diagnostic tests but have no distribution channels through which to sell the tests."

## Descriptors for Pillar Analysis

	Score Range	Business Risk	Rating Pillars		Distance to Default
			Cash Flow Cushion	Solvency Score	
<i>Strongest</i>	1-2	Minimal	Very Strong	Very Strong	Very Strong
	3-4	Low	Strong	Strong	Strong
	5-6	Moderate	Moderate	Moderate	Moderate
	7-8	High	Weak	Weak	Weak
<i>Weakest</i>	9-10	Very High	Very Weak	Very Weak	Very Weak

## Business Risk Pillar Components

### Country Risk (10% of Business Risk Score)

<i>Weakest</i>	Very High Risk
	High Risk
	Moderate Risk
<i>Strongest</i>	Low Risk

### Company Risk (90% of Business Risk Score)

	Size	Economic Moat	or Sustainable Competitive Advantage	Uncertainty
<i>Weakest</i>	Very Small	None	None	Extreme
	Small			Very High
	Moderate	Narrow	Moderate	High
	Large			Medium
<i>Strongest</i>	Very Large	Wide	Substantial	Low

	Product/Customer Concentration	Management	Dependence on Capital Markets	Cyclicality
<i>Weakest</i>	Highly Concentrated	Aggressive	Extremely Dependent	Highly Cyclical
	Concentrated	Fairly Aggressive	Highly Dependent	Cyclical
	Neutral	Neutral	Dependent	Average Cyclicality
	Diversified	Fairly Conservative	Low Dependence	Mild Cyclicality
<i>Strongest</i>	Highly Diversified	Conservative	Very Low Dependence	Non-Cyclical

## Morningstar® Credit Research

### For More Information

Todd Serpico  
+1 312 384-5488  
Todd.Serpico@morningstar.com



22 West Washington Street  
Chicago, IL 60602 USA

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