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STOCK PICKS AND PANS
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Failure to Adapt Dooms This Stock

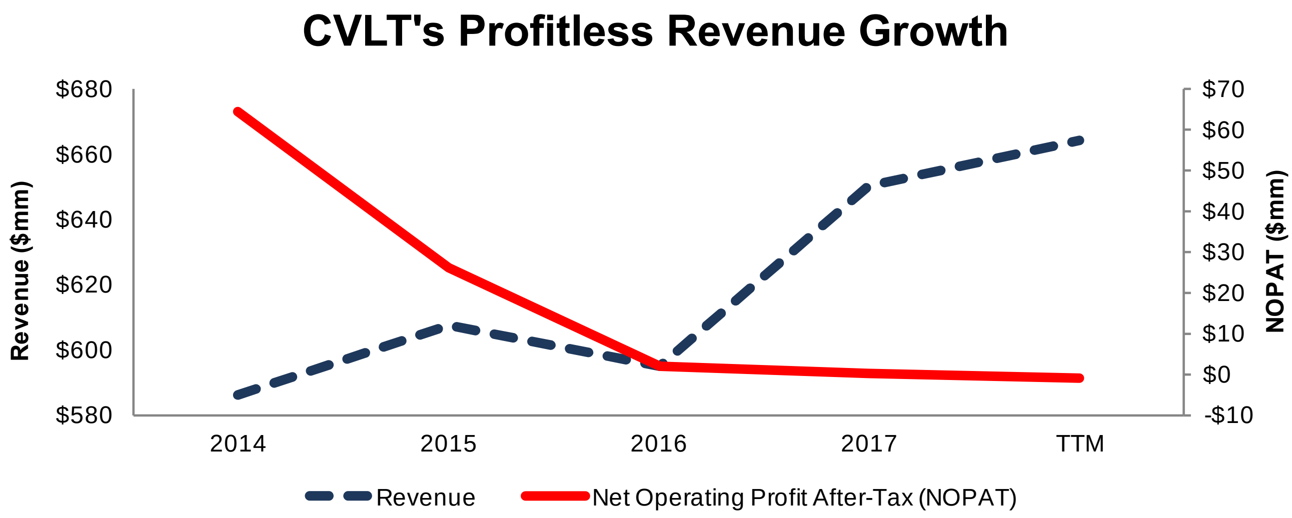
Check out this week's Danger Zone interview with Chuck Jaffe of Money Life.

Failing to adapt in a timely fashion can send a business into a downward spiral. This firm's late transition to the cloud based software market has left it with falling profits, lagging margins, and a significantly overvalued stock. CommVault Systems, Inc. (CVLT: $61/share) is this week's Danger Zone pick.

Revenue Growth with No Profits to Show For

Per Figure 1, CVLT's revenue has grown 4% compounded annually since 2014 while its after-tax profit (NOPAT) has fallen from $65 million in 2014 to -$1 million over the last twelve months (TTM). The disconnect between revenue and profits comes from rapidly declining margins. The company's NOPAT margin fell from 11% in 2014 to 0% TTM.

Figure 1: CVLT's NOPAT & Revenue Since 2014



Sources: New Constructs, LLC and company filings

Declining margins have sent CommVault's return on invested capital (ROIC) into negative territory (-1% TTM). Further, the company has burned through a $25 million (1% of market cap) in cumulative free cash flow since 2014. The firm's -$39 million in FCF over the last twelve months equates to a -2% FCF yield, which is well below the 2% average of the stocks in the S&P 500.

Compensation Plan Misaligns Executive Interests

CommVault's executive compensation plan fails to properly align executives' interests with shareholders' interests. The misalignment drives the profit losses shown in Figure 1. Worse, the current compensation plan allows executives to earn large bonuses while shareholder value is destroyed.

Executives' cash bonuses are tied to the achievement of revenue and non-GAAP operating income goals. Non-GAAP operating income conveniently removes real operating costs such as stock-based compensation and tax expenses on stock options and restricted stock awards.

The performance measures used for equity awards include total shareholder return, revenue and non-GAAP operating income.

We've demonstrated through numerous case studies that ROIC, not revenue or non-GAAP metrics, is the primary driver of shareholder value creation. A recent white paper published by Ernst & Young also validates the importance of ROIC (see here: Getting ROIC Right) and the superiority of our data analytics. Without major changes to this compensation plan (e.g. emphasizing ROIC), investors should expect further value destruction. In addition, we suggest the board of directors, especially the compensation committee, consider their culpability and responsibility for the misalignment of interests.

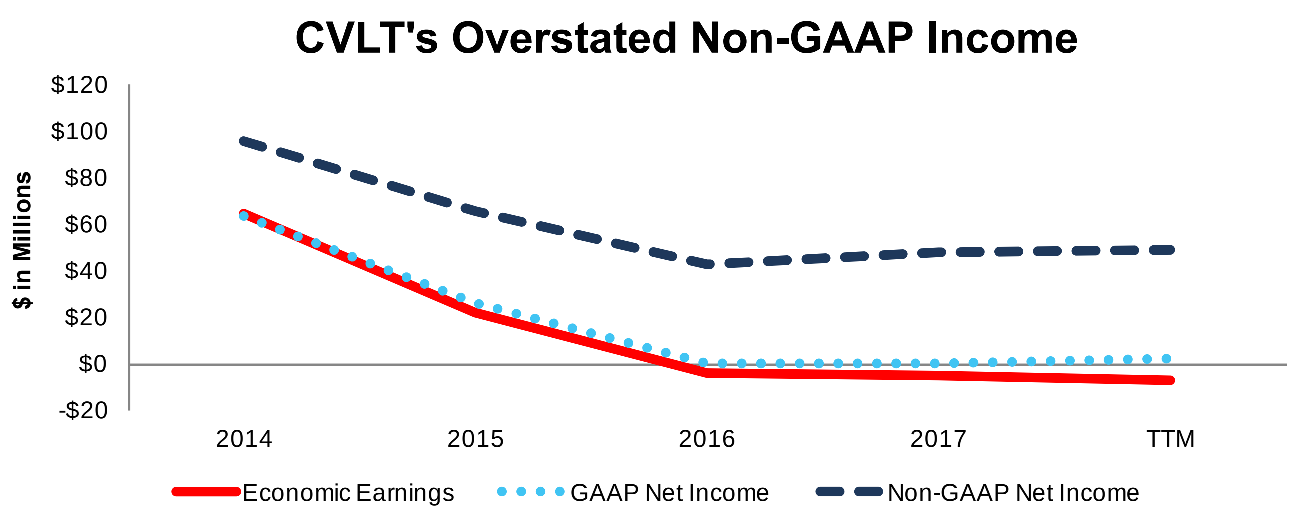
Non-GAAP Metrics Hide the Firm's Profitability Issues

CommVault uses non-GAAP metrics such as non-GAAP operating income and non-GAAP net income to overstate its true profitability. Our research digs deeper so our clients see through the illusory numbers. Below are some of the items CommVault removes to calculate its non-GAAP net income:

1. Stock-based compensation
2. Payroll tax expense on stock options and restricted stock awards

These adjustments have a large impact on the disparity between GAAP net income, non-GAAP net income, and economic earnings. In 2017 and 2016, CommVault removed over $74 million (11% of revenue) and $64 million (11% of revenue) respectively in expenses related to stock-based compensation to calculate non-GAAP net income. When added with the other adjustments, CommVault reported 2017 non-GAAP net income of $48 million. Per Figure 2, GAAP net income was $1 million and economic earnings were -$5 million in 2017.

Figure 2: CVLT's Misleading Non-GAAP Metrics



Sources: New Constructs, LLC and company filings

Formidable Competition Limits Profitability Expectations

CommVault's business covers a wide-range of products and services, largely grouped into the data and information software application market. More specifically, CVLT provides software solutions that provide data protection, backup, and recovery, cloud infrastructure management, and data indexing/archiving. The data management market is highly competitive, with firms ranging from small one-off solutions to industry leaders with a suite of products able to meet the many needs of customers. The proliferation of cloud computing in recent years has also increased the competition in the market. Competitors include firms such as Oracle (ORCL), VMware (VMW), SAP, Dell EMC, International Business Machines (IBM), and Veritas (recently spun out of Symantec (SYMC) among others.

Per Figure 3, CVLT's ROIC and NOPAT margin fall well below nearly all competitors/peers. In fact, the only firm with a lower margin is prior Danger Zone pick Carbonite (CARB). Success in the information software market is largely dependent on product functionality, scalability, and price. The firms with the highest profitability have greater flexibility to invest in product enhancement, new offerings, increased integration across data management, and ultimately undercut competitors pricing if necessary. Firm's with lower profitability, such as CommVault face consistent margin pressure and limited resources to build industry leading technologies.

Figure 3: CommVault Systems' Lagging Profitability

Company	Ticker	Return on Invested Capital (ROIC)	NOPAT Margin
Oracle Corporation	ORCL	20%	28%
Microsoft Corporation	MSFT	28%	21%
VMware Inc.	VMW	35%	18%
International Business Machines	IBM	9%	14%
Red Hat, Inc.	RHT	12%	11%
Symantec Corporation	SYMC	1%	3%
Vasco Data Security	VDSI	2%	2%
CommVault Systems, Inc.	CVLT	-1%	0%
Carbonite Inc.	CARB	-9%	-2%

Sources: New Constructs, LLC and company filings

Bull Case Ignores CommVault's Struggles Post "Transformation"

Prior to 2014, CommVault was consistently growing revenue and profits while selling its Simpana branded software platform. However, the shift to cloud based solutions, one-off software offerings (one piece of the data management "puzzle), and even a shift from license to subscription based arrangements left CVLT behind in a rapidly changing industry. Since then, the firm has been unable to stop the downward trend in profitability. To buy into the bull case now requires belief that years of struggles are suddenly coming to an end, despite a more competitive market.

Beginning in 2014, CommVault began transitioning its business to address the changing landscape. The firm looked to build on its existing platform, move solutions to cloud-based services, and target standalone software solutions. Management was upfront about the struggles the company would face, but the results have not been as positive as expected. As early as fiscal 3Q15, management noted that the transformation of CVLT was designed to "bring the firm back to historical financial performance in the second half of fiscal 2016." However, profitability continued its decline, as NOPAT margin fell from 4% in 2015, to 0.3% in 2016, and then 0% in 2017.

The side effects of this business transformation have been rising costs that are eating away at profitability. Per Figure 4, research & development, sales & marketing, and general & administrative costs have risen 15%, 11%, and 8% compounded annually respectively since 2014. Meanwhile, revenues have grown only 4% compounded annually over the same time.

Figure 4: CommVault's Expenses Outpacing Revenue Growth

Operating Item	2014	2017	CAGR
Research & Development	$55	$84	15%
Sales & Marketing	$283	$388	11%
General & Administrative	$67	$85	8%
Cost of Revenues	$74	$85	5%
Revenue	$586	$651	4%

Sources: New Constructs, LLC and company filings

The growth in expenses presents a troubling situation for CommVault. The company must spend heavily in development and advertising to introduce new products and/or move into different pricing strategies. However, continued expense growth limits the firm's ability to achieve profitability. Further compounding the issue, creating new products always brings uncertainty and the firm must execute to perfection to ensure the market uptake.

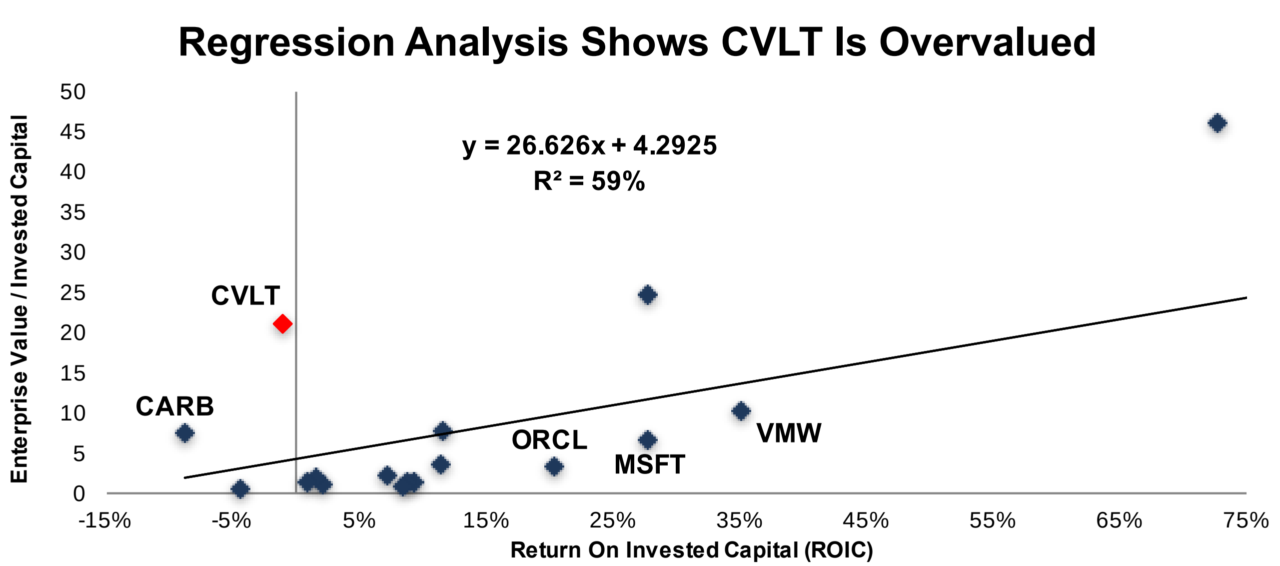
Despite the execution risk, the expectations baked into CommVault's stock price imply that the firm will reverse years of issues, immediately achieve profitability, and significantly grow profits, as we'll show below.

CommVault's Valuation Implies Unrealistic Profit Growth

CVLT has risen 76% over the past two years and 24% year-to-date while the S&P 500 has risen 29% and 12% over the same time frames. This performance has occurred despite NOPAT and ROIC declining. This move in the stock has widened the chasm between the company's current financial performance and the significantly higher profits implied by the stock's market value.

Figure 5 shows CVLT and its peers compared on the basis of ROIC and enterprise value divided by invested capital (a cleaner version of price to book). As you can see, ROIC explains 59% of the changes in valuation for the peer group.

Figure 5: ROIC Explains 59% of Valuation for the Systems Software Market



Sources: New Constructs, LLC and company filings

CVLT stands out as an outlier in Figure 5 and trades at a significant premium to its peers. If the stock were to trade a parity with the peer group, it would be $19/share – 70% below the current stock price. Given the firm's deteriorating fundamentals it should be clear CVLT does not deserve such a premium valuation.

Our discounted cash flow model quantifies the expectations baked into that premium valuation. To justify its current price of $61/share, CVLT must immediately achieve 8% NOPAT margins (average of 2007-2014, before competitive advantage eroded, compared to 0% TTM) and grow revenue by 12% compounded annually for the next 14 years. This scenario would imply NOPAT growth of 138% compounded annually. The large NOPAT CAGR is a result of the immediate assumption of profitability after NOPAT was -$1 million over the last twelve months. This scenario seems overly optimistic given the firm's struggles improving profitability since transitioning its business.

Even if we assume CVLT can achieve 4% NOPAT margins and grow revenue by 10% compounded annually for the next decade, the stock is still worth only $27/share today – a 56% downside risk. This scenario implies NOPAT growth of 198% compounded annually. Again, the large NOPAT CAGR is a result of the immediate assumption of profitability.

Each of these scenarios also assumes CVLT is able to grow revenue, NOPAT and FCF without increasing working capital or investing in fixed assets. This assumption is unlikely but allows us to create optimistic scenarios that demonstrate just how high expectations embedded in the current valuation really are. For reference, CVLT's invested capital has grown on average $29 million (5% of revenue) each year since 2014.

Is CVLT Worth Acquiring?

The largest risk to any bear thesis is what we call "stupid money risk", which means an acquirer comes in and pays for CVLT at the current, or higher, share price despite the stock being overvalued. With large, more profitable competitors in the market make an acquisition less likely. Competitors would be better suited to out compete CVLT rather than ignore prudent stewardship of capital and destroy substantial shareholder value in an acquisition. We show below how expensive CVLT remains even after assuming an acquirer can achieve significant synergies.

Walking Through the Acquisition Value Math

To begin, CommVault has liabilities of which investors may not be aware that make it more expensive than the accounting numbers suggest.

1. $97 million in outstanding employee stock options (3% of market cap)
2. $30 million in off-balance-sheet operating leases (1% of market cap)

After adjusting for these liabilities, we can model multiple purchase price scenarios. Even in the most optimistic of scenarios, CommVault is worth less than its current share price.

Figures 6 and 7 show what we think IBM should pay for CVLT to ensure it does not destroy shareholder value. IBM could integrate CVLT into its enterprise offerings and immediately increase its exposure in the information software market. However, there are limits on how much IBM would pay for CVLT to earn a proper return, given the NOPAT and free cash flows (or lack thereof) being acquired.

Each implied price is based on a 'goal ROIC' assuming different levels of revenue growth. In both scenarios, the estimated revenue growth rate is 9% in year one and 10% in year two, which is the consensus estimate of revenue growth for the next two years. For the subsequent years, we use 10% in scenario one because it represents a continuation of next year's expectations. We use 15% in scenario two because it assumes a merger with IBM would create revenue synergies thorough increased exposure to IBM's larger enterprise customer base.

We conservatively assume that IBM can grow CVLT's revenue and NOPAT without spending anything on working capital or fixed assets beyond the original purchase price. We also assume CVLT immediately achieves a 7% NOPAT margin, which is the average of IBM's and CommVault's current NOPAT margin. For reference, CVLT's TTM NOPAT margin is 0%, so this assumption implies immediate improvement and allows the creation of a truly best-case scenario.

Figure 6: Implied Acquisition Prices for IBM To Achieve 5% ROIC

To Earn 5% ROIC On Acquisition		
Revenue Growth Scenario	CVLT's Implied Stock Value	% Discount to Current Price
10% CAGR for 5 years	$38	38%
13% CAGR for 5 years	$43	30%

Sources: New Constructs, LLC and company filings.

Figure 6 shows the 'goal ROIC' for IBM as its weighted average cost of capital (WACC) or 5%. Even if CVLT can grow revenue by 13% compounded annually with a 7% NOPAT margin for the next five years, the firm is worth less than its current price of $61/share. It's worth noting that any deal that only achieves a 5% ROIC would be only value neutral and not accretive, as the return on the deal would equal IBM's WACC.

Figure 7: Implied Acquisition Prices for IBM To Achieve 9% ROIC

To Earn 9% ROIC on Acquisition		
Revenue Growth Scenario	CVLT's Implied Stock Value	% Discount to Current Price
10% CAGR for 5 years	$25	60%
13% CAGR for 5 years	$27	55%

Sources: New Constructs, LLC and company filings.

Figure 7 shows the next 'goal ROIC' of 9%, which is IBM's current ROIC. Acquisitions completed at these prices would be truly accretive to IBM shareholders. Even in the best-case growth scenario, the most IBM should pay for CVLT is $27/share (55% downside to current valuation). Even assuming this best-case scenario, IBM would destroy over $1.2 billion by purchasing CVLT at its current valuation. Any scenario assuming less than 13% compound annual growth in revenue would result in further capital destruction for IBM.

Rising Expectations Setting Up an Earnings Disappointment

Despite the deteriorating fundamentals and inherent risks in the turnaround story, expectations for CVLT are rising. Over the past 12 months, the consensus 2017 EPS estimate has risen 5% while the consensus 2018 EPS estimate has risen over 15%.

The rising expectations create a scenario where any revenue or earnings miss could send shares falling. We've already highlighted the optimistic expectations baked into the stock price and essentially the stock is priced for perfection. Anything less could bring to light that the transformation has not returned the firm to its prior profitability.

While we don't attempt to predict exactly when the market will recognize the disconnect between expectations and reality, we know the impact of failing to meet expectations can be highly negative.

Insider Trading is Minimal While Short Interest is Rising

Over the past 12 months, 60 thousand insider shares have been purchased and 468 thousand have been sold for a net effect of 408 thousand insider shares sold. These sales represent 1% of shares outstanding.

Short interest is currently 1 million shares, equating to 2% of shares outstanding and nearly 5 days to cover. There has been a significant jump in short interest this year, as the number of shares sold short has nearly doubled from the end of 2016. Growing short interest would seem to imply we're not the only ones who recognize the issues facing CVLT and its lofty valuation.

Auditable Impact of Footnotes & Forensic Accounting Adjustments

Our Robo-Analyst technology enables us to perform forensic accounting with scale and provide the research needed to fulfill fiduciary duties. In order to derive the true recurring cash flows, an accurate invested capital, and an accurate shareholder value, we made the following adjustments to CommVault's 2017 10-K:

Income Statement: we made $5 million of adjustments with a net effect of removing $1 million in non-operating income (<1% of revenue). We removed $2 million related to non-operating expenses and $3 million related to non-operating income. See all the adjustments made to CVLT's income statement here.

Balance Sheet: we made $523 million of adjustments to calculate invested capital with a net decrease of $434 million. Apart from $418 million in excess cash, the most notable adjustment was $61 million (12% of reported net assets) related to deferred tax assets. See all adjustments to CVLT's balance sheet here.

Valuation: we made $576 million of adjustments with a net effect of increasing shareholder value by $320 million. Apart from the excess cash noted above, the largest adjustment to shareholder value was $97 million in outstanding employee stock options. This adjustment represents 4% of CVLT's market cap. Despite the net increase in shareholder value, CVLT remains significantly overvalued.

Unattractive Funds That Hold CVLT

The following funds receive our Unattractive-or-worse rating and allocate significantly to CommVault Systems.

1. Broadview Opportunity Fund (BVAOX) – 2.7% allocation and Unattractive rating
2. Dreyfus Investment Funds: The Boston (DBMAX) – 1.8% allocation and Very Unattractive rating
3. Nuveen Small Cap Growth Opportunities Fund (FMPCX) – 1.6% allocation and Very Unattractive rating

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Disclosure: David Trainer, Kyle Guske II, and Kenneth James receive no compensation to write about any specific stock, style, or theme.

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Value Investing 2.0: Diligence Matters: Technology is Key to Value Investing With Scale

Accounting data is only the beginning of fundamental research. It must be translated into economic earnings to truly understand profitability and valuation. This translation requires deep analysis of footnotes and the MD&A, a process that our robo-analyst technology empowers us to perform for thousands of stocks, ETFs and mutual funds.

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