

Company Description: Cognex vision helps companies improve product quality, eliminate production errors, lower manufacturing costs, and exceed consumer expectations for high quality products at an affordable price. Typical applications for machine vision include detecting defects, monitoring production lines, guiding assembly robots, and tracking, sorting and identifying parts. With such a broad range of products and systems,

Short

Current Price: \$43.92

Target Price: \$33.00

Market Cap: 7.56 B

Key LTM Data		
	CGNX	Peers
NOPAT Margin	19.3%	12.03%
Adj. NI Margin	19.3%	10.88%
ROIC	1.77%	2.71%
ROE	1.68%	2.38%
Total Debt/Capital	0.00%	12.18%
Kd	-	4.51%
Credit Rating	-	bbb
Ke	11.77%	13.23%
WACC	11.77%	11.69%



Thesis:

Great margins, growing FCF, no debt, and a short? I'm betting against the market after taking a look at the Massachusetts based machine –vision company Cognex (**COGN**ition **EX**pert) The company has a great product, but seems to be having trouble selling their top-of-the-line scanners and defect detectors. This misstep in the balance sheet will only be compounded in error if the market is on edge, and the company is not making the sales it needs to be. Their YoY Q3 revenues are down, but estimates for Q4 are higher than they were just one year ago. While they have consistently beaten earnings in the past, with a few small misses, Cognex will have to step their sales up in the last quarter if they want to turn their 20% tumble for the year around.

Catalysts:

- Short Term: Market Volatility
- Mid Term: Decrease of margins due to backlog and receivables
- Long Term: Anybody's Guess

Earnings Performance:

2017 was a great year for Cognex, beating revenue estimates every quarter. In 2018 Q1, they missed revenues by a small lot, and with the overall economy at it's peak, emotions looked to outweigh analysis as people sold out at the company's all time high. A quick look at their financial show high margins, which begs the question why a company with no debt and great margins tank after a record year? Revenue grew 43.6% last year and look to continue hit double digit marks for the closing year.

CGNX US Equity % Actions Export Settings Financial Analysis									
Key Stats 1/S B/S C/F Ratios Segments Add ESG Custom									
Adj Highlights	GAAP Highlights	Earnings	Enterprise Value	Multiples	Per Share	Stock Value			
In Millions of USD	2014 Y	2015 Y	2016 Y	2017 Y	Current/LTM	2018 Y Est	2019 Y Est		
12 Months Ending	12/31/2014	12/31/2015	12/31/2016	12/31/2017	09/30/2018	12/31/2018	12/31/2019		
Market Capitalization	3,576.8	2,865.6	5,467.4	10,611.7	7,139.0				
- Cash & Equivalents	146.2	348.4	420.8	404.5	527.4				
+ Preferred & Other	0.0	0.0	0.0	0.0	0.0				
+ Total Debt	0.0	0.0	0.0	0.0	0.0				
Enterprise Value	3,430.6	2,517.1	5,046.6	10,207.1	6,611.7				
Revenue, Adj	426.4	450.6	520.8	748.0	793.4	800.2	902.8		
Growth %, YoY	20.5	5.7	15.6	43.6	11.4	7.0	12.8		
Gross Profit, Adj	332.4	348.0	405.2	579.3	599.5	600.2	678.7		
Margin %	77.9	77.2	77.8	77.4	75.6	75.0	75.2		
EBITDA, Adj	140.3	135.6	175.4	276.6	248.7	248.1	295.6		
Margin %	32.9	30.1	33.7	37.0	31.3	31.0	32.7		
Net Income, Adj	108.5	104.5	149.9	257.1	216.6	215.4	240.0		
Margin %	25.4	23.2	28.8	34.4	27.3	26.9	26.6		
EPS, Adj	0.61	0.59	0.86	1.44	1.23	1.20	1.42		
Growth %, YoY	45.4	-2.4	45.3	66.8	38.1	-16.5	18.8		
Cash from Operations	156.0	128.3	182.1	224.3	236.0				
Capital Expenditures	-20.9	-18.2	-12.8	-28.8	-36.1	-34.2	-29.6		
Free Cash Flow	135.0	110.1	169.3	195.6	199.9	206.7	231.5		

Cash:

I always like to look at the cash a company holds before anything else. A company like CGNX had 31% of assets in cash last year, raising a red flag for their outlook. With no interest payments to make why is this not getting cycled in to spur organic growth that a firm in the IT world needs. Their Capex has increased, but they

In Millions of USD except Per Share		2012 Y	2013 Y	2014 Y	2015 Y	2016 Y	2017 Y
12 Months Ending		12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
Total Assets							
+ Cash, Cash Equivalents & STI		150.3	225.5	146.2	348.4	420.8	404.5
+ Cash & Cash Equivalents		45.2	40.6	55.7	52.0	79.6	106.6
+ ST Investments		105.1	184.8	90.5	296.5	341.2	298.0

have not invested enough it seems, especially with their low RRR given a comp with competitors on page 1. This issue of cash and not having a good next idea that can drive profits and possibly lead them to be acquired led me to dig into some other items next. One important note is also their R&D costs which have increased, but I'm not sure it is to the extent that a machine vision company might need.

Forecast:

Remember, CGNX looks like a solid company. So I decided to boost revenue in the explicit period to see the firm's reaction. These were the revenue projections I used in the proforma. Double digit revenue growth for years couldn't pick this company out of the dirt. I asked myself why this would be, there is no debt, assumptions make sense for the given industry and discount rate remained at K_e . This posed some questions about the underlying fundamentals of the firm, which shed some light on the topic. This company has a great portfolio of products, in an industry that is highly competitive, and in my belief will take off. This issue in the tech world as everyone knows, great ideas don't always promise that windfall return, and have a higher chance of crashing than soaring. I'm not one to usually bet against the market, but if we look at the industry now, and our basically decade long bull market, uncertainty is looming. And with eroding fundamentals, an uncertain outlook, and a price to FCF of \$54.19 I'm watching CGNX by the second. The market has had mixed feelings on this company in the past couple months, and I think we are going to see a sharp downturn very soon.

	Revenues	Adj. EBITDA Margin
\$	777.84	27.018%
\$	1,116.31	31.020%
\$	1,541.07	33.657%
\$	2,131.36	34.020%
\$	2,830.46	35.275%
\$	3,616.09	31.396%
\$	4,453.95	27.870%
\$	5,302.11	24.696%
\$	6,117.25	21.874%
\$	6,861.33	19.406%
\$	7,507.12	17.290%
\$	8,041.56	15.527%
\$	8,466.53	14.116%
\$	8,797.47	13.058%
\$	9,060.66	12.353%
\$	9,290.17	12.000%
\$	9,525.49	12.000%

Rev Growth	Adj. EBITDA
43.5%	\$ 346.28
38.0%	\$ 518.67
38.3%	\$ 725.10
32.8%	\$ 998.46
27.8%	\$ 1,135.31
23.2%	\$ 1,241.30
19.0%	\$ 1,309.39
15.4%	\$ 1,338.11
12.2%	\$ 1,331.50
9.4%	\$ 1,297.97
7.1%	\$ 1,248.58
5.3%	\$ 1,195.13
3.9%	\$ 1,148.77
3.0%	\$ 1,119.23
2.5%	\$ 1,114.82
2.5%	\$ 1,143.06

Short Interest:

A quick look to the chart shows a relatively high short interest for the company. With a high daily volume, this is a stock that I feel would be a good candidate to short and I think many investors have a similar outlook. I want the fund to take a look at this and realize, we can time this decision just right, and get in before the stock takes any more hits. The float has increased since last year



Accounts Receivables:






I wanted to check the fundamentals of the company and decided to look at the all important Accounts Receivables. Here I found an issue. The A/R had over doubled and without reason. Their COGS/Remains about the same 22% and their CCC looks to have no material change, but A/R does. In a year with such significant growth in revenue, why is there now a large issue with collections. This is hurting the financials for Cognex and if this isn't cleaned up in the year, which I don't believe it will be, we are all going to see CGNX continue its plunge.

In Millions of USD except Per Share	2012 Y	2013 Y	2014 Y	2015 Y	2016 Y	2017 Y
12 Months Ending	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
 + Accounts & Notes Receiv	42.4	53.0	40.1	42.8	55.4	119.4
 + Accounts Receivable, Net	42.4	53.0	40.1	42.8	55.4	119.4
 + Notes Receivable, Net	0.0	0.0	0.0	0.0	0.0	0.0

The issue I see with this is they aren't getting their money back quick enough and they need that money to start new research on other products which will open new markets and fuel similar growth to last year.

Inventory:

Here's the smoking gun. Cognex looks great on paper, as long as that paper isn't their balance sheet. Inventories have came out of no where and don't seem to be moving. If their warehouses are full in 2017 and their 2018 Q1 earnings are missed, do you really think they sold all of these items?

In Millions of USD except Per Share	2012 Y	2013 Y	2014 Y	2015 Y	2016 Y	2017 Y
12 Months Ending	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
 + Inventories	26.2	25.7	29.2	37.3	27.0	67.9
 + Raw Materials	12.7	13.1	18.2	27.3	18.2	33.9
 + Work In Process	4.2	4.5	5.1	3.1	2.8	2.1
 + Finished Goods	9.3	8.1	5.9	6.9	6.0	31.9
 + Other Inventory	0.0	0.0	0.0	0.0	0.0	0.0

I would be okay if their raw material were up, after a great year, why not take on some more and try to move some product. I'm not okay with stagnant finished goods that all but sextupled in a calendar year. Where are they selling this stuff and why is it not getting sold anymore. From everything I've read the product is great, the price point is fair, as it allows a company to make back their money outlayed by saving costs and operating so much more efficiently. The only thing left is a backlog and a missed sales quota.

Conclusion:

Cognex is a risk no doubt about it. If you buy in now, they may have another terrible year and drop to \$30 a share. If you short them, they might have collected on all of their receivables, and sold the entire warehouse of inventory, sending them to \$50 or \$60 bucks a share. They might have, but how are we kidding, they are losing efficiency and they can't find customers for their cameras. They have cash sitting in their accounts, which I might add they aren't paying much of, and they don't know what to do next. Last time I checked growth and stagnant didn't mean the same thing. I love looking at a company and seeing a pile of cash slowly get smaller and inventories slowly getting bigger, and thinking I only wish I shorted them sooner. Look at the facts and short CGNX.

Cognex Corporation (CGNX)

CENTER FOR GLOBAL FINANCIAL STUDIES

BEARISH

Analysis by Zachary Girvin
12/7/2018

Current Price:
Dividend Yield:

\$41.80
0.5%

Intrinsic Value
Target Price

\$30.28
\$33.00

Target 1 year Return: -20.6%
Probability of Price Increase: 0%



Description	
Cognex Corporation provides machine vision products that capture and analyze visual information in order to automate tasks primarily in manufacturing processes worldwide.	
General Information	
Sector	Information Technology
Industry	Electronic Equipment, Instruments and Compon
Last Guidance	May 8, 2018
Next earnings date	February 11, 2019
Market Assumptions	
Estimated Equity Risk Premium	6.77%
Effective Tax rate	23%

Market Data	
Market Capitalization	\$1,562.64
Daily volume (mil)	0.62
Shares outstanding (mil)	172.19
Diluted shares outstanding (mil)	178.72
% shares held by institutions	34%
% shares held by investments Managers	85%
% shares held by hedge funds	3%
% shares held by insiders	4.66%
Short interest	6.63%
Days to cover short interest	7.67
52 week high	\$70.00
52-week low	\$36.16
Volatility	33.45%

Past Earnings Surprises	
Quarter ending	Revenue
10/1/2017	3.34%
12/31/2017	0.34%
4/1/2018	-0.25%
7/1/2018	3.06%
9/30/2018	2.31%
Mean	1.88%
Standard error	1.0%

EBITDA	
10/1/2017	-0.51%
12/31/2017	3.83%
4/1/2018	-1.11%
7/1/2018	4.31%
9/30/2018	1.73%
Mean	1.66%
Standard error	5.0%

Market and Credit Scores	
Recommendation (STARS) Value--3	
Recommendation (STARS) Description--Hold	
Quality Ranking Value--B+	
Quality Ranking Description--Average	
Short Score--2	
Market Signal Probability of Default % (Non-Ratings)--0.15%	
CreditModel Score (Non-Ratings)--N/A	

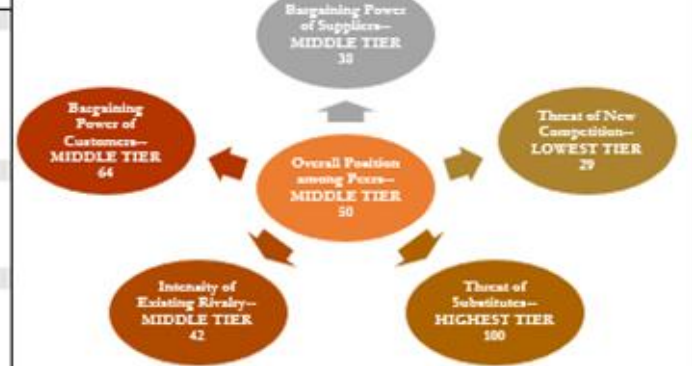
Management	
Willett, Robert	CEO, President & Executive Director
Curran, John	Senior VP of Finance & Administration, Treasu
Morin, Richard	Senior VP & Secretary
DiPalma, Sheila	Senior VP of Corporate Employee Services &
Shillman, Robert	Founder, Executive Chairman & Chief Culture C
Conway, Susan	Senior Director of Investor Relations

Total Compensation Growth	
47.39% per annum over 5y	
5.08% per annum over 5y	
0% per annum over 0y	
17.07% per annum over 5y	
0% per annum over 0y	
5.33% per annum over 4y	

Industry and Segment Information	
LTM Revenues by Geographic Segment	LTM Revenues by Business Segments
Europe--43%	Machine Vision Technology--100%
Greater China--14%	

Profitability	
CGNX (LTM)	CGNX Historical
Return on Capital (GAAP)	13.8%
Operating Margin	28%
Revenue/Capital (GAAP)	0.70
ROE (GAAP)	11.7%
Net margin	18.8%
Revenue/Book Value (GAAP)	0.622934736

Peers' Median (LTM)	
10.58%	
14.33%	
0.74	
11.8%	
3.4%	
1.26	



Invested Funds	
CGNX (LTM)	CGNX Historical
Cash/Capital	23.6%
M/W/C/Capital	6.5%
Operating Assets/Capital	55.4%
Goodwill/Capital	8.5%

Peers' Median (LTM)	
16.8%	
11.1%	
36.3%	
21.7%	

Capital Structure	
CGNX (LTM)	CGNX Historical
Total Debt/Market Capitalization	0.02
Cost of Debt	5.0%
CGFS Rating (F-score, Z-score, and default Probability)	AA
WACC	12.0%

