

Date: _02/25/13__

Analyst Name: Eric Russell__

CIF Stock Recommendation Report (Spring 2013)

Company Name and Ticker: Ingersoll-Rand PLC (IR)__

Section (A) Summary

Recommendation Buy: No		Target Price:	Stop-Loss Price:
Sector: Industrials	Industry: Capital Goods	Market Cap (in Billions): 15.589	# of Shrs. O/S (in Millions): 296.32
Current Price: \$52.61	52 WK Hi: \$53.90	52 WK Low: \$37.34	EBO Valuation: \$25.12
Morningstar (MS) Fair Value Est.: \$46.00	MS FV Uncertainty: High	MS Consider Buying: \$27.60	MS Consider Selling: \$71.30
EPS (TTM): 3.35	EPS (FY1): 3.61	EPS (FY2): 4.09	MS Star Rating: 3 Stars
Next Fiscal Yr. End "Year": 2013 "Month": December	Last Fiscal Qtr. End: Less Than 8 WK: Y N	If Less Than 8 WK, next Earnings Ann. Date: March 31 st	Analyst Consensus Recommendation: 2.40
Forward P/E: 12.97	Mean LT Growth: 10.93%	PEG: 1.19	Beta: 1.77
% Inst. Ownership:	Inst. Ownership- Net Buy: Y N	Short Interest Ratio: 1.20	Short as % of Float: .70%
<u>Ratio Analysis</u>	<u>Company</u>	<u>Industry</u>	<u>Sector</u>
P/E (TTM)	16.08	18.82	21.77
P/S (TTM)	1.12	2.46	1.91
P/B (MRQ)	2.19	1.81	1.45
P/CF (TTM)	10.97	7.21	11.88
Dividend Yield	1.59	1.75	1.86
Total Debt/Equity (MRQ)	45.23	26.67	74.94
Net Profit Margin (TTM)	17.78	30.82	33.26
ROA (TTM)	5.62	6.97	3.26
ROE (TTM)	14.56	10.26	7.98

<p><u>Investment Thesis</u></p> <ul style="list-style-type: none"> • Ingersoll-Rand is currently trading right around their 52-week high and could be overvalued right now. • EBO valuation gave me an implied price of just over \$25, another sign that the company is currently overvalued. • Analyst recommendations gave a mean rating of 2.40, which is fairly high, and on the bearish side. • With a high beta of 1.77 this company has high volatility, which causes uncertainty for future trading prices. • Morningstar consider buying is \$27.60, which is much lower than the current price of \$52.61. • Analysts on Morningstar were extremely bearish and uncertain about Ingersoll-Rand on the company overview. • There is currently uncertainty about the spin off Ingersoll-Rand is working on, which will separate part of their company into two individual publically traded companies. • There has been a high number of down revisions in the past 4 weeks and a very low number of up revisions for the company. • Overall I just found too much uncertainty and bearish sentiment on Ingersoll-Rand for me to be comfortable with recommending a buy for the CIF. 	<p><u>Summary</u> Provide brief summary of your analysis in each section that follows</p> <p><u>Company Profile:</u> Ingersoll-Rand is a diversified global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency.</p> <p><u>Fundamental Valuation:</u> With a 2 year above average growth period the implied price came out to be 25.12. This makes IR seem highly overvalued but the high beta of the stock skewed my results.</p> <p><u>Relative Valuation:</u> Relative to its competitors, Ingersoll-Rand is pretty well in line with all of them. Forward P/E and PEG seemed to give me numbers closest to the current trading price of IR</p> <p><u>Revenue and Earnings Estimates:</u> IR had consistently beat earnings estimates and has been up and down as far as revenues go. There have been significant down revisions over the past 4 weeks showing bearish sentiment for the stock.</p> <p><u>Analyst Recommendations:</u> With a mean rating of 2.40, analysts seem bearish on the stock. Most analysts are saying hold at the moment, which is pretty common.</p> <p><u>Institutional Ownership:</u> Most of this information was not available but overall the number of net buyers has gone down which is another bearish indication.</p> <p><u>Short Interest:</u> Short interest is very low right now compared to historic numbers and compared to competitors. This shows very bullish sentiment from investors.</p> <p><u>Stock Price Chart:</u> Ingersoll-Rand has been outperforming the S&P and competitors in the past year and is outperforming the market and the sector for the past 3 months.</p>
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Section (B) Company Profile (two pages maximum)

Company Summary

Ingersoll-Rand (IR) was founded in 1871. The company was started when Ingersoll-Sergeant Drill Company merged with Rand Drill Company to form Ingersoll-Rand. Their corporate headquarters is located in Dublin, Ireland and is one of the few companies in the S&P 500 with a corporate headquarters located outside the U.S.

Ingersoll-Rand plc (IR) is an Irish public limited company. The company is a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. It operates in a couple different business segments. These segments include Climate Solutions, Residential Solutions, Industrial Technologies and Security Technologies. Each segment has strong brand name and a leading position in their respective markets. The company generates revenue primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products. They sell well recognized, premium brands such as Club Car, Ingersoll-Rand, Schlage, Thermo King, and Trane.

Business Model, Competition, Environment and Strategy

Ingersoll-Rand operates in a highly competitive market. Due to the diversity of the products and services and the variety of markets, IR encounters a wide variety of competitors that vary by product line and services. These competitors are not only U.S. based either, 40% of sales from IR are outside the U.S. Also Ingersoll-Rand does not have one single buyer or company that accounts for more than 10% of their revenues so losing a customer will not bring the companies revenues or earnings down a great deal.

Ingersoll-Rand distributes its products a number of ways. U.S sales are made through branch sales offices and through distributors, dealers and large retailers across the country. Non-U.S. sales are made through numerous subsidiary sales and service companies with a supporting chain of distributors throughout the world.

Demand for certain segments of IR's products and services are influenced by weather conditions. For instance sales have historically been higher in the second and third quarters of the year in northern hemisphere markets such as the U.S., summer is the peak season for sales of air conditioning systems and services. Unexpected cool trends or unseasonably warm trends during the summer months could negatively or positively certain segments of the business and results of overall operations.

On September 30, 2011, IR-Ireland completed the transaction to sell 60% in the Hussmann business. On December 30, 2011, it completed the divestiture of its security installation and service business, which was sold under the Integrated Systems and Services brand in the United States and Canada, to Kratos Public Safety & Security Solutions, Inc. (Reuters).

In December 2012 the Board of Directors announced a plan to spin off the companies commercial and residential security businesses. This separation will result in two standalone companies, Ingersoll-Rand and the New Security Company. The spin off is expected to be completed prior to the end of 2013, however this completion depends on many conditions and regulations.

Revenue and Earnings History

Revenue and earnings per share history was not available on Reuters but I found these numbers on Morningstar Direct.

	TTM	2012-12	2012-09	2012-06	2012-03
Revenues	14,035	3,470	3,593	3,821	3,151
Earnings	3.35	0.79	1.05	1.18	0.32
2011-12	2011-09	2011-06	2011-03	2010-12	2010-09
	3,454	3,929	3,892	3,138	3,712
	0.79	0.26	0.28	-0.23	0.65
					0.72

As far as revenues go, Ingersoll-Rand hasn't seen any kind of steady increase or decrease over the past couple of years. Their revenue numbers are very consistent with no outliers. One thing to mention is that their revenues are slightly higher in the second and third quarters. As I said in the company profile, this is due to the warm weather during the summer. 60% of revenue comes from the United States and during the summer months in the U.S. more people are buying air conditioners and other products that Ingersoll-Rand produces and sells, giving them higher profits in these months.

As for earnings per share, these numbers have bounced around more than the revenue numbers. During the first quarter of 2011, IR actually had negative earnings per share. I'm not sure exactly why their earnings were so low during that quarter but they bounced back after. It appears that this past year the earnings per share number have been a little more consistent than in the past. As with revenues, their EPS was highest during the second and third quarters of this past fiscal year. I believe Ingersoll-Rand has the stability to maintain their revenue and EPS numbers in the near future.

Section (C) Fundamental Valuation (EBO)

IR	PARAMETERS	FY1	FY2	Ltg									
	EPS Forecasts	3.61	4.09	10.93%	Model 1: 12-year forecasting horizon (T=12), and a 7-year growth period.								
	Book value/share (last fye)	24.02											
	Discount Rate	14.91%											
	Dividend Payout Ratio (POR)	20.28%											
	Next Fisc Year end	2013											
	Current Fisc Mth (1 to 12)	2			Please download and save this template to your own storage device You only need to input values to cells highlighted in "yellow" The rest of the spreadsheet is calculated automatically Please read "Guidelines_for_FundamentalValuation_ProfLee_Spreadsheet" file carefully								
	Target ROE (industry avg.)	11.56%											
Year		2013*	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Long-term EPS Growth Rate (Ltg)			0.1093	0.1093	0.1093	0.1093	0.1093					
	Forecasted EPS	3.61	4.09	4.54	5.03	5.58	6.19	6.87					
	Beg. of year BV/Shr	24.020	26.898	30.158	33.775	37.788	42.238	47.176					
	Implied ROE		0.152	0.150	0.149	0.148	0.147	0.146					
ROE	(Beg. ROE, from EPS forecasts)	0.150	0.152	0.150	0.149	0.148	0.147	0.146	0.140	0.134	0.128	0.122	0.116
Abnormal ROE	(ROE-k)	0.001	0.003	0.001	0.000	-0.001	-0.002	-0.003	-0.009	-0.015	-0.021	-0.027	-0.034
growth rate for B	(1-POR)*(ROEt-1)	0.000	0.120	0.121	0.120	0.119	0.118	0.117	0.116	0.111	0.107	0.102	0.097
Compounded growth		1.000	1.120	1.256	1.406	1.573	1.758	1.964	2.192	2.436	2.696	2.970	3.258
growth*AROE		0.001	0.003	0.002	0.000	-0.002	-0.004	-0.007	-0.021	-0.038	-0.058	-0.082	-0.109
required rate (k)	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.149
Compound discount rate		1.149	1.320	1.517	1.744	2.003	2.302	2.645	3.040	3.493	4.014	4.612	5.300
div. payout rate (k)	0.203												
Add to P/B	PV(growth*AROE)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02
Cum P/B		1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.98	0.97	0.95	0.93
Add: Perpetuity													
beyond current yr	(Assume this yr's AROE forever)	0.01	0.02	0.01	0.00	-0.01	-0.01	-0.02	-0.05	-0.07	-0.10	-0.12	-0.14
Total P/B	(P/B if we stop est. this period)	1.01	1.02	1.01	1.00	1.00	0.99	0.98	0.95	0.91	0.87	0.83	0.79
Implied price		24.81	25.12	24.91	24.72	24.53	24.35	24.17	23.30	22.38	21.42	20.45	19.46
Check:													
Beg. BV/Shr		24.02	26.90	30.16	33.78	37.79	42.24	47.18	52.65	58.51	64.75	71.33	78.25
Implied EPS		3.61	4.09	4.54	5.03	5.58	6.19	6.87	7.35	7.82	8.26	8.67	9.05
Implied EPS growth			0.133	0.109	0.109	0.109	0.109	0.109	0.070	0.064	0.057	0.050	0.043

Inputs (provide below input values used in your analysis)

EPS forecasts (FY1 & FY2): _____ 3.61 & 4.09 _____
Long-term growth rate: _____ 11.56% _____
Book value /share (along with book value and number of shares outstanding):
 Book value: _____ 7.229 Billion _____
 # of shares outstanding: _____ 296.32 Million _____
 Book value / share: _____ 24.02 _____
Dividend payout ratio: _____ 20.28% _____
Next fiscal year end: _____ December 2013 _____
Current fiscal month: _____ 2 _____
Target ROE: _____ 11.56% _____

Output

Above normal growth period chosen: _____ 2014 _____
EBO valuation (Implied price from the spreadsheet): _____ 25.12 _____

Sensitivity Analysis

EBO valuation would be (you can include more than one scenario in each of the following):

_____ 24.53 _____ if changing above normal growth period to _____ 2017 _____
_____ 25.12 _____ if changing growth rate from mean (consensus) to the highest estimate
_____ 16.00% _____
_____ 25.12 _____ if changing growth rate from mean (consensus) to the lowest estimate
_____ 5.00% _____
_____ 48.66 _____ if changing discount rate to _____ 8% _____
_____ 25.12 _____ if changing target ROE to _____ 20% _____

Comparing these values to the current stock price of Ingersoll-Rand, this evaluation makes the stock seem grossly overvalued. However, this is due to the high beta of the stock. With a beta of 1.77 it made my discount rate 14.91% which is extremely high. As you can see if I change the discount rate down to 8% the EBO evaluation would give me an implied price of 48.66 instead of 25.12. This number is still below the current trading price but using this discount rate makes the stock not seem so overvalued.

Section (D) Relative Valuation

IR													
Mean FY2													
	Ticker	Name	Mkt Cap	Current Price	Earnings Estimate (next fiscal year)	Forward P/E	Mean LT Growth Rate	PEG	P/B (MRQ)	ROE 5 yr ave	Value Ratio	P/S TTM	P/CF TTM
1	ALSN	Allison Transmission Holdings	\$ 4,341.98	\$ 22.79	\$ 1.50	15.19	15.70%	0.97	3.27	24.49%	0.13	2.00	5.42
2	BWA	BorgWarner Inc.	\$ 8,750.49	\$ 74.38	\$ 6.32	11.77	13.87%	0.85	2.87	12.30%	0.23	1.22	10.8
3	JCI	Johnson Controls Inc.	\$ 21,662.28	\$ 31.31	\$ 3.08	10.17	11.57%	0.88	1.83	9.20%	0.20	0.52	10.06
4	GE	General Electric Co.	\$ 243,911.30	\$ 22.58	\$ 1.84	12.27	11.00%	1.12	1.98	11.88%	0.17	1.66	6.84
IR		Ingersoll-Rand PLC	\$ 15,669.26	\$ 53.05	\$ 4.09	12.97	10.93%	1.19	2.19	0.40%	5.48	1.12	10.97
		Implied Price based on:				P/E		PEG	P/B		Value	P/S	P/CF
1	ALSN	Allison Transmission Holdings				\$62.14		\$43.26	\$79.21		\$1.29	\$94.73	\$26.21
2	BWA	BorgWarner Inc.				\$48.14		\$37.93	\$69.52		\$2.26	\$57.79	\$52.23
3	JCI	Johnson Controls Inc.				\$41.58		\$39.28	\$44.33		\$1.93	\$24.63	\$48.65
4	GE	General Electric Co.				\$50.19		\$49.87	\$47.96		\$1.61	\$78.63	\$33.08
		High				\$62.14		\$49.87	\$79.21		\$2.26	\$94.73	\$52.23
		Low				\$41.58		\$37.93	\$44.33		\$1.29	\$24.63	\$26.21
		Median				\$49.16		\$41.27	\$58.74		\$1.77	\$68.21	\$40.86

From the top panel

The four competitors that I chose were General Electric (GE), BorgWarner Inc. (BWA), Allison Transmission Holdings (ALSN) and Johnson Controls Inc. I chose General Electric because they are the largest company in the industrials sector, so I thought this would be a good comparison even if they don't produce exactly the same products. Allison Transmission Holdings and BorgWarner were listed as industry peers on Morningstar so I figured those would be adequate companies to compare Ingersoll-Rand to. And finally I chose Johnson Controls, this company manufactures, installs and services automatic temperature regulation systems for businesses. Since IR produces similar products I thought Johnson Controls would be another key competitor to look at.

For forward P/E all of the companies' metrics were between about 10 and 15, yielding no outliers. Each of the companies' PEG was very similar as well, all landing within .30 of each other. For P/B and P/S the numbers are fairly similar as well. I guess if I had to comment on these metrics Johnson Controls seem a bit cheaper than the other stocks, with a P/B of 1.83 and a P/S of 0.52. For P/CF Ingersoll-Rand was the most expensive with a P/CF of 10.97 compared to a couple of their competitors who's P/CF was down closer to 5 or 6. I don't think this means Ingersoll-Rand is over valued or expensive right now though since that is the only metric the IR yielded the "most expensive" number.

From the bottom panel

Forward P/E: as I said from the top panel, the forward P/E for each of the five companies was all fairly similar. The competitor's numbers yielded a low implied price of \$41.58, a high of \$62.14 and a mean of \$49.16. These numbers are not surprising as the current price is about \$52, telling me that IR is well priced according to P/E

PEG: The PEG of each company was about the same as well. These numbers yielded a low implied price of \$37.93 and a high of \$49.87. These numbers are a little less than current trading price for IR but the stock is pretty much right at its 52-week high right now so these numbers do not surprise me. IR's 52-week low is just over \$37 so the low implied price of \$37.93 is right where I would expect it to be.

P/B: The implied prices that came from P/B ratios of competitors was a little more skewed than from Forward P/E and PEG. The low price was \$44.33 and the high was \$79.21. The mean came out to be \$58.74 which isn't too much higher than the current price so even though these numbers are more skewed than others, I would still not consider them outliers.

P/S: The price to sales for each of the companies differed a little giving a couple outliers for implied prices. The P/S of Johnson Controls is only 0.52 yielding an implied price of \$24.63, which is quite a bit lower than Ingersoll-Rand's 52-week low. On the other end of the spectrum, Allison Transmission Holdings has a P/S of 2.00, yielding an implied price of \$94.73, which is almost double the current price. This leads me to believe P/S is not the best metric to use when comparing these companies.

P/CF: Price to cash flow varied a bit between competitors as well, ranging from 5.42 to 10.80. The low implied price came out to be \$26.21 and the high was \$52.23. The high end of the implied prices is right about where Ingersoll-Rand is trading at right now, but the low is well below the stocks 52-week low leading me to believe price to cash flow isn't the best metric to use either.

Section (E) Revenue and Earnings Estimates

HISTORICAL SURPRISES

Sales and Profit Figures in US Dollar (USD)

Earnings and Dividend Figures in US Dollar (USD)

Estimates vs Actual	Estimate	Actual	Difference	Surprise %
SALES (in millions)				
Quarter Ending Dec-12	3,464.54	3,470.20	5.66	0.16
Quarter Ending Sep-12	3,646.96	3,592.80	54.16	1.48
Quarter Ending Jun-12	3,882.74	3,821.30	61.44	1.58
Quarter Ending Mar-12	3,036.21	3,150.70	114.49	3.77
Quarter Ending Dec-11	3,584.73	3,506.70	78.03	2.18
Earnings (per share)				
Quarter Ending Dec-12	0.70	0.76	0.06	8.73
Quarter Ending Sep-12	0.98	1.07	0.09	9.18
Quarter Ending Jun-12	0.91	1.00	0.09	10.28
Quarter Ending Mar-12	0.25	0.31	0.06	22.38
Quarter Ending Dec-11	0.66	0.76	0.10	14.41

For sales Ingersoll-Rand does not usually surprise the market too much. The estimates are usually pretty close to the actual results. Two of the last five quarters IR has positively surprised the market in sales, but the other three quarters they could not beat estimates. For earnings per share Ingersoll-Rand has been able to beat estimates in all of the past 5 quarters, which is a bullish sign. Estimates have been beaten by as much as 22%, and IR has beat estimates by more than 8% every quarter. I looked at the stock price chart for the past year and I couldn't see any significant reactions from investors after the historical surprises were announced. Overall the price has been rising pretty consistently over the past year so I believe investors see these positive surprises as a good thing and the stock price should continue to climb if estimates continue to be beat.

Copy/paste the “Consensus Estimates Analysis” Table from *Reuters.com*, “Analysts” tab (include both revenue and earnings)

CONSENSUS ESTIMATES ANALYSIS

Sales and Profit Figures in US Dollar (USD)
Earnings and Dividend Figures in US Dollar (USD)

	# of Estimates	Mean	High	Low	1 Year Ago
SALES (in millions)					
Quarter Ending Mar-13	14	3,161.93	3,230.00	3,075.00	3,110.00
Quarter Ending Jun-13	14	3,977.04	4,150.70	3,856.00	3,980.00
Year Ending Dec-13	17	14,540.60	14,687.70	14,375.00	15,229.80
Year Ending Dec-14	15	15,058.40	15,578.00	13,055.00	16,061.80
Earnings (per share)					
Quarter Ending Mar-13	19	0.40	0.46	0.37	0.50
Quarter Ending Jun-13	18	1.12	1.25	1.00	1.15
Year Ending Dec-13	23	3.61	3.74	3.55	3.65
Year Ending Dec-14	21	4.09	4.50	3.25	4.25
LT Growth Rate (%)	4	10.93	16.00	5.00	10.86

Sales: For the quarter ending March 2013 the low estimate is 2.75% below the mean and the high estimate is 2.15% above the mean. For the quarter ending in June the low estimate is 3.04% below the mean and the high estimate is 4.37% above the mean. For the year ending December 2013 the low estimate is 1.14% below the mean and the high estimate is 1.01% above the mean. For the year ending December 2014 the low estimate is 13.30% below the mean and the high estimate is 3.45% above the mean.

Earnings: For the quarter ending March 2013 the low estimate is 7.5% below the mean and the high estimate is 15% above the mean. For the quarter ending in June 2013 the low estimate is 10.71% below the mean and the high estimate is 11.61% above the mean. For the year ending December 2013 the low estimate is 1.66% below the mean and the high estimate is 3.60% above the mean. For the year ending December 2014 the low estimate is 20.54% below the mean and the high estimate is 10.02% above the mean.

Overall the estimates for earnings have a much broader range and there were far less analysts who gave LT growth rate estimates compared to how many gave sales and earnings estimates.

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CONSENSUS ESTIMATES TREND

Sales and Profit Figures in US Dollar (USD)
Earnings and Dividend Figures in US Dollar (USD)

	Current	1 Week Ago	1 Month Ago	2 Month Ago	1 Year Ago
SALES (in millions)					
Quarter Ending Mar-13	3,161.93	3,161.93	3,176.34	3,157.42	3,110.00
Quarter Ending Jun-13	3,977.04	3,977.04	3,957.64	3,943.85	3,980.00
Year Ending Dec-13	14,540.60	14,523.50	14,589.50	14,584.80	15,229.80
Year Ending Dec-14	15,058.40	15,021.30	14,943.10	14,937.20	16,061.80
Earnings (per share)					
Quarter Ending Mar-13	0.40	0.40	0.47	0.48	0.50
Quarter Ending Jun-13	1.12	1.12	1.12	1.13	1.15
Quarter Ending Dec-13	3.61	3.61	3.59	3.60	3.65
Quarter Ending Dec-14	4.09	4.09	4.06	4.11	4.25

For sales the estimates have overall been trending down. Apparently analysts had more confidence in Ingersoll-Rand a year ago than today. For the years ending December 2013 and 2014 the estimates have gone down almost a million dollars, which is pretty significant. For the upcoming two quarters though estimates have not gone down too significantly, actually barely down for the quarter ending in June. I believe analysts have some confidence in IR to produce a good amount of sales in the upcoming months.

For earnings per share, both the upcoming quarters and years the estimates have gone down. There is a pretty significant drop in EPS estimates for the upcoming quarter, one year ago EPS was estimated to be .50 and it is now .40, this is a bearish sign from analysts but IR has been known to beat EPS estimates in the past so I believe these numbers will be beaten.

Copy/paste the “Estimates Revisions Summary” Table from *Reuters.com*, “Analysts” tab (include both revenue and earnings)

ESTIMATES REVISIONS SUMMARY

Number Of Revisions:	Last Week		Last 4 Weeks	
	Up	Down	Up	Down
Revenue				
Quarter Ending Mar-13	0	0	3	4
Quarter Ending Jun-13	0	0	2	3
Year Ending Dec-13	1	0	5	11
Year Ending Dec-14	0	0	3	5
Earnings				
Quarter Ending Mar-13	0	1	0	11
Quarter Ending Jun-13	0	0	5	3
Year Ending Dec-13	0	0	8	3
Year Ending Dec-14	1	0	8	2

Revenues: Over the past week there haven’t been any revisions except one up revision for the year ending December 2013. For the last 4 weeks there has been overall more down revisions than up revisions. The number of down and up revisions has been pretty similar except for the upcoming year-end, which had 11 down revisions and only 5 up revisions. This shows analysts are bearish for this upcoming year as far as revenues go.

Earnings: As with revenues not much has been changed over the past week but over the past 4 weeks there has been quite a bit of down and up revisions. For the upcoming quarter there has been 11 down revisions and no up revisions, also showing bearish sentiment. As for the upcoming years there has been more up revisions than down revisions showing bullish sentiment as far as earnings goes.

I believe Ingersoll-Rand has the ability to beat estimates according to how they have done in the past. Having beat earnings estimates in all of the last 5 quarters I see no reason why it won’t continue to happen. I think analysts do not give IR enough credit and they are historically too bearish on the stock. I believe investors think IR can beat estimates as well; the stock price has been pushing its 52-week high for quite a while and has consistently been increasing for the past few months.

Section (F) Analysts' Recommendations

Copy/paste the "Analyst Recommendations and Revisions" Table from *Reuters.com*, "Analysts" tab. NOTE: Make sure you copy the entire table including the "Mean Rating" at the bottom of the table.

ANALYST RECOMMENDATIONS AND REVISIONS

1-5 Linear Scale	Current	1 Month Ago	2 Month Ago	3 Month Ago
(1) BUY	6	6	6	6
(2) OUTPERFORM	2	2	2	2
(3) HOLD	11	11	11	13
(4) UNDERPERFORM	0	0	0	0
(5) SELL	1	1	1	1
No Opinion	0	0	0	0
Mean Rating	2.40	2.40	2.40	2.45

Overall these recommendations seem pretty bearish to me. Analysts are known for giving higher rating to a stock than it should deserve and the mean rating is still at 2.40, which is fairly high. Currently there is 1 sell recommendation, 6 buys, 2 outperform and 11 hold. This seems pretty consistent with recommendations for stocks I have looked at in the past, with most analysts saying hold. Compared to 3 months ago, 2 less people are saying hold and the rest of the recommendations have stayed consistent. The mean rating has dropped from 2.45 to 2.40, which shows a slightly more bullish outlook for Ingersoll-Rand currently as opposed to 3 months ago. I think these recommendations make sense because the stock is trading high right now so not many people are saying buy, but at the same time it has been consistently going up so many analysts recommend investors to hold right now so they can possibly see some more profits in the near future.

On CNBC.com Ingersoll-Rand was not in the upgrade or downgrade revision list any day going back to January 1st.

Section (G) Institutional Ownership

IR				
Ownership Activity	# of Holders	% Beg. Holders	Shares	% Shares
Shares Outstanding			296,299,808	100.00%
# of Holders/Tot Shares Held	640	103.90%	242,788,063	81.94%
# New Positions	72	11.69%		
# Closed Positions	48	7.79%		
# Increased Positions	249	40.42%		
# Decreased Positions	288	46.75%		
Beg. Total Inst. Positions	616	100.00%	249,974,464	84.37%
# Net Buyers/3 Mo. Net Chg	-39	46.37%	-7,186,401	-2.43%
Ownership Information	% Outstanding			
Top 10 Institutions % Ownership	NA			
Mutual Fund % Ownership	NA			
Float %	NA			
> 5% Ownership				
Holder Name	% Outstanding	Report Date		

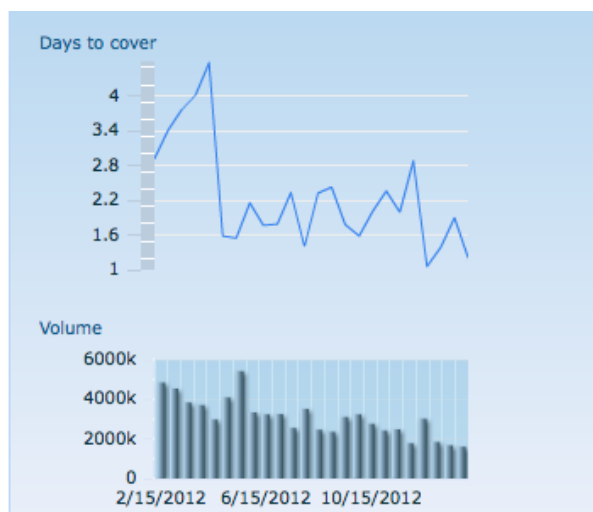
Combine information provided in all three sections to discuss whether (1) institutions, on net basis, have been increasing or decreasing ownership and how significant, (2) the stock has sizable institution interests and support, (3) the extent of the (> 5%) owners, and (4) this could be a bullish or bearish indication of future stock price movement .

Currently the number of net buyers for Ingersoll-Rand is -39 with 72 new positions, 48 closed positions, 249 increased positions and 288 decreased positions. It is a bullish sign that there have been more new positions than closed but at the same time the high number of decreased positions is a bearish sign for the stock. On the MSN website for institutional information and >5% ownership information was not available. For all of the information it simply said NA so I am not sure if there are any institutions that hold a large percentage of shares in Ingersoll-Rand. If there is not, which I assume there isn't this is a bearish sign because large institutions are not heavily invested in the company showing they may not have faith that the company can continue to do well.

Section (H) Short Interest (two pages)

From <http://www.nasdaq.com/> (NASDAQ's website)

Settlement Date	Short Interest	Avg Daily Share Volume	Days To Cover
1/31/2013	1,944,974	1,603,964	1.212605
1/15/2013	3,158,325	1,662,535	1.899704
12/31/2012	2,572,684	1,841,746	1.396872
12/14/2012	3,198,106	3,020,578	1.058773
11/30/2012	5,115,212	1,772,970	2.885109
11/15/2012	4,939,868	2,473,213	1.997348
10/31/2012	5,712,749	2,414,706	2.365816
10/15/2012	5,543,256	2,754,024	2.012784
9/28/2012	5,106,975	3,224,931	1.583592
9/14/2012	5,522,304	3,097,152	1.783026
8/31/2012	5,700,305	2,348,144	2.427579
8/15/2012	5,741,889	2,470,979	2.323730
7/31/2012	4,940,355	3,521,084	1.403078
7/13/2012	5,979,194	2,557,289	2.338099
6/29/2012	5,808,448	3,247,395	1.788648
6/15/2012	5,749,206	3,242,167	1.773260
5/31/2012	7,196,198	3,330,362	2.160786
5/15/2012	8,407,741	5,425,439	1.549689
4/30/2012	6,511,663	4,094,059	1.590515
4/13/2012	13,667,824	2,985,151	4.578604
3/30/2012	14,876,152	3,701,162	4.019319
3/15/2012	14,466,719	3,840,474	3.766910
2/29/2012	15,475,639	4,538,500	3.409858



Short Interest for Johnson Controls

Settlement Date	Short Interest	Avg Daily Share Volume	Days To Cover
1/31/2013	9,912,381	5,393,399	1.837873
1/15/2013	11,359,435	4,383,731	2.591271
12/31/2012	14,653,773	4,307,462	3.401951
12/14/2012	17,520,904	3,643,738	4.808497
11/30/2012	18,186,721	4,446,551	4.090074
11/15/2012	17,268,103	4,468,041	3.864804
10/31/2012	16,188,072	5,000,873	3.237049
10/15/2012	16,643,417	4,917,934	3.384229
9/28/2012	17,324,565	4,235,999	4.089842
9/14/2012	17,665,237	5,013,344	3.523644
8/31/2012	17,956,814	4,384,286	4.095721
8/15/2012	16,843,566	5,824,930	2.891634
7/31/2012	17,318,784	8,764,237	1.976074
7/13/2012	18,122,751	4,487,255	4.038717
6/29/2012	16,738,554	4,865,950	3.439935
6/15/2012	17,665,021	5,204,430	3.394228
5/31/2012	16,872,956	5,013,500	3.365504
5/15/2012	13,648,092	4,947,576	2.758541
4/30/2012	10,779,814	5,547,210	1.943286
4/13/2012	10,560,455	4,915,961	2.148197
3/30/2012	9,822,240	4,084,134	2.404975
3/15/2012	11,225,424	5,327,511	2.107067
2/29/2012	12,726,679	6,347,693	2.004930
2/15/2012	11,666,058	5,489,871	2.125015

Short Interest for Allison Transmission

Settlement Date	Short Interest	Avg Daily Share Volume	Days To Cover
1/31/2013	4,643,885	446,853	10.392422
1/15/2013	5,743,849	508,883	11.287170
12/31/2012	6,775,382	355,513	19.058043
12/14/2012	7,301,199	374,941	19.472928
11/30/2012	8,210,039	646,984	12.689709
11/15/2012	9,523,095	413,715	23.018491
10/31/2012	10,692,702	387,046	27.626437
10/15/2012	10,618,808	412,792	25.724355
9/28/2012	9,622,750	426,926	22.539620
9/14/2012	8,337,049	536,578	15.537441
8/31/2012	8,081,839	240,961	33.540029
8/15/2012	7,763,421	349,665	22.202454
7/31/2012	7,307,502	350,748	20.834052
7/13/2012	6,348,726	421,472	15.063221
6/29/2012	5,684,537	594,869	9.555948
6/15/2012	5,060,956	509,498	9.933221
5/31/2012	3,869,960	375,570	10.304231
5/15/2012	3,529,565	368,592	9.575805
4/30/2012	2,597,339	665,000	3.905773
4/13/2012	1,292,243	375,289	3.443328
3/30/2012	1,112,632	619,454	1.796150

From <http://finance.yahoo.com/>

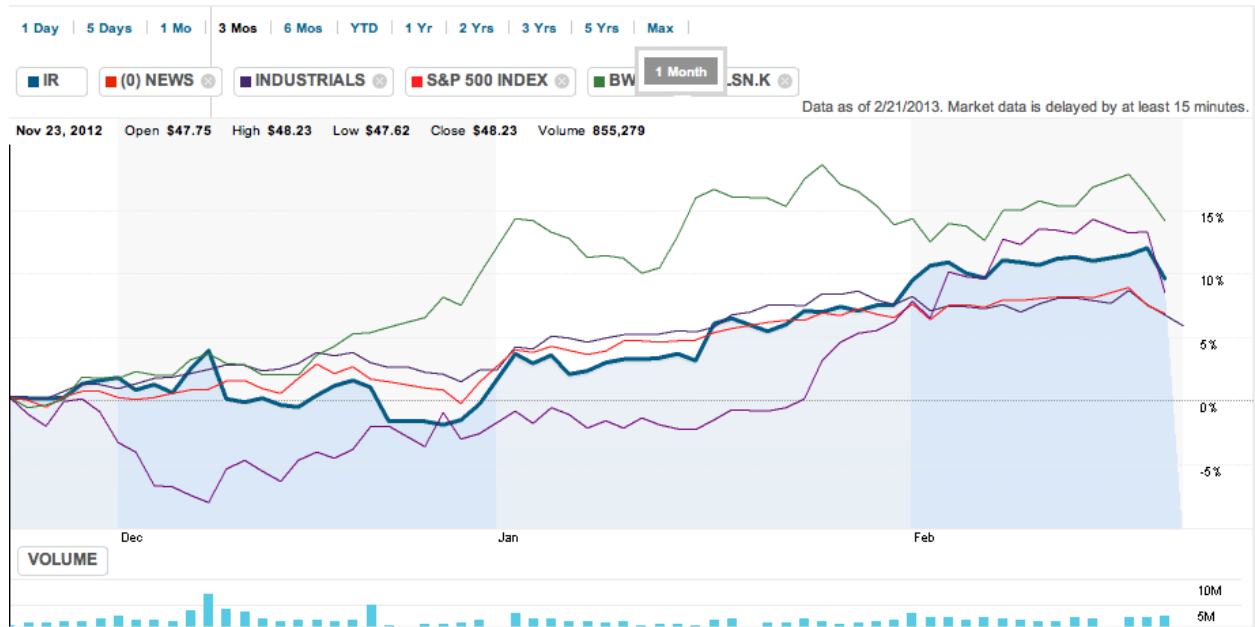
Avg Vol (3 month)	Avg Vol (10 day)	Shares Outstanding	Float
2,026,170	2,181,690	296.32 Million	295.68 Million
Shares Short (Most recent date)	Short Ratio (Most recent date)	Short % of Float (Most recent date)	Shares Short (2 weeks prior)
1.94 Million	1.20	.70%	3.16 Million

Based on the short interest statistics and its recent trend, how is the market sentiment on the stock? Has the sentiment turned more bullish or bearish over the last year? How about in more recent month and why?

Based on the current short interest, the market sentiment is very bullish. This fact is even more prominent when you look at the short interest over the past year. One year ago there was over 15 million shares shorted and there are currently just below 2 million shares shorted. This means that far less investors think the stock is going to drop compared one year ago. I looked at short interest for a couple competitors as well and they have much higher shares shorted and much higher days to cover. The days to cover currently for Ingersoll-Rand is 1.213, meaning it would only take a little over a day for the number of shares shorted to be covered. Short interest from about June through November was hovering around 4 to 5 million and in the most recent couple of months that number has dropped pretty significantly. Even compared to two weeks ago, the number of shares short was slightly over 3 million and in just two weeks dropped to under 2 million. I am not exactly sure why short interest is so low right now besides the obvious fact the investors are bullish so not as many of them are shorting the stock, overall a good thing for Ingersoll-Rand.

Section (I) Stock Charts

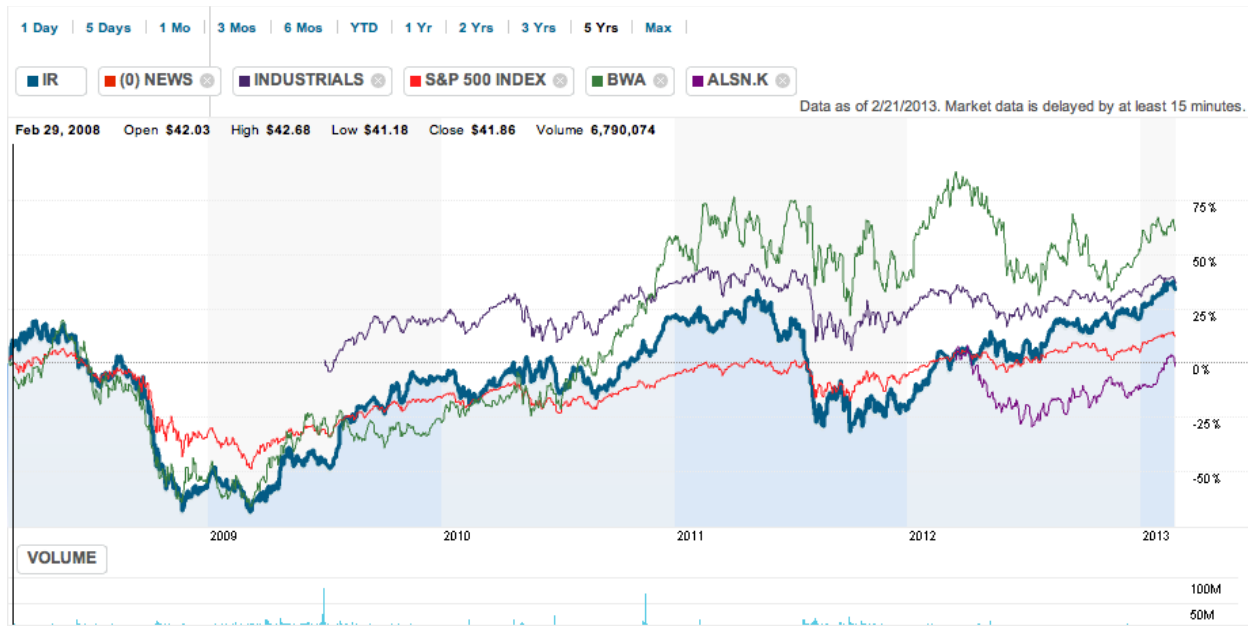
A three months price chart



A one-year price chart



A five-year price chart



Discuss what you observe from the stock charts. This should include comparing your stock to competitors, sector, and SP500 over the three different time horizons.

3 Month Chart: Over the past 3 months Ingersoll-Rand is up about 10%, outperforming both the S&P 500 and the Industrials sector. However they are underperforming two of their competitors that I included in the chart. Although they are underperforming these competitors it is still a good sign that IR is seen profits.

1-Year Chart: Over the past year Ingersoll-Rand has been performing very well. Their stock price is up about 30% for this time period. This 30% increase brings IR to outperform its sector, the market and both of its competitors that I included on the chart.

5-Year Chart: Over the past five years Ingersoll-Rand has seen an increase of about 40% which looks very good. They obviously saw a dip during the recession but with the market on the rise IR has outperformed the S&P 500 and is just about right in line with the Industrials sector.



From what I can tell on these charts everything looks good. There was a death cross on both charts but on the majority of the chart the lower day moving average is above the higher day average which is a good sign. The RSI charts are at about 50 right now, which is about normal. If the RSI goes up and approaches the 70 mark it might mean the stock is approaching overvaluation.

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