This 3DAdvisors Report Covers:	
✓	**Insider Trading**: Insider Trading Behavior
✓	**Accounting**: Quality of Earnings Issues
	Governance: Corporate Governance Issues
✓	**Fundamentals:** Analysis of fundamentals
	Deception: Deception detection analysis

Execs Insist Growth Will Continue But Act Otherwise FLIR Systems Inc. (NASDAQ:FLIR)

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Business Description

FLIR Systems Inc. designs, manufactures, and markets thermal imaging and infrared camera systems in the United States and internationally. The Company reported net revenue of $779.4 million in fiscal 2007 and net after-tax earnings of $136.7 million. As of 12/31/07, it employed 1,743 workers. It operates in three divisions: Thermography (33.5% of 2007 revenue), Commercial Vision Systems (17.4%), and Government Systems (49.1%). FLIR Systems offers its products through direct sales personnel, and a network of distributors and representatives. The Company was founded in 1978 and is headquartered in Wilsonville, Oregon.

Key Statistics

Sector:	Last Close:	Market Cap:	Avg Vol (3m):
Technology	**$26.44**	**$3.67B**	**1,935,690**
Industry:	**52 Wk Range:**	**Trailing P/E:**	**Shrs Out:**
Scientific & Technical Instruments	**$23.68-$45.49**	**22.70**	**138.92 M**
F/T Employees:	**FYE:**	**Forward P/E:**	**Short % of Float:**
1,743	**31-Dec**	**16.95**	**6.70%**

Summary of 3DAdvisors Findings for FLIR

- **Insider Trading:** Selling into declining prices contradicts positive guidance
- **Fundamentals:** Organic growth obfuscated by multiple acquisitions
- **Fundamentals:** Year-over-year impressive, but sequential growth is slowing
- **Accounting:** Margins exceed those of peers, but significant erosion is likely
- **Accounting:** Slowing backlog growth another sign overall growth is ebbing
- **Accounting:** Miscellaneous noteworthy items

Discussion of 3DAdvisors Findings for FLIR

With the coming transition to the new administration in the White House there has been little doubt that defense spending will be undergoing a great deal of scrutiny. Such expectations, combined with the great economic and financial uncertainty of the times, have clearly affected the shares of companies in the defense industry. Among those impacted is FLIR Systems Inc. as the Company's division serving government accounted for 55% of revenue in the 3Q08. The Company, however, also serves other markets with its suite of thermal imaging products and it is here where management's strategy to expand revenues is to develop new distribution channels (albeit at thinner margins than achieved in the core government segment) designed to increase its business with industrial/commercial customers in automotive, marine, airborne and security end markets. The strategy has played well in recent conference calls as analysts seem to buy into management's assertion that growth should remain intact in spite of the current economic turmoil and deepening recession.

The positive management-speak, however, stands in stark contrast to the trading profile of several key executives. After FLIR shares had fallen over 31% from their mid-summer highs, key members of management (read: division heads) sold significant chunks of their actionable holdings under the cover of 10b5-1 trading plans. Making the activity more interesting were comments by CEO **Earl Lewis** earlier this year, during the 1Q08 conference call, alluding to 10b5-1 sales to come in future periods and implying that the catalyst for these would be expiring options, a statement we found to be more misleading than factual.

Figure 1. FLIR Daily Closing Price, 11/01/07 through 12/14/08. Red shaded area is where 6 insiders sold 445,000 shares. Source: Reuters and FLIR SEC Filings.

Prompted to look further into the business due to the trading profile, it did not take long for us to realize that recent acquisitions of lower margin businesses, in the Company's commercial segments, mask a lack of organic growth in the non-defense business overall. Keep in mind that the Company's strategy to offset an anticipated slowdown in its government business is to develop new distribution channels, driving volume with lower priced product. In repeated choruses of management optimism or, perhaps, outright denial, key officers seemed to paint a picture of a Company that is virtually recession proof, citing year-over-year growth figures for all three of the major segments it serves (Government Systems, Thermography and Commercial Vision Systems). More careful examination reveals, however, that sequential growth is slowing in both Thermography and Commercial Vision Systems (CVS), the very segments which are supposed to insulate the Company from slowing growth in Government Systems. Vigorous backlog growth, highly touted by the Company, also seems to be slowing in the most recent period and has even declined in CVS.

Margin compression seems inevitable as the Company's cost structure is largely fixed and, if it is to remain competitive, must continue R&D expenditures at a high level even should sales slow. Time and again, however, management seems to be looking through a different set of glasses than the rest of us as it has steadfastly maintained guidance in the face of deepening economic gloom with the President of the Company's Thermography division predicting "continued growth" for the remainder of 2008 and into 2009. Ditto for the President of the Company's CVS division, who predicts "solid growth in CVS for the remainder of 2008 and 2009." Even the head of Government Systems division sees "significant opportunities to grow market share by continuing to invest in new products".[1]   This "build it and they will come" philosophy reverberates through most of management's disclosures involving forward strategy and culminates with FLIR guiding towards the high end of its guidance range for 2008.

But again, we wonder if management truly believes in its assertions of ongoing growth given recent insider stock sales way off the recent highs. It remains to be seen whether FLIR will be able to meet its growth targets with more sales at lower margins through new distribution channels as the reality of the economic environment they face unfolds in 2009. Management continues its efforts to talk up the stock, but it is pretty clear they are voting with their feet.

<u>Insider Trading: Selling heavily into declining prices contradicts positive guidance</u>

It is with considerable interest, if not amusement, that we noted CEO Carl Lewis' opening remarks during the Company's 1Q08 conference call [bolding is ours]:

> **"I'll remind everyone rather, that a number of other executives and I have entered into 10b5 stock trading plans over the past year. We've also established an insider trading policy designed to minimize the impact of insider activity on our investors….Six of our officers have options that will expire in February 2009 and you can expect to see sales from us due to this in the upcoming period."**

We've seen many reasons proffered for selling under 10b5 plans but those few who altruistically claim to have initiated them "to minimize the impact of insider activity on our investors" stand out in the crowd. The further notion that the primary reason for selling would possibly be the expiration of options only puts an exclamation point on the

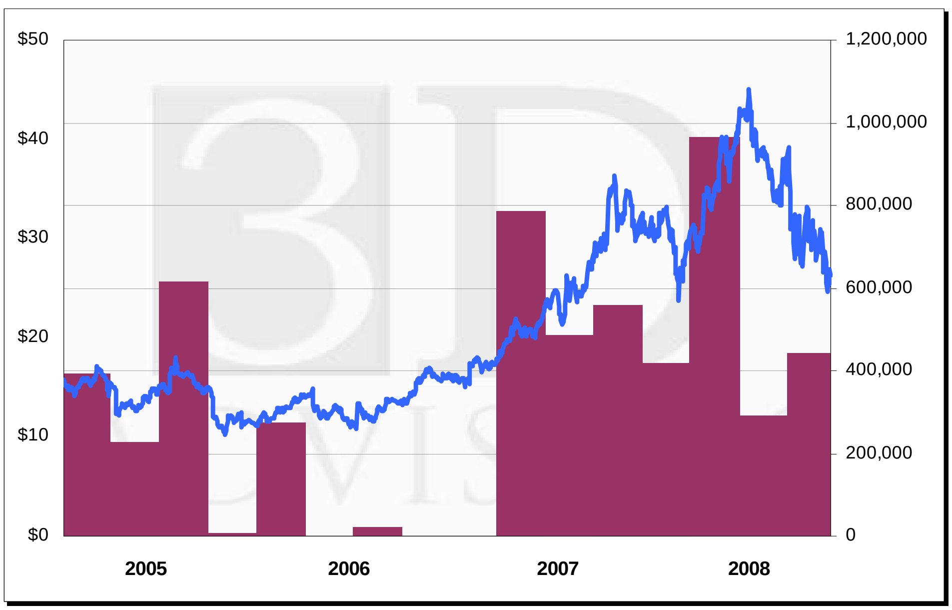
[1] Each of the quotes is from the 3Q08 conference call.

audacity of Lewis' Q1 comments. For the record, *there is no component inherent in the process of exercising expiring options that would ever require an insider to sell every share exercised for.* His comments would be valid if those selling had disposed of only the necessary amount of shares to cover the taxes and cost of the transaction. In virtually every case (with only the slightest exception) every share gained through option exercises this year was summarily sold. Additionally, the blanket statement cannot be made that those options exercised, then sold, were expiring.

But sell they have, the most recent being right after the 3Q08 conference call, in numbers that continued to significantly erode their actionable holdings, holdings that are not slated to be reloaded anytime soon through vesting of existing grants. So far this year, 12 Company insiders have sold a combined 2.1 million shares. Of this total 616,000 were from the expiring series cited by Lewis to be the main selling impetus.

We also note that during the current quarter the actual sales volume has picked up significantly (to date, 445,000 shares have been sold in the quarter), and for the first time in at least several years the quarter-to-quarter (3Q08-to-4Q08) pick up in sales has taken place into declining prices. Again, this significant shift relative to prior behavior is taking place as management insists its strategies will allow it to maintain its historical robust growth rates despite deteriorating economic conditions.

Figure 2. FLIR Daily Closing Price, 01/03/05 through 12/17/08 (Blue Line and Left Scale) and Quarterly Insider Sales, 1Q05 through 4Q08 (Red Bars and Right Scale). Source: Reuters and FLIR SEC Filings.



It also seems significant to us that with the DJ Defense Industry index down 34% since January, the only company where there has been a convergence of profit takers in the fourth quarter is FLIR. Included in this group are the two highest ranking officers, Chairman, President and Chief Executive Earl Lewis and Chief Financial Officer **Stephen Bailey**. It has been over a year since either officer accepted prices this low for his shares. And while their recent sales did not erase a significant percentage of their holdings, their persistent profit taking certainly has. The table below shows the year-over-year holdings erosion for the management hierarchy.

Insider	Position	01/01/06	01/01/07	01/01/08	11/18/08
E. Lewis	CB, Pres, CEO	4,150,714	4,260,038	3,522,110	2,640,625
S. Bailey	CFO	909,402	961,748	928,406	626,183
A. Teich	Div. Pres.	821,524	612,216	553,134	535,282
A. Almerfors	Div. Pres.	664,960	713,960	504,693	303,926
W. Sundermeier	Div. Pres.	466,450	518,318	458,954	117,597
J. Hart	Director	124,000	126,000	86,000	41,200

The figures above clearly reveal a two-year downtrend and the degradation is not insignificant. While the key operating officers still have plenty of actionable shares and options at their disposal, their 2007 and 2008 sales have erased a substantial amount of their exposure to the shares, drawing down their holdings to the lowest levels in years. If they continue at the current selling pace, it is feasible their positions will be cut in half by the end of next year. As we have discussed in so many reports before, we closely analyze the amount of derivative equity insiders have scheduled to become actionable downstream in order to put their holdings diversification in context. In this case, as the table below indicates, they continue to sell between two and four times the amount of shares that will be replaced the following year. The reduced ownership results from this exaggerated holdings burn rate which will only be compounded as the holdings levels decrease further. The new development of insider selling at steeply discounted prices obviously begs the question whether their intent for retaining shares and/or restoring their holdings has waned.

Insider	Shares Sold In 2008	Options/Shares Vesting in 2009
E. Lewis	858,742	258,096
S. Bailey	298,472	91,074
A. Almerfors	200,000	89,830
W. Sundermeier	352,944	89,130
J. Hart	58,000	833

- **Stephen Bailey (59)*** – Senior V.P. of Finance, Chief Financial Officer. This quarter marks the first in Bailey's trading history that he sold shares at lower prices than his prior activity. After selling 103,000 shares in the third quarter at prices as high as $39, Bailey surfaced less than two weeks after the Q3 earnings release with a 75,000 share sale at $31, which represents a 16% decrease to his last exit price. The shares sold were acquired when he exercised options on the same day that had three years remaining before expiration. While his trading thus far does not exceed any prior quarterly selling volume records, it was his largest single session sale in nearly four years. Bailey has now sold 300,000 shares on the year which **accounted for 35% of his actionable holdings**. His holdings are now at their lowest level since he first joined the Company back in 2000, and with just 91,000 options and shares scheduled to vest in 2009 (see Appendix A), the likelihood of his rebuilding his holdings anytime soon seems quite low.

- **Arne Almerfors (62)*** – Executive V.P., President of Thermography. Almerfors sold 40,000 shares on 11/06/08 at $31 followed by another 40,000 on 11/13/08 at $27, which are the lowest prices he has accepted for his stock in seven quarters. This also marks an increase in his quarterly selling volume (he sold 60,000 shares in each of the last two quarters), but it resonates more with us that his November trades were executed at prices 42% below those associated with his August dispositions. His 2008 sales, which collectively covered 200,000 shares, **erased 40% of his holdings**. Looking back even further, his ownership is now down more than 50% in the past two years and the 89,000 options and shares that will become actionable throughout 2009 will replace only the equity he diversified between July and November (see Appendix A).

- **William Sundermeier (44)*** – President of Government Systems. Sundermeier has not sold yet in the fourth quarter, but we include him in this section because of the aggressive nature of his activity in the second and third calendar quarters. Between 04/29/08 and 07/01/08 he cleared out three different option series with expiration dates between February 2009 and February 2015 en route to selling 353,000 shares valued at $13 million. He distributed more shares in this three month period than he had in any full year dating back to 1999 when he became a registered insider. The shares **accounted for 75% of his actionable holdings** and covered four times the amount of stock and options he will gain access to next year through the vesting of additional options (see Appendix A). It is possible we might still see him take profits this quarter, but with his holdings now at the lowest level of all named officers, he might wait until early next year to resume trading.

- **Earl Lewis (64)*** – Chairman, President, Chief Executive Officer. At first it looked as though Lewis' fourth quarter sales were the result of long-held options that he needed to act on before their February 2009 expiration. But this proved to be only half the situation as Lewis traded on 15 consecutive sessions from 10/29/08 to 11/19/08, selling 255,000 shares, just one-fourth of which came from the expiring series. The remainder involved the monetization of options with expiration dates three and seven years out. While this was not the heaviest volume we have seen from him this year, and his total year-to-date volume trails 2007, the fact stands he sold at prices this quarter 12% below his last sales in May. The 858,000 shares sold in 2008 **represented 25% of his actionable holdings**, which are now down to their lowest level since late 2002. He will add another 258,000 options and shares to his holdings next year, all in the first two quarters, but this will hardly make him whole after the equity diversified away this year (see Appendix A).

- **John Hart (74)** – Director. Hart has served on the FLIR board longer than any other board member by 12 years. Typically we would discount the activity of an insider who is approaching retirement age but Hart has been granted an exception to the Company's governance rules so that he could serve an eighth three-year term, holding his seat beyond the mandatory retirement age of 75. He is obviously a significant director and a member of the Audit Committee and Corporate Governance Committee. This year he has sold 58,000 shares, including the 6,000 sold on 11/04/08 at $32. But what stands out to us, similar to the above-mentioned selling execs, is that this sale came at 20% lower prices than his last sale of 8,000 shares on 07/31/08. His **ownership is now down 50% since January** and there is no chance, short of open-market buying, of its being restocked since he has just 833 shares on tap to vest in 2009 (see Appendix A). We should also add here that Director **John Carter** (62) monetized 48,000 non-expiring options on 08/08/08, setting his holdings back by more than 30%. This was his first sale since joining the board in 2003.

* Indicates that the individual is a Named Executive in the Company's most recent Proxy.

<u>Fundamentals: Organic growth obfuscated by multiple acquisitions</u>

Though the Company is quick to point out that year-over-year growth is impressive for all three FLIR divisions, the fact that a number of acquisitions have taken place must be taken into account when assessing the actual level of organic growth within the Company. Since 2004, FLIR has completed the following acquisitions:

✓ **2004:** Indigo Systems

✓ **2005:** Scientific Materials Corporation and Brysen Optical

✓ **2007:** Australasian Infrared Systems (merged into Thermography and CVS)

✓ **1Q08:** Cedip Infrared Systems (merged into Govt. and CVS)

✓ **2Q08:** Ifara Technologies (merged into CVS)

Overall, FLIR management seldom discloses organic growth numbers, i.e. core growth without these acquisitions. In the 1Q08 conference call, though, it was mentioned that organic growth was 35% over the same period the prior year. Any such references to organic growth have disappeared from reporting in subsequent quarters.

We do, however, learn during the 3Q08 conference call from **Arne Almerfors**, head of the Thermography division, that organic growth in Thermography has been slowing over the course of the year. In the 1Q08 and 2Q08 organic growth remained strong at 17% and 16% on a year-over-year basis, respectively, but by the 3Q08 organic growth fell to 7% (the Company reported overall year-over-year growth for the period at 32%). Management attributes the weakness to softness in the high-end products, specifically the GasFinderIR product. The Company also reported geographic weakness in the U.S. market, but at the time of the conference call (mid-October), management maintained that growth remained strong in international markets. It will be interesting to see if this holds true for the 4Q08 and beyond, which seems unlikely given the deluge of recently gloomy news concerning global economic growth prospects.

Fundamentals: Year-over-year impressive, but sequential growth is slowing

All management hyperbole aside, evidence suggests that sequential growth rates are falling in both the Company's Thermography and CVS divisions, the very divisions where management expects to achieve growth through expanded distribution. But management stays focused on the more impressive year-over-year growth numbers in all its presentations.

Year-over-Year Revenue Growth (%)	2005	2006	2007	1Q08	2Q08	3Q08
Government Systems	-3.6	7.1	47.9	40.0	46.2	56.6
Thermography	17.7	19.4	19.4	47.3	40.4	31.9
Commercial Vision Systems	9.4	16.4	38.9	66.7	32.2	33.9
Total Revenue Growth	5.4	13.1	35.5	46.8	41.6	44.8

From a sequential perspective, however, revenue growth does not look as impressive as management's year-over-year comparisons, especially in the 3Q08, and interestingly seems to reflect the changes in backlog more so than the year-over-year growth numbers (see backlog discussion below). Furthermore, the sequential growth rate figures appear to reflect the macroeconomic environment. That being said, management did highlight on the 1Q08 conference call that organic growth was 35% over the same period one year earlier. However, there is no mention of what the organic growth rate was for the company as a whole in either the 2Q or the 3Q08.

Sequential Revenue Growth (%)	2005	2006	2007	1Q08	2Q08	3Q08
Government Systems	-3.6	7.1	47.9	-0.5	15.7	15.3
Thermography	17.7	19.4	19.4	-12.1	1.3	-1.8
Commercial Vision Systems	9.4	16.4	38.9	15.3	11.8	-6.1
Total Revenue Growth	5.4	13.1	35.5	-2.4	10.2	6.0

Looking at the peer group as a whole, it is clear from the table below that FLIR is not alone and that sequential growth slowed substantially in 3Q08, most likely reflecting weakening economic conditions. Net of acquisitions, it seems sequential growth tends to range between approximately 5% and 7%.

Sequential Revenue Growth Of Industry (%)	2005	2006	2007	1Q08	2Q08	3Q08
FLIR	5.4	13.1	35.5	-2.4	10.2	6.0
RTN	6.5	-7.3	4.5	4.6	9.6	-0.1

LLL	36.9	32.1	11.9	-7.9	6.2	-11.6
LMT	4.7	6.5	5.7	-7.9	10.6	-4.2
AXYS	28.9	17.1	9.8	17.8	6.9	7.4

Note: LLL completed several acquisitions from 2005 to 2007 while AXYS integrated acquisitions in 2005 and 2007.

In Thermography, clues as to where growth may be headed may have been provided by the fact that management has been very keen to increase the channels of distribution for this segment. It has been our experience that when a Company experiences slowing growth and turns to expanded distribution as a remedy, its time to pay attention. To this, we thought the following exchange from the 3Q08 conference call was interesting:

Analyst: If you think about how much product in Thermography is going to their distribution channels right now, can you give us a sense as to what it is right now? And it sounds like, Arne, you're looking at continuing to open more channels, including internationally, what it could be, say a year from now?

Arne Almerfors, President Thermography: I can only say that as an effect of the introduction of this high volume i5 product, yes we are also looking for new distribution channels, as we mentioned; catalogue, web and even, as we say, sometimes wholesalers. I mean, these new distributions, they are new distribution channels to us and they are just on its buildup and that's what we're going to see so much more of in the year 2009. To answer on the relation, I'm not prepared to do.

Based on Almerfors' answer, achieving growth through expansion of distribution channels might lead to suspicions of channel stuffing. When asked about the international distribution channels management does confirm that there is actual demand pull-through, though there is no discussion on the development of distribution channels in the U.S. CEO Lewis is proud of the fact, however, that FLIR recently signed on with the Grainger catalog, a popular distributor of industrial/commercial equipment. Again, the potential for filling this channel of distribution comes to mind.

The Commercial Vision Systems, as the name suggests, seems to have more exposure to the economic risks of today's environment. Interestingly, the economic risks may have somewhat caught FLIR by surprise. In the 1Q08 conference call, management is very adamant that they did not see any negative implications due to the weak economic environment. This seemed odd to us in that there are three industries that FLIR is exposed to that one would expect to feel the effects of the current economic environment; recreational boating, automotive (FLIR has had a relationship with Autoliv since 2005) and the high-end motor home market (a new market for FLIR night vision products). However, there is little disclosure to reveal what percent of the total CVS segment each of these end markets represents. In the opening remarks of the 1Q08 conference call, Head of C VS **Andy Teich** says, "We expect solid growth in CVS for the rest of 2008. We have yet to see any adverse effects from the US economy and feel our markets are strong as ever."

That sentiment continues into the 2Q08 when Teich says, “we continue to market aggressively into this market (referring to the maritime market), and product awareness continues to increase rapidly. This will position us for continued strong growth throughout the boating season.” However, by the 3Q08 Teich admits that, “maritime has been impacted the most by the weak economy”, though he later states, “But that’s not that big in the segment for us.” Although there is no real disclosure on what percentage the maritime and automotive markets represent for CVS, with revenues and backlog down by 6% on a sequential basis, one wonders if the exposure was larger than implied.

Accounting: Margins exceed those of peers but significant erosion is likely

From a margin perspective, what stands out loud and clear is that FLIR seems to have operating margins that stand head and shoulders above its peers. In addition, FLIR seems to have research and development expenses that are nearly three times those of its competitors (see discussion below). There doesn’t seem to be any significant commentary in any of the conference calls except to note that management talks of continually improving cost control. The 2007 SEC Form 10-K mentions increased cost efficiencies due to increasing volumes in the Government Systems and CVS divisions.

Industry Operating Margins (%)	2005	2006	2007	1Q08	2Q08	3Q08
FLIR	24.8	23.8	24.6	23.3	24.8	27.7
Raytheon (RTN)	7.7	9.1	10.9	11.4	11.3	11.6
L-3 Communications (LLL)	10.6	8.9	10.4	10.5	13.5	10.9
Lockheed Martin (LMT)	7.4	9.2	10.3	11.8	12.3	11.7
Axsys Technologies (AXYS)	10.4	10.4	13.6	14.2	16.2	18.2

However, there are two interesting points that are briefly mentioned in the 2006 SEC Form 10-K. One is the fact that margins were improving in 2006 based on product mix across all three segments. But with the acquisition of Extech and Cedip, management has highlighted that both companies had lower gross profit margins, which presumably explains the decline in margins in the Thermography division beginning in 2008. In addition, we found it interesting that in the 2006 10-K it is also mentioned that historically Thermography has experienced higher gross margins than those of Government Systems and CVS. This historical pattern seems to have taken a dramatic turn in fiscal 2008 and once again highlights the growing dependence upon the Government Systems division as a contributor to the financial health of the Company as a whole. It is unlikely that Thermography will regain its mid-30% operating margins any time soon considering the strategy of pushing more volume at lower and lower prices.

FLIR Segment Operating Margins (%)	2005	2006	2007	1Q08	2Q08	3Q08
Government Systems	32.3	27.1	34.7	37.4	40.3	42.3
Thermography	33.1	32.5	28.0	19.9	18.9	21.1
Commercial Vision Systems	9.9	18.2	19.8	22.5	19.6	22.1
Total Operating Margins	24.8	23.8	24.6	23.3	24.8	27.7

It is difficult for us to understand how FLIR can continue to sustain its high margins. Looking at the table on the prior page of margins for both L-3 Communications (LLL) and Raytheon (RTN), which derive 74% and 86%, respectively, of total revenues from the U.S. government, one sees that operating margins are much lower. In fact, RTN and LLL have been consistently reporting operating margins of 8% to 11%, respectively, since 2005. Furthermore, RTN discloses in its risk section that a large percentage of its contracts are fixed-price contracts and therefore are subject to greater margin risk due to potential cost overruns. Again, one assumes that the government, which most assume will be watching its purse strings more closely, will be utilizing more fixed-price contracts. As such, one wonders if margins will fall as FLIR increases its dependence on the government.

Though the Company does engage in some POC (percentage of completion) revenue recognition, it fails to quantify either the extent of its use or its levels of billed vs. unbilled receivables. Raytheon, on the other hand, provides much more disclosure on revenue recognition used under different types of contracts and how changes in such contracts are accounted for. Interestingly, FLIR does not specifically mention the use of fixed-price contracts, nor does it provide disclosure on it's billed versus unbilled receivables and related contracts utilizing POC. FLIR states only that, "The Company also has a limited number of design and development contracts, principally with governmental customers for which revenues and related costs are recognized using the percentage-of-completion method."

With half of the Company's revenues (55% in 3Q08) coming from Government Systems, FLIR will find a difficult task in shedding fixed costs related strictly to that business should those revenues decline. Indeed, in a first-time risk disclosure (2007 SEC Form 10-K) appearing in the section "Operating margins may be negatively impacted by a downturn in sales", the Company states that *"Some expenses, such as those related to research and development activities, would be maintained in the event of a sales downturn, in order to maintain and enhance the long term competiveness of the Company".*

Another factor that could come into play that could affect Government Systems margins is the high level of R&D spending. When we look at the peer group (see table below) we see that FLIR is in fact on the extreme high end of the scale. Furthermore, when looking at the peer group we discover that most companies seem to have a significant portion of their R&D funded by customers or by other independent companies. RTN, LMT and LLL all report minimal amounts of internally funded R&D, with the remaining funded by customers. FLIR also states in its 2007 SEC Form 10-K that it has additional customer funded design and development contracts that amounted to $8.9 million, $11.6 million, and $10.6 million in 2007, 2006 and 2005 respectively. According to the 10-K the expense is recorded as a cost of goods sold and the related funding as revenues.

Industry R&D as a % of Sales (%)	2005	2006	2007	1Q08	2Q08	3Q08
FLIR	10.1	10.5	9.3	9.8	9.0	7.8
RTN***	2.3	2.3	2.4	2.0	2.4	2.2
LLL*	0.7	0.6	0.7	0.7	0.6	0.2
LMT**	2.7	2.8	2.9	N/A	N/A	N/A
AXYS	2.8	2.9	3.7	3.5	3.5	3.4

* R&D percentages shown are internally funded amounts. Customer funded R&D is accounted for as expense with corresponding revenues included in sales.
** LMT reports only that R&D which is independently paid for. LMT also has customer funded R&D. R&D does not seem to be disclosed on a quarterly basis.
*** RTN states that it also conducts funded R&D for US government contracts, which is included in net sales. "Customer-sponsored R&D project performed under contracts are accounted for as contract costs as the work is performed."

FLIR places much emphasis, and is counting heavily on its strategy of reducing the cost of product to the industrial and commercial markets allowing it to provide attractive prices to a price elastic market. With its high fixed cost structure, it would seem logical that increasing volume, even at lower prices, could lower unit costs and allow for margins to hold. But in the lower price strata, with multiple new distributors, even wholesalers, selling to many markets, both domestic and international, is it a valid assumption that, even given lower unit costs, unit sales prices will hold enough to stay potential margin erosion? Will there be demand at any price given the deteriorating global economy?

<u>Accounting: Slowing backlog growth another sign overall growth is ebbing</u>

Although the Company's backlog continues to reach record levels, the rate of growth has slowed in the 3Q08 and for some segments, even declined. Backlog within the Government Systems division jumped from $220 million at the end of 2006 to $305 million at the end of 2007, a 38.6% increase. Although backlog has continued to increase in every quarter during fiscal 2008, the rate of growth slowed to 17.8% in the 3Q08.

Thermography, which according to the 2007SEC Form 10-K is the least backlog intensive division, saw its backlog increase by 67% from 2006 to 2007, presumably a significant part of that was acquisitions. However, throughout fiscal 2008 backlog for the division has been virtually flat at $22 million. The CVS division has seen the greatest change in its backlog. Backlog increased by 62% in 2007 from $42 million at the end of 2006 to $68 million, again with a large contribution from acquisitions. Backlog increased again in the 1Q08 to $80 million, a 17% increase, but recorded only a 7.5% increase in the 2Q08. By the 3Q08, backlog *decreased* by 6% to $81m. There was no explanation for the drop on the related conference call. Looking at the table below, backlog in the Government Systems division certainly has been carrying FLIR. It will be interesting to see how backlog trends as we move into 2009.

Growth in Backlog (%)	2007	1Q08	2Q08	3Q08
Government Systems	38.6	21.6	25.1	17.8
Thermography	66.7	0.0	10.0	0.0
Commercial Vision	61.9	12.0	7.5	-5.8
Total	43.4	19.8	21.4	13.6

Accounting: Miscellaneous noteworthy items

➡ **Share repurchases pick up in the wake of revised compensation plan:** We found it interesting to note that, during 2007, the Company modified its target for the executive Annual Incentive Plan (AIP), which represents cash bonus awards. The plan target was “simplified” to drive funding based on just one metric, EPS. This target had already been in place for the CEO since 2004 and is now the uniform metric for all executives. Though the effect on EPS thus far in 2008 is not material, it should be noted that, with FLIR shares trading at all-time highs, the Company has repurchased 1.4 million shares through the 3Q08 (681,000 of them for $31.71 each) vs. just 176,800 for the entire year of 2007 (at $21.14 each). We have always viewed large repurchases at high stock prices to represent something other than the typically-stated “returning capital to shareholders” goal. When such repurchases occur in an environment where insiders are not only selling but also where their compensation plans may benefit from those repurchases, we consider the motives for such action suspect.

➡ **Low provisioning seems the rule:** The Company clearly states that unrepatriated earnings of foreign subsidiaries are considered to be permanently invested and therefore no deferred taxes have been recorded on such earnings. While this treatment is not unusual in the case of domestic corporations with foreign subsidiaries, one wonders if perhaps another dimension may be in play here. With almost 40% of revenue coming from customers outside of the U.S., earnings of the Company's foreign subsidiaries contribute substantially to total corporate earnings and cash generation. Whether the Company's cash needs may ultimately require repatriation of those earnings, with the attendant provision for taxes seems an open question. Should that occur, the Company would be faced with recording and paying substantial amounts of taxes on earnings previously reported in consolidated net income.

It seems remarkable that, with over $241 million in accounts receivable, the reserve for doubtful A/R’s amounts to just $1.6 million. This reserve has remained consistently low for the past few years. Although the Valuation and Qualifying accounts schedule in the 2007 SEC Form 10-K, which shows correspondingly low write offs, seems to justify the reasoning for such a low allowance one wonders whether the new commercial distribution channels sought by the Company may significantly change things, especially given the exposure such markets have to deteriorating economic conditions. To this, we are reminded of WCI Communities Inc., who stubbornly clung to its historical 1% default rate assumption (on property closures), ultimately causing extreme stress in its financial condition as the real estate market came unhinged in South Florida. Though the A/R situation may very well not be as draconian at FLIR as was the case at WCI, the potential for deterioration seems very real and the reserve should be monitored carefully.

Appendix A

Common Stock and Option Holdings for Selected FLIR Systems Inc. (FLIR) Insiders

Name	Actionable Position as of 12/18/08:			Derivative Equity Expected to Vest in Next 12 Months			
	Common	Options [1]	Total [2]	Grant Date	Strike Price [3]	Vesting Dates	# Vesting
Arne Almerfors	116,460	187,466	**303,926**	02/13/06	$12.57	02/15/09	44,600
EVP, President of Thermography				02/13/06	N/A	02/15/09	4,400
				05/01/07	$20.75	02/15/09	23,467
				04/28/08	$34.31	02/15/09	10,833
				04/28/08	N/A	04/28/09	3,830
				05/01/07	N/A	05/01/09	2,700
							89,830
Stephen Bailey	43,097	583,086	**626,183**	02/13/06	$12.57	02/15/09	44,600
SVP of Finance, CFO				02/13/06	N/A	02/15/09	4,400
				05/01/07	$20.75	02/15/09	23,467
				04/28/08	$34.31	02/15/09	11,600
				04/28/08	N/A	04/28/09	4,107
				05/01/07	N/A	05/01/09	2,900
							91,074
John Hart	4,000	37,200	**41,200**	04/28/08	N/A	04/28/09	833
Director							
							833
Earl Lewis	916,656	1,723,969	**2,640,625**	02/13/06	$12.57	02/15/09	96,800
Chairman, President, CEO				02/13/06	N/A	02/15/09	9,200
				05/01/07	$20.75	02/15/09	83,334
				04/28/08	$34.31	02/15/09	43,167
				04/28/08	N/A	04/28/09	15,263
				05/01/07	N/A	05/01/09	10,334
							258,096
William Sundermeier	19,731	97,866	**117,597**	02/11/07	N/A	02/11/09	4,700
President of Govt Systems				02/13/06	$12.57	02/15/09	39,800
				02/13/06	N/A	02/15/09	3,800
				05/01/07	$20.75	02/15/09	23,467
				04/28/08	$34.31	02/15/09	10,833
				04/28/08	N/A	04/28/09	3,830
				05/01/07	N/A	05/01/09	2,700
							89,130
Anthony Trunzo	54,627	180,666	**235,293**	02/13/06	$12.57	02/15/09	29,000
SVP of Corp Strategy and Dev				02/13/06	N/A	02/15/09	4,200
				05/01/07	$20.75	02/15/09	15,667
				04/28/08	$34.31	02/15/09	7,833
				04/28/08	N/A	04/28/09	2,775
				05/01/07	N/A	05/01/09	1,940
							61,415

[1] Total number of vested, in-the-money options.

[2] Total actionable position includes common stock plus vested in-the-money options.

[3] Strike Price N/A indicates the series is restricted stock, not options.

Note: Red text indicates series is currently out-of-the-money