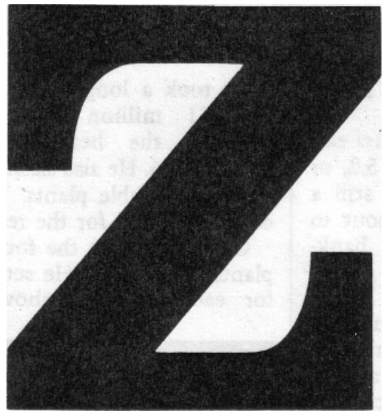


Z FACTOR

RESCUE BY THE NUMBERS

A board member said he'd try to save GTI from bankruptcy. He did it by making the figures add up right.

By Michael Ball
INC. Associate Editor

At age 41, Jim La Fleur had fulfilled the entrepreneur's dream. A mechanical engineer, he had founded La Fleur Corp. and Industrial Cryogenics, both based on some of his 130 patents. After 13 years of managing one company, then the other, he sold out in 1971 and walked away with a bag full of money. He and his wife, Helene, went sailing off on their 5-foot ketch, *Seaflower*.

In May 1975, after a three-year sail around the Caribbean and through the Panama Canal, La Fleur was sitting beside the swimming pool at his Los Angeles home when the phone rang.

"Jim," a voice from the receiver said, "we have a real problem. We need the audit committee at headquarters immediately."

La Fleur threw an extra shirt and a shaving kit into a battered briefcase and set off for a one-day meeting in Pittsburgh.

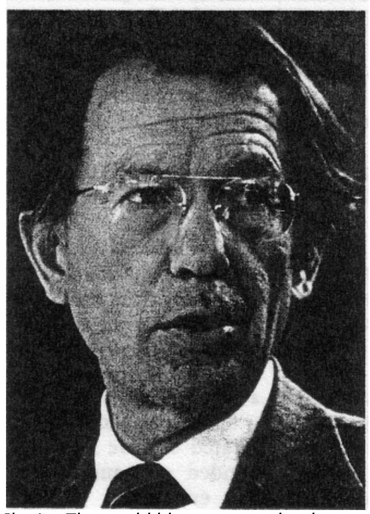
The meeting to which he'd been summoned was at GTI Corp., a $10-million-a-year, multi-plant maker of electronic components. La Fleur had been one of seven board members since 1973, flying in for meetings from whatever port he was in.

Along with most of the industry, GTI had succumbed to growth fever. In the 1960s, many managers kept their eyes glued to the profit-and-loss statements and were willing to pay what was necessary to increase sales. "They borrowed like crazy," as La Fleur describes it, "and the balance sheet was supposed to take care of itself."

That strategy worked until economic downturns hit in 1969 and again in 1972. Many companies began to have trouble servicing the debt they had shouldered to get higher sales.

During this period, GTI continued to register growth – on paper. But by 1974, even though the numbers still said the company was successful, La Fleur was telling GTI's management that the debt was too high. When he ran his own companies, La Fleur had learned to be wary of paper profits. He was also leery of financial terminology.

"It doesn't make any difference how much you appear to make," he had told the management, "if you can't flow cash. You're doing something wrong if you can't put your hands on your profits." But his warnings didn't convince either management or the board.



Jim La Fleur sold his company, but he couldn't stay retired.

Then, early in 1975, GTI started losing money. It was about to lose over $2.5 million on sales of $11 million. To top it off, the company's auditing firm had just found that the first-quarter 1975 figures reported to the Securities and Exchange Commission, the American Stock Exchange, and the stockholders were not accurate. Management, stunned by the losses, had not made full disclosure. As the story unfolded at the Friday, May 30, board meeting, it became obvious that this wasn't going to be the usual one-day session.

When GTI's auditing firm, Arthur Andersen & Co., was called, a managing partner started work to determine accurate figures by Monday morning.

As the real numbers were produced, some board members began to talk about finding the best buyer for the nearly bankrupt company. But not Jim La Fleur. He was convinced that the company had a sound product base. He wanted a thorough analysis of all the figures before he bailed out. Says La Fleur, "I asked for a month to see what the alternatives were."

That was Tuesday, June 3. The board cleared out and La Fleur started to work as chairman of GTI's audit committee. He called the SEC and announced discovery of a material discrepancy that he promised to define and correct. Then he called the American Stock Exchange and asked it to halt trading on GTI's stock.

That quick, direct approach did marvels. "We self-policed so fast," says La Fleur, "we didn't even have any lawsuits."

Next came the bankers. La Fleur told them that if they waited they would probably get paid. "Bankers never like to hear bad news," admits La Fleur, "but both Equibank in Pittsburgh and our second bank, US. Trust Co. of New York, said they'd do whatever they could. People almost always help you when you tell them the facts."

When he turned his attention to the new financial figures, La Fleur saw they were even worse than they had seemed. He plugged them into a stockbroker's tool he had used on his own companies, the Altman bankruptcy indicator. The results were dismal.

The Altman formula combines five ratios - equity / debt, capital / assets, sales / assets, earnings / assets, and retained earnings / assets - weighted according to their importance to a company's financial strength. The result is a "Z value" of corporate health. (See box, page 48.) A value above 2.99 indicates financial health; between 2.99 and 1.81 is a danger zone, and a company rated below 1.81 is near death.

According to the figures produced

on June 2, 1975, the Z for GTI was only 0.7.

It didn't help that three years earlier the Z had hit a high of 5.2, or that one year earlier it was still a safe 3.3. Now the Z was about to drop off the bottom of the bankruptcy scale.

La Fleur had a lot of faith in the validity of the Z value formula. So, he reasoned, why not work the bankruptcy indicator backward? If he could bring each ratio back into the favorable range, he ought to be able to turn the company around. He knew GTI had sound products. Now it needed sound numbers.

GTI's president, who was a board member, resigned when the revised figures were disclosed. The board began to look for a new president; meanwhile, La Fleur was made chairman and CEO, so he would have the power to operate during his month of assessing the situation. He spent the next weeks gathering more detailed information about GTI's corporate health.

From his position on the audit committee, he had seen GTI forced to borrow even when it had record sales and profits on paper. Now, from the CEO's chair, he was able to locate the root of that problem. It was in inventory. Work in process had increased disproportionately to sales. Often, defective materials had been set aside and buried in the warehouse.

With that unwelcome information, La Fleur adjusted the auditor's historical figures to even more accurate current ones. The new figures had a negative effect on both the balance sheet and GTI's position in the stock market. The company's subbankruptcy Z value dropped even further, to 0.4.

As La Fleur looked up from the bottom, he began to implement a recovery strategy designed to send the Z value straight up.

He started by focusing on corporate assets, the most important factor in Altman's indicator. Since four of the five ratios result from dividing by assets, misused or underused assets drag down a company's Z value quickly. La Fleur began examining everything the company had, from people to plants to product lines, to see what was being wasted.

In the previous year, with profits listed at $1.5 million, the corporate staff budget had been $1 million. La Fleur took a long look at the jobs that $1 million paid for, and trimmed the headquarters crew from 32 to 6. He also slashed staffs at two unprofitable plants. This freed one asset, cash, for the recovery.

Cutting staff at the four division plants was harder. He set up a grid for each location, showing each management position, what work each manager performed, and how much each was paid. Where he found overlap or duplication, he consolidated positions.

AS LA FLEUR LOOKED UP FROM THE BOTTOM, HE BEGAN TO IMPLEMENT ARECOVERY STRATEGY DESIGNED TO SEND THE Z VALUE STRAIGHT UP

As La Fleur was trimming here and there, his one month stretched into six. Seaflower languished at anchor in California. Helene visited him, but most of his evenings were spent in his room at the University Club in Pittsburgh.

In January 1976, when he saw his first snowy winter from his room's one window, La Fleur was made president of GTI. The company's Z value was still around 0.4.

By April, he felt he had done enough economizing from headquarters. It was time for some decisive action at one of the plants.

He chose the company's largest, located outside Pittsburgh. La Fleur handed out questionnaires to the 250 employees, asking what they thought the plant's problems were, why they felt it was no longer profitable. "And they knew," he says. "No one had ever asked them before, not even the 20-year veterans."

La Fleur did the same thing at the other Pennsylvania plant. There he analyzed the plant's facilities and personnel and drew up a new organizational chart for everyone "down to the janitor." The next weekend, he and Helene moved the office furniture at the plant to positions that reflected the new organizational chart.

"When people came in Monday morning, I told them-workers and managers who would do what," La Fleur says. Some upper- and middle-level managers felt the new order would not work, and they left shortly afterward.

But most employees adapted to the new way of working quickly and with relief. Because they participated in the changes, because the plant was ripe for change, and because they knew how badly the company was doing, the plant's employees really tried to make the reorganization work. In May 1976, only a month after La Fleur walked in the door, the plant was profitable again.

That news boosted morale at the plant, but it did not overly impress the stock market or GTI's other managers. And since the company's Z value was partially a function of its stock price, and market value, it did not leap as a result of this change. But for the first time in four years, it began to nose up slightly.

To La Fleur, who was keeping tabs on the five ratios, that was an important change-the first proof GTI had a chance.

Toward the end of the year La Fleur was ready to put his application of Altman's indicator to a major test. He thought he had found, in one product line, the wasted assets that would allow him to make a tremendous change in the company's Z value by affecting all the ratios simultaneously.

The Crystal Base line seemed healthy enough. But La Fleur thought its product – quartz crystals for citizen's band radio oscillators – was not complementary to the other four divisions' products. And although the line made a small profit, he expected its products to face decreasing demand. He figured the line would need increasing attention and capital to maintain profitability. So he put it on the market and got $550,000 in cash and $798,000 in notes for it.

Now La Fleur had cash in hand to apply to GTI's recovery. The company was free of what La Fleur saw as a misfit product line. And the sale was the jolt to the Z value that La Fleur had been preparing for.

All the ratios were affected immediately. GTI's Z value shot up from below 1.0 to 2.95 since as assets dropped with the sale of the division, the lower figure translated into improved sales, capital, and earnings. This brought it from nearbankruptcy to the safe zone.

At this point, in late December 1976, La Fleur felt the turnaround had been accomplished. More work would be needed to make GTI what La Fleur calls "a company worthy of being on the American Stock Exchange." But he felt the hardest part had been done.

"To many people on the outside, the company would not turn around for another year and a half," he says. Those people would measure by profits on sales or return on investment figures. But La Fleur had brought the company from near death to a point where it could concentrate on strengthening products and finding managers.

La Fleur no longer had to hide his books about corporate failure and bankruptcy indicators. Now he could enlist his managers' aid in getting the Z firmly in the safe zone. He soon had headquarters and division managers figuring the Z value and calculating how a proposed new product or other change would affect it.

The upward trend continued. In 1978, GTI showed its first profit since its near-bankruptcy.

Profits in 1979 were $1.5 million on sales of $21 million. The Z is over 7.0, 10 times what it was when La Fleur stepped in. He has succeeded in keeping equity and debt moving in opposite directions.

As a result, GTI is in a harvest period. "As you get that Z up, all sorts of opportunities just present themselves," La Fleur says, "and you have the cash to do something about it." When a new market segment is identified, GTI has the money and staff to enter it. As customers' needs change, GTI has the resources to offer products for those new requirements.

Sales and profits continue to increase, and productivity has almost doubled in the past five years. GTI's managers say they, not outside forces, control the company's future. "I was far ahead of my managers at the beginning," says La Fleur. "Now I hardly lead them at all. I've done my job. They can run the company without me."

To Jim La Fleur, a company is like a machine. If it's broken, you take it apart and put it back together the way it was when it ran right.

He's done that with GTI.

THE Z VALUE: THE HIGHER THE NUMBER, THE HEALTHIER THE COMPANY

Jim La Fleur used a formula to guide GTI to safety; and he and his managers check that formula regularly to make sure the company stays on track. The formula is Z = 1.2X, + 1.4X, + 3.3X3 + O.GX_4 + LOX,.

It looks complex, but it provides a simple measure of a company's health. Here's how it works:

X, is working capital divided by total assets (what someone would pay for the company if it were for sale).

X_2 is retained earnings divided by total assets.

X_3 is earnings before interests and taxes divided by total assets. X, is market value of equity divided by. book value of total debt. X_S is sales divided by total assets.

Z is the overall index of corporate fiscal health.

If you plug your company's numbers into the formula, you should get a number between -4 and +8. The higher the number, the healthier the company.

The formula was developed 12 years ago by Edward I. Altman, now chairman of New York University's M.B.A. program. He studied 33 manufacturing companies with assets averaging $6.4 million, all of which had filed Chapter X bankruptcies. As controls; he looked at 33 others randomly selected from manufacturing firms with assets between $1 million and $25 million.

He found five weighted ratios that proved a pretty accurate guide to a company's financial state. His system of multiple discriminant analysis (less formally, a "bankruptcy indicator") is used by stockbrokers to determine whether a company is a good investment.

According to Altman, financially strong companies have Z's above 2.99. Companies in serious trouble have Z's below 1.81. Those in the middle could go either way.

According to La Fleur, "When the trend is down and you can't control it, you're in trouble."

The closer a company gets to bankruptcy, the more accurate the Z value is as a predictor. In his group of 33 failed companies, Altman reports an accuracy of 95% using last year's numbers. The other 5% fell in the bottom of the gray area. Numbers from four years earlier would have predicted bankruptcy for only 36% of the companies.

In GTI's case, La Fleur admits he had the advantage of a cold eye. He came in through the audit committee, so he knew the company primarily by its numbers. "The beauty of this formula is that by changing assets, you affect all but one of the ratios," he notes. "It got us headed in the right direction and got the Z value pointing up. Following through on the details of those changes could be , done more leisurely."

With considerable justification, La Fleur is sold on the Altman predictor. While he may have been the first company head to work it backwards, he thinks nearly anyone can do the same. His only caution is that the system does not work well on the divisional level, since there are so many independent variables from the corporate level.

"I know Dr. Altman never intended his predictor to be used as a turnaround tool, but it can be," La Fleur says. "It works so well as a predictor because most people are inflexible" (that is, they go on doing whatever it was that brought the Z value down). "But it can work as a preventer if people get scared enough to change, or if there is someone new at the top to force change."

With all his faith in the Z, La Fleur does not look at the predictor as magic. "It won't let you turn a company around by itself," he says. "There is simply a lot of validity to the theories behind why Z values are accurate. Managers can't afford to ignore such a useful tool."

Altman says the best approach is to keep an eye on the Z as one more check on performance. La Fleur adds that-using the predictor has taught him and his managers the importance of reacting quickly when the numbers start going in the wrong direction.

If you want more detail on the derivation of the formula or its implications, you can. find it in Corporate *Bankruptcy* in America, by Edward I. Altman, published by D. C. Heath, or Corporate Collapse: The Causes and Symptoms, by John Argenti, published by John Wiley & Sons.

La Fleur suggests that it might be wise not to carry the books under your arm at headquarters.