

The Computerrized Investor By Peter J. Brennen
From the July 1985 Issue of *Wall Street Computer Review*

When Eugene H. Hawkins set up Investment Aalytics to generate investment analysis information for pension funds and money managers, he took the EASY way out. That's EASY as in Equity Analysis System. The Company's location, an imposing White mansion whose pillared portico overlooks a wide expanse of green lawn, near Watchung Mountains. N.J., may seem an unlikely place for an enterprise that keeps a finger on the pulse of the nation's securities markets. But the company's location is away from the noise and distractions of the big city, yet close enough that Gene Hawkins can work with his clients.

The firm offers a product called Equiview, a fundamental analysis reporting system that gives fund managers, investment analysts, and money managers a comprehensive view of any stocks they might own or follow. "It is a service for portfolio managers to help in stock analysis and stock selection using quantitative methods of evaluating relative attractiveness of one stock versus another," says Hawkins who started the company in late 1984 after a long career doing just that for an insurance company and brokerage houses.

Equiview is a reporting format that incorporates 30 investment criteria for each stock. The data can be used item by item or in combination to build relative rankings of stocks in relation to one another, to industry groups, or to the market as a whole.

The thrust of the analytical system is fundamental with emphasis on earnings momentum. Price and volume, of course, are the bases at all technical analysis systems. But in Equiview as in most fundamental analysis systems price is important as an indicator of value while volume plays no direct part at all.

The system relies on the standard fundamental data -- company income and balance sheet information-supplied by the Chicago-based Zacks Investment Research database. The system can also download data from other sources.

The Zacks database maintains some 100 separate items ranging from ticker symbol, latest price, several ranges of relative price change, shares outstanding and market value, earnings per share for several periods, reinvestment rate, sales, net income, book value, and much more. Volume is not one of the items.

One of the most significant Items is the Consensus Earnings Per Share, a single figure based on the forecast estimates of upwards of 1,500 security analysts employed at over 72 major brokerage firms. The fundamental analysis theory rests on the earning power of money relative to all possible investments. A growing company in a growing industry or economy must earn more money over time. The yield on a given investment over time will thus increase. Since the price of money does not stay long out of line with what it can demand in the safest of investments -- government obligations -- the price of the investment will increase to keep the yield in line with market yields with some kind of adjustment for differences in risk.

Many factors intervene to place a premium or discount on the yield of a given security at any given time compared to what that investment could earn elsewhere. However, those factors being equal, investments whose earnings rise will increase in price over time.

The fundamental analyst, unlike the technical analyst, pays little attention to daily price swings and even less to volume. His only concern is whether the price is right today assuming a certain earnings level tomorrow. The whole point of tracking and analyzing the fundamentals in such detail is to try to forecast with reasonable confidence the future path of earnings and dividends. The point of the consensus forecast is that many analysts looking at the same figures, which individually may be wide off the mark, will on average agree on a most probable outcome. It's like the consensus forecasts on the racing page in the daily paper. Pick the consensus to show and you'll consistently come out ahead despite frequent losers.

Gene Hawkins's Equiview is generated on an IBM PCXT which sits in a pleasant office furnished with an eclectic mixture of antique furniture. Client's may have up to 800 stocks ranked by individual factors such as current yield, market value, implied total return and the like. According to Hawkins the most important ranking is the combined rating which shows a stock's position relative to other stocks when as many as five different criteria rankings are combined with appropriate weights.

Does it work? Gene Hawkins says it does, because Equiview is, at base, a combination of investment strategies based on intuitive, yet sensible, premises many of which have produced good returns over extended periods of time. It is now a single giant equation into which one pumps a lot of data and from which one gets a single result.

Such algorithms are often based on assumptions drawn from historical data. That's the way it has worked so it should work that way in the future, is the theory. The theory often proves wrong eventually because the algorithm overlooked something that was not apparent at the time. Equiview, being a consensus of strategies as well as a consensus of forecasts, is less likely to fall into that trap.

EASY is the key to Equiview. In a sense, Equiview is a program to sort, select and screen stocks according to user-defined criteria. EASY is the language used to write Equiview. It is definitely not for the casual investor but rather for the sophisticated professional who expects to use the system regularly to follow a large universe of stocks-profitably, one hopes.

The user doesn't buy EASY, but leases it at an annual rental of \$3,000. And that's only for openers. The heart of the system is the Zacks database, Microanalyst, which contains 100 separate data items on some 3,000 stocks. A user can regularly update his own version of the database from diskettes shipped regularly from Zacks in Chicago, or he can update on-line via telephone and modem. Either way, it costs. Update disks cost \$2,000. \$4,000 or \$6,000 annually depending on how often you get one -- monthly, bi-weekly or weekly. If you choose to download the data from Compustat, Value Line or some others, there is a \$3,000 annual charge.

Altogether, the databases and software use up about 6 MB," says Hawkins. That includes the specialized databases and programs Hawkins has derived from the basic package. Leonard Zacks says the EASY software uses 1 MB while the basic database, whose updates come on five double-sided floppy disks requires 2 MB. The company recommends a minimum 10MB hard disk.

Hawkins also has an Okidata 2410 printer for which he paid about \$2,000 and with which he is extremely pleased. "I can't say enough for its versatility," he says. "I bought it after I read an article where the author reviewed many machines and rated this one tops." The machine does 350 characters per second in default mode, useful given the size and length of the reports Hawkins writes. The printer also produces near letter quality in various fonts for presentation work.

Completing the office is a Royal electric typewriter that doesn't seem to get too much use. On several well-stacked bookshelves, literature seems to outrank investment and computer topics by a wide margin.

Initially EASY is not that easy. Though one accesses its modules through a couple of short menus, it is a language, not a menu-driven program. Menus are easy to work with at first, but they become frustrating and annoying once the user knows his way around a program. A language or command driven program, which requires the user to learn a number of functions, is difficult in the beginning but far more efficient in the long run. You can structure a language the way you want it while a menu-driven program will always reflect its designer's conceptions more than its user's unique needs.

"You need to understand that the program has the capability to do many useful things once you have learned to use the system," says Hawkins. "But Zacks realizes not everyone will have or will want to take the time to learn EASY well enough to build their own systems. So Zacks will supply a turnkey system with everything set up so all you have to do is enter data and let the machine run. They'll set it up to your specifications. But if you don't understand it you can't modify it."

Hawkins picked the EASY system "because I was aware of it. I had been working with the same sort of data for some years and it was just obvious that this was what I needed." Hawkins is a dedicated fundamentalist. "No one has ever been able to explain to me why technical analysis works," he says. "Fundamental models can be explained but how different securities perform has as much to do with how investors behave as any other factor." While stocks with low price-earnings ratios have consistently outperformed the market over the last 50 years, there is no clearcut reason to believe low P/E stocks are consistently undervalued " he says. And though the whole point of analysis in general and fundamental analysis in particular is forecasting, Hawkins says "forecasting abilities are woefully inadequate. Forecasts contain enormous error, enormous error."

Hawkins discourses eloquently on the theory and actuality of portfolio selection and management and makes a pretty good case for long-term holdings. "The average mutual fund portfolio turns over 75% or more a year," he says. "That generates enormous transaction costs, precludes any benefit from long-term trends and makes it hard for the portfolio manager to show a good return," says Hawkins who co-authored "Earnings Expectations and Security Prices," which appeared in the Sept-Oct, 1984 issue of Financial Analysts Journal.

Hawkins fires up the XT. It has a color monitor but EASY runs monochrome. After the system initializes, Hawkins types "EASY" and a short menu comes up. The appropriate key calls up Reports to produce custom reports. Dataline for maintaining the database, Interface for creating data interchange files, or a Configuration module to set the software and hardware and a Utilities module that allows the user to update or create different databases.

Other available modules include a dividend discount workstation that allows analysts to build 10 dividend discount models. Some analytical schools believe dividend discount -- the present value of future earnings -- is the single most important derivative component of a fundamental analysis strategy. Another module allows a five year backtest. In essence, it allows the analyst to plug in all his assumptions and see how they would have compared against actuality had he been able to run the same program and assumptions as long as five years ago. The idea of course is that if the model backtests close to actuality, it must be a pretty good model for predicting the future.

Hawkins taps the "D" for "Dataline" key. Another menu with six items jumps on the screen: Create a new database; Delete an existing database; Items (add, delete, modify, print); Tickers (add, delete, print); Edit and review database contents; and Automatic update.

"Not all items update at the same time," says Hawkins, whose accent retains a trace of his native Alabama. Of the 100 or so items in the database on each security, some are daily, some weekly, and some annual figures. It is possible to update the base manually, but given the numbers of items and varying frequencies, it is far better to let the computer do it either by downloading or from the Zacks-supplied disks. After all, what's a computer for?

At this point, Hawkins hits another key and the screen explodes into color. He has invoked "Sidekick," an auxiliary program resident in memory that allows the operator to make windows on the screen and call in other programs while the main program remains active.

The power and versatility of EASY becomes obvious especially when it is combined with its equally powerful report print formatting statements. The result is client-ready reports of amazing depth and completeness. Many more statements and commands are possible to build quite complex programs. Some of those Gene Hawkins has devised are several pages long. It seems a lot of work. But once done, the user understands what he has done and how it functions, Hawkins can quickly change a program simply by calling up Sidekick and writing or editing a statement.

Whatever he or his client wants to look at in the base at 800 watched stocks that Hawkins has screened from the 3,000, a few taps of the keys and there is the unique report spewing from the printer.

There amid the antiques, the Emil Zola, the Henry James as well as Markowitz, Benjamin Graham and William Sharp, in the stately old white mansion, the health and future of industrial America flashes by in numbers.