AUTUMN VOL I **No 2**

STRATEGIC ANALYTICS

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For our second issue, we introduce the first of a series of guest articles addressing topical portfolio management issues.

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Steering Portfolios on a Steady Course

Tools and techniques for tougher times BY GERRY GUNN

MANAGING CREDIT PORTFOLIOS is often described–in something of an industry-wide confession–as analogous to driving by looking in the rear-view mirror. This provides a vivid picture to most of us. We use historical data that comes from past events, actions and decisions to determine what will happen going forward. In some times and places this has worked very well and our portfolio performance (and therefore our performance) has lived up to, or exceeded expectations. The outcome may have been influenced by excellent analysis, or luck, or shaped by events completely out of our control–but overall it worked . . . most of the time. Along the way there were portfolio "accidents". Some were small–others were large enough to get noticed. The size of the problem was usually directly related to who noticed. If very small, it stayed within the business and was managed on the local P & L. If bigger, it became a topic for executive management.

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Larger problems drew the interest of outside auditors, the board of directors, regulators and finally, if large enough, investors. When share price is affected everyone is involved. The most difficult questions to answer are usually preceded by a generic "How could this possibly have happened to us?!"

Some portfolio problems have been high profile, and the involved firms suffered fatal or near fatal blows as a result. The fatalities often resulted from yet another driving analogy–the portfolio manager's ability to exceed the speed limit and still be lost. Knowing the right direction to travel is as critical as moving swiftly. Speed and nimbleness has great value to increase market share, generate increasing profits, grow the business and reward investors, but the market today also tells us that earnings growth is valued over speed every time with little tolerance for surprises.

The industry has moved at an increasingly fast pace over the last decade. Time to market on new products and variations on old ones is a fraction of what it was ten years ago. The residential real estate market provides a good example. The 30-year fixed rate mortgage remains the staple of the industry but dozens of rate, index, term and qualification variations have sprung up. The need to enter new geographic and demographic markets has put great pressure on the Credit/Risk functions to combine with Marketing functions to solve the puzzles of not only "who will repay us?" but, as importantly, "who will use the product and generate a fair return for the institution?" The development and use of credit scoring as a tool for assessing risk has migrated further to determination of pricing and down payment criteria for the borrower and portfolio quality for the investor. The result–more people than ever are being granted credit and our portfolio profiles have the potential to change along with the mix of borrowers.

Rapid growth, consolidations of financial service companies and an uncertain economic future have combined to create very exciting times. We may find that the portfolio now on the books does not behave as past portfolios did. Surprises may lurk in how the book of business was originated, or how it was managed, or even in factors external to the portfolio or the institution. Yet commonly deployed techniques and methods assume that how our customers will behave in the future is based on how they have behaved in the past. If the mix of customers is different this time, or if the external situation is different, or both, then our rearview mirror approach may not be very accurate.

The need for more accurate and robust forecasting techniques has been recognized for years. In more stable times, one of the attractive features of consumer portfolios was that while they would always have losses, those losses could be reliably anticipated and planned for by the business. But as the environment changes, the ability to project losses may be affected. The consistency that is attractive to management and investors goes away. Clearly some of the "accidents" referred to earlier were caused by things not going as expected or as promised. But forecasting of losses is only the tip of the iceberg. Knowing in what direction they are headed, managers can expand and contract staff and facilities, change product and offerings, revise service standards and commitments to do a better job for the customer and the institution. Regulators have also taken a much greater interest in where a given book of business is going and how that book might be affected by various events along the way. The ability to "stress test"–long recognized as "nice to have"–becomes essential as events and changes come ever faster.

Can we continue to use the "rearview mirror" to navigate? No, we cannot. In the past ten years there have been three episodes of massive refinancing by borrowers in the residential mortgage business. Because the lifecycle of a mortgage is now closer to five years, few have gone through the normal maturation process. While most are probably good risks, the refinance boom has clouded the use of historical data. A similar case may be made in the card

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Who: GERRY GUNN
Position: Retired in mid-2000 after a 36-year career in the financial services industry.

Gerry's primary focus has been credit risk management associated with credit card, consumer, real estate and small business portfolios. He also has led the melding of acquired portfolios–a key player in three acquisitions that were the largest mergers of consumer portfolios for their time and has worked with regulators, investors, analysts and industry leaders on issues of importance to banks and the industry in general. He has been a member of CBA, RMA, BAI, ABA and California Banker's Association committees related to Retail Banking and Consumer Lending. He and his wife, Carole, reside in Tiburon, CA and spend their leisure time traveling, sailing, volunteering and watching their grandchildren grow.

VISIBILITY and the Practice of Scenario Creation

Analytic methods focus on core uncertainies, enviornmental shifts

IT BEGAN WITH A SPATE OF TECHNOLOGY-SECTOR earnings warnings–earlier this year. The new buzzword in stock analyst circles became 'visibility'–or more pointedly, the lack of it. The term describes the uncertainty in estimating the length of the downturn in the business cycle that slows sales and swells inventories. Visibility shortfalls are being used to explain the element of surprise–and as such brought little confidence to investors looking for predictable business performance.

Few portfolio managers or CFOs can cite a lack of visibility as an excuse for lagging performance–and get away with it. Yet environmental uncertainty abounds. How can one accurately enhance visibility of key portfolio drivers and their impact on portfolio results in the near future?

The answer lies in building competence in the development of business scenarios. Scenarios are credible instances of what the future could look like. Without a crystal ball you may not know which scenario will play out, but you can know what the impact will be for each. And you can have an action plan in place when it becomes clear that one of your scenarios is starting to become history.

Scenarios have three main parts: origination, policy, and environment. Marketing plans (including how many new accounts and their demographics) will alter the portfolio mix being simulated. Changes in policy for existing customers and changes in external factors (legal, regulatory, or economic) shift the environment that affects consumers.

SA technology begins with the decomposition of the historical data for the key portfolio drivers into its maturation and exogenous impact components. From the maturation curve, we project the intrinsic behavior of new and existing customers. Examination of the exogenous impact curves quantifies past environmental changes and provides the basis for creating a scenario for the future environment.

What characterizes good scenario building?

Collaboration is essential. Rarely does a key portfolio driver behave in isolation without impact on other drivers. Therefore, contributions from various disciplines (marketing, collections, risk management, finance) enhance the validity and credibility of the scenarios.

Second, good scenarios learn from the past without blindly repeating it. By quantifying the components of past behavior, SA's technology enables informed judgments about which impacts will recur and which will not.

> Without a crystal ball you may not know which scenario will play out, but you can know what the impact will be for each ... and have an action plan in place.

Third, good scenarios 'bound the problem' in a reasonable way. While the number of possible scenarios can grow geometrically with each possible permutation, good scenario management focuses on a reasonable number of scenarios that represent best, worst and most likely cases.

Today's uncertainty regarding the impact of bankruptcy reform presents an illustrative challenge: the best case may anticipate a modest spike in bankruptcies and then a drop as legislation takes hold. The worst case may anticipate a larger spike and a sustained higher level before a decline. In both cases,

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assumptions as to when the legislation takes hold are implicit. A middle ground can then be crafted which balances optimism and pessimism. For all three, the portfolio impacts are measured and used to develop contingency and mitigation strategies.

Finally, good scenario management involves monitoring and continuous revision. Internal scenarios should reflect the latest in business trends, changes in sourcing strategies and acquisition of new customers. Even without major changes in these areas, knowing which path one is going down is critical to activating new management strategies. Further, feedback on the accuracy of scenarios provides the lessons for more accurate scenario development in the future.

With experience, scenario development and management can become not only a key competence of the organization but a competitive weapon. Those businesses with visibility are and will continue to be more effective in executing their business strategies, and are more highly valued as a result. Clients of SA's forecasting and simulation tools are empowered not only with the finest tools to measure the impact of future trends–they have the full support of SA in the scenario development process as well.

We look forward to helping you make it an ongoing and successful process for your organization.

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business with the aggressive use of balance transfer offers. The normal behavior patterns may have been disrupted as a result. Additionally the rapid movement of people among firms across the industry and the relatively long run of economic prosperity has potentially reduced corporate memory and perhaps the reflexes to avoid future problems.

Today there is a need to get much better at understanding our portfolios. We can't rely on history or growth or luck to keep us from experiencing problems. The use of data and analysis to promote growth has been very successful over the last decade. Some firms have made great strides using data to manage the portfolios booked, but as an industry it is not evident that portfolio management abilities have kept pace with our ability to grow. Advanced analytics will continue to evolve to serve this need, improving substantially on the rear-view mirror, and enabling forward-viewing portfolio management practices to meet today's challenges and reality. Such techniques are long overdue. Practitioners will benefit from enhanced abilities to understand and manage portfolios in good times and bad. Those abilities may prove, in the long run, to be the most critical skills of all.

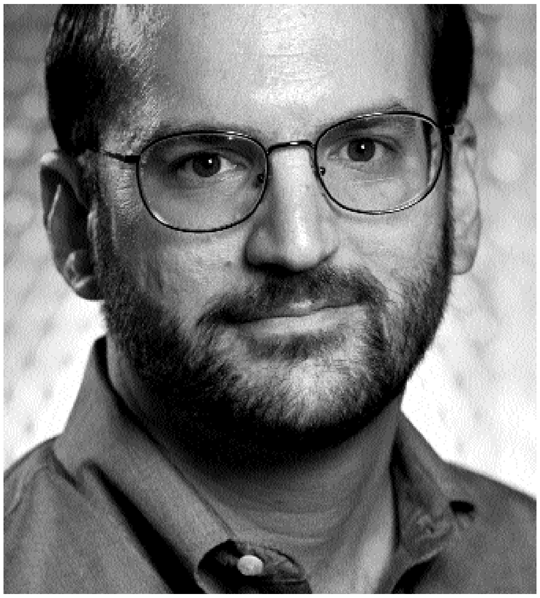
"... Forecasting of losses is only the tip of the iceberg ... managers **can** expand and contract staff and facilities, change product and offerings, revise service standards–and generally do a better job for the customer and the institution."

Company & News Notes

Strategic Analytics is the proud recipient of a technology commercialization grant from Los Alamos National Laboratories. The annual program is designed to encourage local New Mexico-based companies to develop and commercialize new technologies. Applications for the grant were evaluated on technical merit, originality, and suitability for commercialization. SA used the grant proceeds to fund patent application work, a crucial step in the commercialization process.

SA's new website is now up, featuring enhanced product descriptions and a bright new design. Check it out at www.strategicanalytics.com.

Tony Giancola: harnessing mainframe capabilities for today's powerful PCs



Tony Giancola: **Go** Aficionado

WHAT ARE THE COMMON connections between the ancient Chinese strategy game, **Go**, and the world of parallel supercomputing? One correct answer is that both undertakings are highly complex. The right answer for purpose of this profile, however, is that both of these pursuits represent deep interests of Tony Giancola, a co-founder of Strategic Analytics and the company's Chief Technology Officer.

Tony has been actively involved in scientific supercomputing for almost 20 years. Working variously with Los Alamos National Labs and the Air Force Phillips Labs, Tony's rocket science experience came in designing and executing simulations on high velocity particle impacts on satellites and plasma implosions. Simulation (which features prominently in SA's product line and capabilities) is especially computation-hungry. Personal computers have only recently become powerful enough to tackle interesting simulation problems. Before that time, you needed big iron (mainframes and minis) to handle the large amount of data I/O and computation required for effective simulation.

While Tony has naturally spent a lot of time in mainframe environments, he always kept pace with the latest PC developments. When he moved to the private sector, where innovation and cost-effectiveness are watchwords, Tony was ready. In 1997, Tony and a supporting software team developed and delivered a groundbreaking bank crisis simulator used at Citibank to train bank management teams in developing countries. The project was developed using one of the first commercial versions of the Java programming language and runtime environment, and delivered on laptops using Pentium II processors, the combination yielding considerably less throughput than today's systems. This feat required an intense programming effort to squeeze every available trick out of the language and from the meager available processing power.

Innovation and technical vision characterizes Tony's contribution to Strategic Analytics, greatly enhancing our ability to take on difficult challenges for clients.

Yet, Tony's talents are not purely technical. As the spiritual leader of our software effort, he never loses sight of the human element in organizations. Tony is the company's bridge between staff and management, a vital function no matter how open a company's culture.

For relaxation and recreation, Tony plays **Go**. Also known as *baduk, wei ch'i, weiqi* and *igo*, **Go** originated in China over 4,000 years ago. Some believe that the board game is a forerunner of the abacus, or possibly originated as a kind of fortune-telling device. Today **Go** is played by millions of people in Asia with recognized player skill levels to be attained. Games are also played with counterparts over the Internet using a golf-like handicap system. Tony has been playing **Go** for over 10 years, a pastime he expects to pursue for the rest of his life.

While it may seem paradoxical that he would want to relax with a strategy game, Tony's fascination with, and total immersion in software and computing from an early age may explain his choice of both vocation and avocation.

Need to Explain **Portfolio Trends** FAST? Express Yourself !

PDE brings powerful insight into portfolio trends and dynamics, with regularity, speed, and ease you can depend on. Contact SA for a personal demo of the Express.

THIS SCENE MAY BE A FAMILIAR ONE: transaction and payment data has been processed for the month, and the patterns revealed are puzzling. Perhaps delinquencies and losses ticked up. Or a sudden change in credit utilization is observed. The questions multiply. Is this the start of a trend? Was it the result of that new credit line policy we implemented? Or are we seeing differences because we sourced some new customers differently? Is it a combination of effects?

Typically, such questions lead to analyses–data mined for days, even weeks. And without a suite of tailored, advanced analytics, the conclusions can be murky at best. **Enter Portfolio Dynamics Express (PDE)** from Strategic Analytics. Timely on-line access and answers to key portfolio questions.

HERE'S HOW IT WORKS:
Your business data is processed on a monthly basis using SA's patent-pending Dual-time Dynamics (DtD) engine, and the results are loaded onto a secure web-enabled application ready for access, browsing, and fast answers. You are now ready to explore armed with the most sophisticated tools available.

Included is an updated portfolio 'dashboard', reflecting the portfolio's current health, early warnings of change and environmental trends. Segments and vintages can be compared for their sensitivity to exogenous impacts, and differences in maturations trends. Have a question? Submit it to SA from within PDE and get your answer on-line.

Another powerful feature is the creation of a 'corporate memory' of actions taken and their impact on performance. The user can annotate such impacts, reflected as distinctive features in the exogenous curves, once the curve has been analyzed and presented. The result is a recorded memory that aids in evaluation of such actions and the planning of new ones.

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