Earnest money:

Experimental economics puts the world of finance under a microscope

What happens when economics steps into the lab? Can you test it? Touch it? Poke it?

Of course.

The result is experimental economics, a growing discipline that reaches into nearly every aspect of life, from the best auditing standards to how much candy an 8-year-old might share with a classmate. Researchers use reproducible, scientifically rigorous experiments to test fundamental economic questions.

Steven Schwartz, associate professor of accounting in Binghamton's School of Management, is gaining notice from top academic journals for his work in the field, including a recent investigation into the interplay between authority and honesty in the budgeting process.

And his work comes at a good time for economics, if also a bad time for the economy.

The financial crisis has left many 401(k)-watchers wishing they could go back to school to learn more about terms such as credit default swaps and "naked" short selling, or understand better the accounting wizardry at work behind the massive federal bailout of Wall Street.

It also has served to bring into sharp relief the role of self-interest in financial transactions.

Self-interest takes center stage in "The Effect of Honesty and Superior Authority on Budget Proposals," a paper Schwartz researched with colleagues Frederick W. Rankin of Colorado State University and Richard A. Young of The Ohio State University. Their findings were recently published by *The Accounting Review*, a top-three journal in the field.

Here, they take previous research that shows subordinates have differing degrees of honesty in the budgeting process and move it several steps further — manipulating interactions to see what produces incremental differences in honesty.

Does it matter if the subordinate or superior has final say over the budget approval? Will employees be more or less honest when they have to state the true cost of the budget versus something more akin to an offer? All of these, Schwartz and his colleagues discovered, affect honesty. And often the smallest difference in control has the biggest impact — a more finely tuned understanding than can be gleaned from mountains of data.

Schwartz, like all experimental economists, must find creative ways to simulate the real world — he has also researched the best way to teach experiments in the accounting management classroom — so an incredible amount of attention goes into the design of the experiments. The idea is to strike a balance between the relative simplicity of a controlled laboratory setting and all the messy motivations that make up human nature.

For example, in order to recreate a one-shot exchange between a manager and a worker over a budget in a lab setting, Schwartz and his colleagues found a way to give participants enough experience to "get" the idea of the experiment, but not skew results by having them get too comfortable with each other. Participants interacted for 20 rounds, but were randomly re-matched after each round.

That same attention to detail was maintained when it came to money.

As the budget communication manipulation played out, the subordinate either proposed an allocation of the project's profit to the superior — they tagged this the "no factual assertion" treatment — or reported the project's exact cost to the superior — the "factual assertion" treatment.

Schwartz and his colleagues discovered that the most honesty came from giving subordinates final say over the budget. That is, when employees are trusted to do the right thing, they tend to do it.

This is not to say that employees should be trusted entirely. Schwartz's results also suggest that while having the superior set the budget may be resented by employees, it does benefit the firm through greater control.

Taken together, this research shows that companies must be careful in choosing just the right amount of authority for their managers. Give them too much and employees will act with resentment; too little, and they will run roughshod over corporate policies.

It's in this way that experimental economics can trump traditional economic models: It is better at capturing human behavior that isn't always rational.

And accounting, like human nature, is a natural application for the methods

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of experimental economics, said Shyam Sunder, a professor at the Yale School of Management and a noted experimental economist. As a largely institutional discipline, even small changes to accounting can have large consequences.

"Of course no experience in the laboratory will give you a perfect prediction. That doesn't happen even in science, but it gives you some idea, on a small scale, what might happen if you made this change, and that gives you a little more confidence on which path to choose," Sunder said.

Sunder recently attended a conference where a group of researchers wanted to know whether auditors choosing their own standards or norms would lead to an increase in compliance.

"They found, yes, it makes a significant difference," he said. "If you have a chance to participate in deciding the norms and standards, you stick to them more, even if, in auditing context, it means personal sacrifice."

Schwartz was attracted to experimental economics for its hands-on approach and its respect for the enduringly popular game theory, or how people react strategically in situations where competing strategies are at work. Schwartz describes it all simply as "fun."

That sense of fun has translated into all sorts of creative approaches, from finding a way to measure cooperation mathematically to pondering eBay's feedback mechanism. Schwartz has also discovered that he shares a passion for the motivations of honesty and altruism with top names in the field such as Ernst Fehr of the University of Zurich in Switzerland, who recently published a provocative paper on the roots of sharing by testing children and candy.

Schwartz also shares an interest in showing how economics can turn conventional wisdom on its head. He recalled a famous experiment, some 20 years ago, in which researchers found that if lying would net you only a paltry sum as a reward, you wouldn't do it.

"You are not going to lie for a nickel," he explained.

But boost that reward to a quarter and all of a sudden fibbing emerges — or so the experiments said.

"But we found that's not really the case," he said. He has seen firsthand how subjects forgo all types of selfish behavior in favor of more benevolent social norms.

So we're not just servants of our own self-interest?

Not at all.

"People," he said, "are much more willing to return a kindness with a kindness than you think." ■

— Kathleen Ryan O'Connor