

N 1984, economics Nobel Laureate George Stigler predicted that economics was on its way to becoming the queen of the social sciences. He called economics "an imperial science," one that was clearing a path through the academic thickets for other social disciplines. He applauded the work of "economist-missionaries . . . often against apprehensive and hostile natives."

Well a funny thing happened on the way to the coronation. Over the quarter-century since Stigler's article, it has become clear that economics has as much to learn from other disciplines as it has to teach them. Today, the field of behavioral finance uses insights from psychology and sociology to understand financial markets. Corporate scandals and greed-driven financial crises have led to calls for blending ethics into economics. And Nobel Prizes in economics over the past decade have gone to a psychologist, Daniel Kahneman (see F&D, September 2009), and a political scientist, Elinor Ostrom.

These developments might have upset George Stigler but not his namesake, George Akerlof, a 2001 economics Nobel laureate. He says it has long been his "dream" to have a macroeconomics grounded in the "full range of human emotions and actions: fairness, confidence, greed, identity, procrastination." (Procrastination? We'll get back to that . . . later.)

## "It's not fair!"

Akerlof says the topic that has motivated him the most over his 40-year career is unemployment. "I have always thought of unemployment as a terrible thing. In fact that has been the motivation for almost everything I have ever written. A person without a job loses not just his income but often the sense that he is fulfilling the duties expected of him as a human being."

Why does unemployment arise? Akerlof, in joint work with noted economist Janet Yellen (who also happens to be his wife), has argued that the notion of fairness plays a key role. Akerlof and Yellen draw on sociology to enrich the description of how exchange takes place in markets, including the labor market. In economic theory, the price at which

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an exchange takes place is determined by supply and demand. If more sellers bring fruit to a farmers' market than there are buyers that day, the price at which fruit is sold drops. If there is an unexpected snowstorm, a hardware store, according to the economic theory, will raise the price of shovels and is justified in doing so to reflect their sudden scarcity.

But "human beings don't always think this way," says Akerlof. Surveys have shown that people regard it as unfair if hardware stores raise prices in the middle of a snowstorm. And prices may not always fall in the farmers' market when supply outstrips demand. People who shop in farmers' markets are often "making a statement," Akerlof says. Some buyers may buy a bit more than they had planned if they see the sellers they are trying to support not doing too well. And some sellers may have too much "pride in the quality [of their product]" to lower the price and may hold out for a price they regard as "fair."

When applied to the labor market, considerations of fairness play an even more important role. The price at which labor is exchanged—the wage rate—does not depend solely on the demand and supply of labor. The employer has to factor in the impact of paying a low wage on the morale and efficiency of the worker. It does no good for an employer to drive down a worker's wage if that would cause the worker to be resentful and to figuratively "spit in the soup." Hence employers offer something higher than the wage that would equate demand and supply. Akerlof and Yellen call this the "efficiency wage" to capture the notion that higher wages motivate workers to be more effective or efficient at their jobs.

The aggregate consequence of employers doing the right thing is that there will always be some unemployment in the economy, because wages will be set higher than the rate at which everyone who seeks a job would be employed. "The market for jobs is then like a game of musical chairs, with more people on the dance floor than there are chairs. When the music stops, some people cannot find a chair," Akerlof has written (Akerlof and Shiller, 2009).

# **Animal spirits**

Akerlof says that trying to understand unemployment—"why supply doesn't always equal demand in labor markets"—has also helped him think in a more broad-minded way about how "people, organizations, markets, and capitalism" really work. This creative thinking is reflected in Akerlof's 2009 book *Animal Spirits* (see F&D, December 2008)—written jointly with Yale University economist Robert Shiller—which was short-listed for the Financial Times/Goldman Sachs Business Book of the Year Award. Shiller told F&D that in the process of writing the book, the views of the two authors, already close, blended further, so that "I can no longer identify reliably who wrote what." The book, he says, reflects "our view that the social sciences should be more united."

Akerlof and Shiller demonstrate how forces not generally considered in standard macroeconomics—such as fairness, greed, and confidence—are critical to understanding not just why there is unemployment but also why economies fall into recession and why asset markets are so volatile. They are particularly keen to resurrect the importance the great British economist John Maynard Keynes assigned to the role of confidence in economic fluctuations, most notably in his assertion that business investment depends significantly on the state of confidence or on "animal spirits." "The state of confidence," Keynes wrote, "is a matter to which practical men always pay the closest attention. But economists have not analyzed it carefully."

Investment decisions by businesses and households' choice of how much to consume today versus how much to save for the future are driven by uncertain and fluctuating expectations of what the future holds. Keynes argued that "this feeling of uncertainty waxes and wanes: sometimes people are more confident than at others. When confidence is high, the economy thrives; when it is low, it sickens." Indeed, overconfidence can spur excessive and foolish investment, for instance in housing markets. The collapse of optimistic expectations can thus lead to a collapse of the economy. And when the economy is down, loss of confidence can cause an overreaction in the other direction, with credit drying up and consumers retrenching.

Akerlof points to the 1991 recession in the United States as an example of the importance of confidence. He remembers a session at the American Economic Association meetings in 1992 where leading economists went through the usual roster of explanations for the recession. None fit. The best explanation was the one offered by Olivier Blanchard, then at MIT but now the IMF's chief economist, who said that the invasion of Kuwait by Saddam Hussein had delivered a blow to U.S. consumer confidence and hence to consumption expenditures. "Olivier's explanation was simple but it was right," says Akerlof. "Or at least I don't know of an explanation that fits the main facts better."

## **Happy home**

With the private economy subject to mood swings, the role of the government is to stabilize the economy through its actions. The government, Akerlof and Shiller state, should be like a responsible parent to the economy, neither too authoritarian nor too permissive. Capitalist societies can be tremendously creative, and the government should not be so strict as to interfere with that creativity. But capitalism left to its own devices also runs to excess, and the government's role is to act as a countervailing force against extravagance.

So when the private economy is booming, the government must guard against euphoria and it must save for the likely collapse. And when private confidence is low, the government must carry out public investment. Indeed, Keynes famously argued that even digging ditches and refilling them

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was a worthwhile activity for the government when the private sector is in the doldrums. Akerlof says it "should not come to that. There are many more worthwhile things that a government can do to create a confidence multiplier" to get the economy back on track.

The government also has a role in preventing corruption and predatory activity. In a famous paper written in 1993, Akerlof and his coauthor, economist Paul Romer, dispensed with the euphemisms and simply called it "looting." The paper was written in the aftermath of a spate of financial crises during which private investors left the government with the responsibility for extensive debt. Akerlof says, "of course we were very much motivated by the savings and loan crisis" in the United States in the early 1990s.

Akerlof and Romer wrote that the savings and loan "fiasco" occurred because regulators hid the true extent of the problem, Congress pressured regulators to go easy on favored constituents and big donors, and lobbyists succeeded in preventing corrective action until the problem was so large it had to be passed on to the general public. They concluded that "now we know better. If we learn from experience, history need not repeat itself."

Unfortunately, events since Akerlof and Romer wrote their paper read, as David Leonhardt put it in *The New York Times*, "like a sad coda to the 'Looting' paper." In the early 2000s, scandals engulfed corporations like Enron. Inadequate regulation of subprime lending and outright fraud are now widely accepted to have been a trigger for the global financial crisis and the Great Recession of 2007–09. Romer now recalls that just as they were done writing their paper in 1993, Akerlof told him that the next candidate for looting would be an obscure little market called "credit derivatives."

Asked to summarize his view of government policies over the past 30 years, Akerlof says with characteristic understatement: "Let's just say that the government has had mixed success in creating a happy home."

## **Ivy League**

In his <u>2001 Nobel lecture</u>, Akerlof describes his own life as a child and young man as mostly a happy one, but subject to the vicissitudes of his father's career. Akerlof remembers thinking that "if my father lost his job, and my family stopped spending their money, then another father would lose their job and so on. The economy would spiral downward." Worries about his father's job prospects may explain, he wrote in the lecture, why "in some sense I began work on unemployment theory when I was 12. Fifty years later I am still mulling over the same subject."

Akerlof went to Yale for his undergraduate education; he had "no choice," he says, because his father had been an assistant professor there and his brother went to Yale as well. In addition to taking courses in economics and math, he worked on the <u>Yale Daily News</u>. He says it "dominated his life." He tried to make the <u>News</u> less of an official organ and more of a newspaper devoted to student issues and features of human interest: "I wanted it to be less solemn and more serious." Despite his enthusiasm and hard work, however, he was denied election to the <u>News</u> board in his junior year.

In his Nobel lecture, he said that this denial may have been because "I am not accurate regarding facts." But Akerlof told F&D that his "statement [in the lecture] perhaps leaves a wrong impression about me." He says that he is careful with the "facts that matter" and that his research has always been guided by trying to explain facts: "Why is there unemployment? Why do people report that they have trouble selling their houses? Why are some people poor? Why do people procrastinate? Why do people act up? Why do entire nations act up?"

After Yale, Akerlof headed for graduate work at MIT, which boasted a cast of stellar professors, such as Robert Solow (see F&D, March 2011), and brilliant students—including Joseph Stiglitz (see F&D, December 2009), who later shared the Nobel Prize with Akerlof. Princeton University's Avinash Dixit (see F&D, December 2010), also a contemporary of Akerlof's at MIT, says that "[George] posed questions that no one else would. And just when you were thinking that only a damn fool would ask a question like that, he produced a beautiful answer that changed your perspective... The combination of daring questions and beautiful answers is what makes George the successful contrarian he is."

### **Berkeley bound**

Since 1966, much of Akerlof's career has been as a professor at the University of California, Berkeley. As with Yale, there is a family association; his great-grandfather graduated from Berkeley in 1873. When he won the Nobel in 2001, Akerlof gave the prize money to Berkeley: "I did that because I felt that they had supported me well and I wanted to show how grateful I was." Christina Romer, a fellow professor at Berkeley, says that "George is a kind, generous, and enthusiastic person who loves economics. He contributes immeasurably to the department by simply being the kind of person he is." She adds that his "teaching evaluations are simply off the charts." Shiller says that Akerlof is like a father toward the graduate students he supervises: "He advises them to be nice

when they go on the job market. The people interviewing you are hiring you to be a colleague, he tells them, and they want to see that you are a nice person."

While an academic at heart, Akerlof has maintained close links with the policy world. During the 1970s, he worked for a year each at the Council of Economic Advisers (CEA) and the Federal Reserve. Barry Chiswick, a labor economist and currently department chair at The George Washington University, was at the CEA at the same time. In his Nobel lecture, Akerlof credits Chiswick with teaching him empirical economics. Chiswick tells F&D that "it is very gracious of George to have said that," but "it was a two-way street—All of us at CEA learned from George's unique basket of skills." He recalls Akerlof as being very engaged with the issue of teenage unemployment, a problem in the 1970s as it is today. "George was concerned that if young people miss out and don't get a good first job that it would be taken as a negative signal that could affect them for life," says Chiswick.

In addition to these stints at U.S. government agencies, Akerlof has maintained a long-term association with the Brookings Institution. Since September 2010 he has been a senior resident scholar in the IMF's Research Department. Blanchard says that "having George in our midst would be a boon at any time; but his presence is particularly welcome at the moment, when the IMF needs creative thinking on many fronts, from tackling the unemployment crisis to the design of financial regulation."

## Lemons

While unemployment is the topic that has motivated him the most, it is his 1970 article showing how markets might break down in the presence of asymmetric (or unequal) information that won him the Nobel Prize. Indeed, if you play a game of word association with an economics PhD and say "Akerlof," chances are the response will be "lemons." This is because the example Akerlof gave was of used car markets, where sellers have better knowledge of whether their car is a good one or a "lemon." The buyers' best guess is that the car is of average quality, so they will only be willing to pay the price of a car of average quality. This means, however, that owners of good cars will not place their cars in the used car market. But that in turn lowers the average quality of cars on the market, causing buyers to revise downward their expectations of quality. Now even owners of moderately good cars are unable to sell, and so the market spirals toward collapse.

Akerlof says that the problem dates back to one that has confronted horse traders over the ages: "If he wants to *sell* that horse, do I really want to *buy* it?" But problems of asymmetric information are present in most markets, particularly in financial markets. "This [recent financial] crisis gave us glaring examples," says Akerlof. "Ordinary people thought they were buying homes, not the complex derivatives that they later realized they had ended up buying."

Akerlof says he chose the example of used cars to make his paper "more palatable" to U.S. readers. But his interest in the subject had been triggered when, during his stay in India in 1967–68, he noticed people's difficulty obtaining credit. He

kept this example in the paper, along with sections on how the "lemons principle" could also explain why the elderly had trouble obtaining insurance and why minorities had difficulty obtaining employment. All this proved too exotic for much of the academic market of the time; the paper was turned down by three leading journals before it was finally published in the *Quarterly Journal of Economics*.

Today, the questions Akerlof tackled in the "lemons" paper are a staple of the academic diet. And Akerlof himself continues to push the frontiers on the study of such questions, most recently in *Identity Economics*, coauthored with <u>Rachel Kranton</u>, then at the <u>University of Maryland</u>. Akerlof's son, Robby, carries on the tradition. A graduate of Yale—where Shiller was one of his professors—and Harvard, he is studying questions such as why corruption and the tolerance of it vary across corporations; what managers can do to increase the legitimacy of their authority (paying efficiency wages turns out to be one option); what accounts for an oppositional culture where minorities disparage the majority and are disparaged in turn; and what fuels protracted feuds between two parties.

## Oh finally!

So here at long last is the procrastination story. Akerlof wrote a 1991 essay, "Procrastination and Obedience," in which he argues that studying the habit could explain phenomena such as substance abuse and inadequate savings.

In the essay, Akerlof tells of having procrastinated for over eight months before sending back a box of clothes from India to the United States. The box belonged to Joseph Stiglitz, who had left it behind in India when visiting. "Each morning . . . I woke up and decided that the next day would be the day to send the Stiglitz box," Akerlof wrote. Reflecting on the story, Akerlof told F&D that "on things that really matter" he is not a procrastinator.

"Joe didn't really need his box. If I had thought he needed it, he would have got it." ■

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