

It wasn't as crazy as it sounds. Several other beautiful theories flowed from Fama's idea, and on paper—or in elaborate computer models—they were backed by plenty of evidence. They also spawned more than a few Nobel Prizes and Wall Street fortunes. The problem, as Harvard economist (and now top Obama administration economic adviser) Larry Summers once said, was that they all amounted to “ketchup economics”: You can show very elegantly that the market will efficiently price two-quart bottles of ketchup at twice the price of a one-quart bottle; the problem is that the one-quart bottle may be mispriced.

Summers is a New Keynesian economist, one of a group that has held to Keynes's essential point that market malfunctions can cause economic downturns. Investors may get caught up in panics; large numbers of people may stop spending money even though there appears to be no objective reason for them to do so. But, lulled by the solid economic performance of 1985–2007, the New Keynesians tended to agree with the neoclassicists that the economy normally functions smoothly and that smart Federal Reserve policy is sufficient to keep it on track. Meanwhile, neoclassicists pushed into more extreme ground. In the 1980s, Edward Prescott of the University of Minnesota, later a Nobel Prize winner, argued that changes in demand were not caused by the business cycle at all but by outside forces, such as technological change. Bubbles, some of the neoclassicist economists argued, just couldn't happen. All the theories proved it.

What now? Keynesianism is not dead—it inspired the Obama administration's massive stimulus package—but the New Keynesians' elaborate models (including Krugman's own, he confesses) can't cope with the kind of upheaval the financial sector and the larger economy have experienced. Economists of all kinds counted on the Federal Reserve as the ultimate steward of the economy, but it has cut interest rates virtually to zero and has no ammunition left. Economists will need to recognize that the economy is a lot messier than they thought, Krugman argues. There are plenty of building-blocks for new models—Fed chairman Ben Bernanke contributed an important piece in his time as a Princeton economist—but, Krugman says, “it will be a long time, if ever, before the new, more realistic approaches . . . offer the same kind of clarity, completeness, and sheer beauty” that once bedazzled so many.

ECONOMICS, LABOR & BUSINESS

The Cost of 9/11

THE SOURCE: “The Economic Impacts of the September 11, 2001, Terrorist Attacks” edited by S. Brock Blomberg and Adam Z. Rose, in *Peace Economics, Peace Science, and Public Policy*, Vol. 15, No. 2, 2009.

HOW MANY PEOPLE DIED AS A result of the terrorist attacks of September 11, 2001? Most sources now settle on the figure of 2,975, but too many imponderables confound a perfect determination. For example, do you count the man who died later of lung cancer after breathing debris from New York's ruined World Trade Center?

How much harder it is to tally the economic impact of 9/11. The online journal *Peace Economics, Peace Science, and Public Policy* put the question to eight research teams and individuals. They were told to leave aside the cost of remedial action at the World Trade Center site, heightened homeland security that has left government and industry buildings ringed with bollards and patrolled by armed guards, and military actions overseas. Nonetheless, some of the findings are surprising.

Nearly all the researchers came back with results that pegged the cost to the national economy (in 2006 dollars) at between \$35 billion and \$109 billion—about 0.5 percent to 1 percent of GDP. That is much less than some earlier estimates, which ranged as high as \$500 billion.

A team headed by economist Adam Z. Rose of the University of Southern California found that losses from business interruptions totaled “only slightly over \$100 billion.” The Rose team arrived at its figure by looking individually at the affected business sectors for three years after the attacks occurred. By its estimates, air transportation suffered the biggest hit—\$35 billion in losses over two years—followed by hotels (\$22 billion) and restaurants (\$14 billion).

Rose and his group also looked more narrowly at the impact on firms housed in the World Trade Center and other damaged or destroyed buildings nearby. Of the 1,134 firms em-

ploying 114,126 workers at the time of the attacks, those that went out of business employed only 4,511 workers. Nearly 88 percent of the employees—100,226 in all—worked for firms

that relocated within Manhattan. New Jersey absorbed 4,680 of the workers; counties north of New York City, 2,758; the rest of the United States, 1,804; and foreign countries, 146.

Rose and economist S. Brock Blomberg of Claremont McKenna College say that the results underscore the ability of the U.S. economy to bounce back under pressure.

FOREIGN POLICY & DEFENSE

War and Warming

THE SOURCES: “Environmental Security Heats Up,” in *Environmental Change and Security Program Report*, Issue 13, 2008–09, “Avoid Hyperbole, Oversimplification When Climate and Security Meet,” in *Bulletin of the Atomic Scientists*, Aug. 24, 2009, and “Planning for Climate Change: The Security Community’s Precautionary Principle,” in *Climatic Change*, Sept. 2009, all by Geoffrey D. Dabelko.

THERE ARE CRITICS WHO STILL dismiss climate change as the obsession of polar bear fetishizers and SUV hatemongers, but a significant group has begun to take it seriously: high-level military, diplomatic, and intelligence professionals in the United States and abroad. Their interest may get governments off high center and signals “the dawning of a new era,” writes Geoffrey D. Dabelko, director of the Environmental Change and Security Program at the Woodrow Wilson Center.

“Since I began working in the environmental security field 19 years ago, climate change has never drawn this much attention from the security community,” he writes in the *Environmental Change and Security Program Report*. “We are flooded with

reports from foreign-policy think tanks, military strategists, and scientists around the world on climate.” In an assessment earlier this year, director of U.S. national intelligence Dennis Blair warned, “The intelligence community judges global climate change will have important and extensive implications for U.S. national security interests over the next 20 years.” UN secretary-general Ban Ki-moon has cited climate change, desertification, and conflicts between pastoralists and agriculturalists as underlying causes of the genocide in Darfur.

Top of mind in the security community are rising sea levels, increasingly frequent and severe weather events, shifting disease vectors, and smaller crop yields.

The security community has a worried eye on rising sea levels, more frequent severe weather events, and lower crop yields as possible sources of future conflict.

Climate change may also have important indirect effects—for example, changes in human migration patterns as people follow resources or seek to escape environmental degradation. Other threats include shifts in natural resource patterns (as when rivers dry up) and access to searoutes. Reductions in Arctic sea ice, for instance, have opened new waters to navigation and increased tensions among Canada, Russia, the United States, and other nations with Arctic interests.

For security professionals, the fact that climate change isn’t thoroughly understood is no barrier to action. Military strategists and planners must make decisions all the time based on partial information, and they are well versed in planning for worst-case scenarios. Still, Dabelko points out, they are accustomed to problems that involve borders, the use of force, and a zero-sum mentality, and may have to adjust their thinking to plan for climate threats.

While the new attention to climate change may be the answer to some environmentalists’ prayers, it also opens the door to exaggeration and hyperbole. Terms such as “climate wars” shouldn’t have much place in the discussion, Dabelko writes. Climate change may exacerbate conflicts, but the mainsprings