The Crisis of Economics



Special Article 1

By Barry EICHENGREEN

The "Great Credit Crisis" has cast a pall over the global economy. It has also raised doubts about much of what we thought we knew about economics. We thought that policymakers had tamed the business cycle – that macroeconomic volatility had given way to "the Great Moderation." We thought that financial institutions and markets were tolerably well supervised and regulated. Above all, we thought that we had learned how to prevent the kind of financial calamity that struck the US and world economies in the 1930s.

Barry Eichengreen

Cold Hard Facts

Now we realize that much of what we thought was true about policy was false. It is tempting to go further, as not a few critics have done, and say the same about the economic doctrine informing those policies. Those critics indict not just the institutional investors who took excessive risks and the policymakers who looked the other way but also the academic scribblers providing intellectual justifica-



Employed people, including farmers, firemen and janitors, demonstrate in Times Square, New York, on Nov. 18, 1930 amid the Great Depression. They wear signs stating their professions and offering to work for a dollar a week.

tion for their actions. Economic theorists built models in which the market can be counted on to get it right without need for regulatory intervention. Financial economists built models to value complex securities and instruct financial institutions on how much capital they needed as a cushion against risk. Macroeconomists built models of monetary policy in which central bank regulation of financial conditions could be routinized and interest-rate setting could all but be turned over to a computer.

These models, like all models, were stylized representations of the real world. That is to say, their conclusions were valid only under restrictive assumptions. We know now that the divergence between assumption and reality was so dramatic that these modeling exercises were not worth the paper they were written on. The implication, in one view, is that the very enterprise of neoclassical economics has been discredited.

Theory & Reality

Certainly economists have plenty to answer for. The idea that downside risk to a financial institution could be represented by a set of equations and summarized in a single number, known as "Value at Risk," encouraged investment managers to develop a false sense of security. That sense of security was false because those techniques and the models on which they rested worked as predicted only under special assumptions about the world and the processes generating asset returns. Specifically the processes generating the returns were assumed not to be subject to exceptionally large shocks – what have come to be known as "Black Swans." We now know that those assumptions were too restrictive to remotely resemble reality.

The same was true of the idea that the art of monetary policy could be reduced to a simple formula known as "the Taylor Rule," in which central banks raise or lower interest rates in response to movements in inflation and output. This too, in other words, was a gross oversimplification. The Taylor Rule may have successfully delivered low inflation and low unemployment in periods of low volatility. But it had nothing to say about how to conduct policy when volatility spiked, much less how to prevent those spikes from taking place. It encouraged central banks to neglect other factors, not least excessive exuberance and risktaking in financial markets.

Their more thoughtful architects regarded these simple models as no



G-20 leaders, including new US President Barack Obama, pose for photographers ahead of the start of their London Summit on April 2.

more than starting points for serious thinking. Unfortunately, many of those responsible for making key decisions took them literally. This reflected the seductive appeal of elegant theory. Comfort was taken in the belief that complex problems could be reduced to a set of tidy mathematical relationships. And if some of the facts were not obviously compatible with the model, then these were ignored or reinterpreted to render them compatible with the framework.

Indeed, it sometimes seems as if one of the principal skills that many economists learn in graduate school is how to reinterpret virtually any observation in a manner compatible with the prevailing conceptual framework. If price/rental ratios in housing markets rose to levels far in excess of anything seen before, this couldn't possibly be a housing bubble - no, it had to reflect a permanent decline in interest rates that made it possible for households to assume larger mortgages, together with justifiable expectations of higher future incomes. If financial institutions took on additional leverage using borrowed money on a scale never seen previously, this couldn't possibly be excessive risk-taking – no, it had to be that they had learned how to manage risks better and more efficiently economize on their own capital. If the United States was running an unprecedented current account deficit and financing it by selling debt to foreigners, this couldn't possibly be the American consumer and government living beyond their means - no, it must reflect the singular ability of the United States to produce the high-quality financial assets desired by the rest of the world.

Now, of course, we know that these models and interpretations were worse than unrealistic. They were weapons of economic mass destruction.

Competing Currents

Yet this simple-minded approach – that the market naturally gets it right and that whatever the observation it must have an explanation compatible with this presumption – reflects only one of several currents of what is taught and practiced as neoclassical economics. tive mortgage originators in the same way they need to be protected from deceptive advertizing for pharmaceuticals. It suggested preventing financial institutions from growing so big that they could corner or manipulate markets, whether markets in the credit default swaps of Icelandic banks or other assets. It suggested that regulation was needed on systemic-stability grounds to restrain excessive risk-taking by financial institutions deemed too big to fail.

Then there is agency theory, whose point of departure is the observation that shareholders find it difficult to monitor managers, who have an incentive to take decisions which translate into large end-of-current year bonuses but not necessarily into the long-term health of the enterprise. Risk-taking that produces handsome returns today but ends in bankruptcy tomorrow may be perfectly congenial to CEOs who receive generous bonuses and severance packages but not to shareholders who end up holding worthless paper. Indeed, this work pointed to compensation practices in the financial sector as encouraging short-termism and excessive risktaking and was heightening conflicts of interest – although there was inadequate appreciation of the fact. The failure of policymakers to take such warnings more seriously is all the more peculiar given that contract theory is hardly an obscure corner of economics. A Nobel Prize for work in this area was awarded to Leonid Hurwicz, Eric Maskin and Roger Myerson in 2007.

In the real world, a borrower tends to know more than a lender about his willingness and ability to repay a loan. This asymmetry in information has been at the heart of much recent work in financial economics. This research emphasizes the existence of adverse selection in financial markets – that when interest rates rise, only borrowers with high-risk projects offering some chance of generating the high returns needed to service and repay loans will be willing to borrow. Indeed, if higher interest rates mean riskier borrowers, then there may be no interest rate high enough to compensate the lender for that the borrower may default, and all lending and borrowing may collapse. These models show how borrowers have an incentive to take on more risk when using other people's money or if

There is, for example, the theory of regulation that analyzes three rationales for intervention in markets: consumer protection, market integrity, and systemic stability. It is clear how such work could and in some cases did inform analyses of housing and financial markets and should have informed policy. It suggested outlawing "teaser mortgages" on consumer protection grounds: households needed to be protected against decepthey expect to be bailed out when things go wrong. The name for this problem, "moral hazard," will be familiar in the wake of recent central-bank rescue operations. Again this is hardly an obscure corner of economics: George Akerlof, Michael Spence and Joseph Stiglitz were awarded the Nobel Prize for their work on it in 2001.

The Behavioral Revolution

Finally there is behavioral economics and its subfields, notably behavioral finance. Behavioral economics focuses on how cognition, emotion, and other psychological and social factors affect economic and financial decision-making. Researchers here depart from the simple-minded benchmark that investors take optimal decisions on the basis of all available information. Instead they acknowledge that decision making is not easy. They acknowledge that in practice many decisions are taken using rules of thumb, which are often formed on the basis of social convention.

It is easy to see how this small step in the direction of realism can transform one's view of the operation of financial markets. It can explain herd behavior, where everyone follows the crowd, giving rise to bubbles, panics and crashes. What is true of investors can also be true of regulators, who similarly find information costly to acquire and will be tempted to follow convention – even when that convention allows the development of excessive risk-taking by the regulated. Indeed, these models suggest that the attitudes of regulators may be infected not merely by the practices and attitudes of their fellow regulators but also by those of the regulated. Economists now have a name for this version of the intellectual chicken-in-the-henhouse syndrome: "cognitive regulatory capture."

And what is true of investors and regulators, introspection suggests, can also be true of academics. When it is costly to acquire and assimilate information about how reality diverges from the assumptions underlying popular economic models, it will be tempting to ignore those divergences. When convention within the discipline is to assume efficient markets, it creates psychic costs to buck the trend. Scholars who do otherwise, building models of market inefficiencies, are less likely to be invited to give papers at prestigious meetings. Those complaining that lax monetary policies are fueling a credit-unsustainable boom are not likely to be invited back to lavish central bank conferences. When market participants are making money applying financial-engineering techniques, it is intellectually appealing to build models purporting to show why those techniques are profitable. In other words, scholars are no more immune than regulators from the problem of intellectual capture.

With hindsight, then, it is not hard to understand why the economics profession failed to see this train wreck coming. The problem was not so much lacunae in the corpus of neoclassical economics. It was not the failure or inability of economists to model conflicts of interest, incentives for excessive risk-taking, information problems and other real-world phenomena that can give rise to financial manias, panics and crises. Rather, it was a partial and blinkered reading of the literature by those, on both the academic and policy sides, who used theory to inform policy. And that partial and blinkered reading was a function of the social milieu in which they operated.

Now that milieu has been turned upside down. Instead of emphasizing the efficiency of markets and dangers of excessive regulation, everyone is conscious of market inefficiencies and inadequate regulation. Academics and policymakers now ritually invoke theoretical models pointing to these lessons. Of course this just raises the danger of the corresponding overreaction, of inadequate appreciation of markets and of overregulation.

A Better Future

Are we bound to repeat these mistakes? Are economists doomed to follow the latest intellectual fad and fashion, like investors swinging wildly from excessive enthusiasm to despair about the operation of markets?

There is at least one reason to hope not. Unbeknownst to many, there has been a fundamental change in the last 10 years in the study of economics. For decades theorists held the intellectual high ground. With their command of sophisticated mathematical methods, they defined the research agenda. Empiricists, with poor data and limited technology, struggled to keep up. But now the microcomputer revolution and the Internet have transformed this situation. Where the typical empirical analysis had used a few dozen or at most a few hundred data points, often transcribed by hand, we now regularly see empirical analyses using many hundreds of thousands or even millions of observations on workers, households. bond prices, stock returns and other variables, all downloaded from the Internet. Where computing power once limited the empirical analysis of large data sets, powerful desktop computers have relaxed this constraint. This has opened up rich new research possibilities, and the new cohorts of students have responded. Strikingly, it is now empiricists doing careful data work who are the most sought-after young researchers.

Empiricists, by necessity, are in closer touch with reality than their more theoretically inclined colleagues. Their views are less likely to be shaped by intellectual fad and fashion and more likely to reflect the facts on the ground. This is at least one reason for hoping that, in the future, the kind of advice offered by academic economists will reflect less abstract presumption and more real-world observation.

Barry Eichengreen is George C. Pardee and Helen N. Pardee Professor of Economics and Political Science at the University of California, Berkeley. He is also Research Associate at the National Bureau of Economic Research and Research Fellow of the Centre for Economic Policy Research.