

# Mark Gertler

Mark Gertler, one of the most cited researchers in macroeconomics, has spent much of his career looking at how conditions in financial markets affect the real economy — Main Street. In doing so, he has shed light on one of the curious properties of modern economies: Setbacks to an economy that seem relatively minor in the overall scheme of things can nonetheless lead to large negative effects across the system. His work on these issues, with collaborators, innovatively combined elements of microeconomics, banking and finance, and business cycle theory.

Gertler met one of those collaborators in the early 1980s when he was an economics Ph.D. student at Stanford. Gertler and a new junior professor, one with an outsized interest in the Great Depression, took a liking to each another and became frequent co-authors. Among the concepts that emerged from their partnership was that of “financial accelerators” — mechanisms that could cause a short-lived shock to financial conditions to translate into persistent fluctuations in the economy. Later, in 2007 and 2008, Gertler’s collaborator, Ben Bernanke, would put the lessons of their work to practical use as Bernanke led the formulation of the Fed’s responses to the financial crisis.

Apart from an advisory role at the New York Fed and a one-year stint as a visiting scholar there, Gertler himself has never walked the well-trodden path between university economics departments and positions in the Fed, the White House, the Treasury Department, and elsewhere in government. He has spent most of his career at New York University, where — in addition to his research and teaching — he led an aggressive long-term effort as department chairman to upgrade the school’s status within the discipline. Formerly “a solid small-market team,” in the words of the *New York Times Magazine*, NYU became, in the eyes of many, a top-tier department.

In addition, Gertler performed a signal service to the Richmond Fed by serving on the dissertation committee of its future president, Jeffrey Lacker, when Lacker was a doctoral student at the University of Wisconsin-Madison.

David A. Price interviewed Gertler at his office at Columbia University, where he is visiting for the academic year, in December 2013.



**EF:** How did you become interested in economics in general and macroeconomics in particular?

**Gertler:** When I was an undergraduate, like most undergraduates in my day, I was interested in law school. But I realized in my junior year that my heart wasn’t completely in it. I happened to take intermediate macroeconomics and I had a great teacher, Don Nichols. He was inspiring. What I liked about macroeconomics was that it was math applied to real-world problems. It was interesting to see how you could set up a model, shift some curves around, and possibly do some good with it in terms of economic policy.

It just seemed like a nice combination of mathematics, in which I was interested, and something that seemed socially useful. I found it both interesting and relevant, so I figured maybe it was my calling.

**EF:** Is there anything you’ve learned from the Great Recession about the role of finance that you weren’t aware of before?

**Gertler:** I liken the crisis to 9/11; that is, there was an inkling that something bad could happen. I think there was some sense it was going to be associated with all the financial innovation, but just like with 9/11, we couldn’t see it coming.

When we look back, we can piece everything together and make sense of things, but what we didn't really understand was the fragility in the shadow banking system, how it made the economy very vulnerable. I always think of the Warren Buffet line, "You don't know who's naked until you drain the swimming pool." That's sort of what happened here.

I think when we look back on the crisis, we can explain most of what happened given existing theory. It's just we couldn't see it at the time.

**EF: What should policymakers have done differently in the run-up to the crisis?**

**Gertler:** Perhaps the biggest mistake involved regulation in the subprime lending market. We all thought homeownership sounded like a very appealing idea, but getting everybody into the housing market involved lowering lending standards, which meant risky mortgage lending. Second, we let a largely unregulated intermediary sector grow up outside the commercial banking sector. The biggest mistakes probably involved too much deregulation.

**EF: What do you think is the best explanation for the policies that were pursued?**

**Gertler:** At the time, I think it was partly unbridled belief in the market — that financial markets are competitive markets, and they ought to function well, not taking into account that any individual is just concerned about his or her welfare, not about the market as a whole or the exposure of the market as a whole. And so you had this whole system grow up without any outside monitoring by the government. It just had individuals making these trades and making these bets; nobody was adding everything up and understanding the risk exposure. And there was this attitude that we ought to be inclusive about homeownership — that was going on as well.

Plus, complacency set in. We had the Great Moderation of the 1980s and 1990s, and we all thought we'd solved the major problems in macroeconomics. There were some prominent macroeconomists saying, "Look, we shouldn't be wasting our time on these conventional issues; we've already solved them." That led to most people just being asleep at the wheel.

**EF: Do you think that monetary policy should have been different during this period?**

**Gertler:** It's possible that short-term interest rates contributed to the growth of the subprime market, because there were a number of borrowers taking variable rate mortgages, but I think that consideration was second order,

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relative to the deregulation. That is, if we had adequate regulation of subprime lending, then I don't think the low interest rates would have contributed to the crisis at all.

Also, people fail to take into account the trade-offs. We had a very weak employment situation. Had we raised interest rates only a

little bit, we would have done nothing to curb the housing bubble, and if we'd raised them quite a bit, we would have killed the economy.

**EF: Speaking of interest rates, would you say the low interest rates today are a result of monetary policy levers that are being adjusted in Washington, or do they simply ratify conditions in the real economy?**

**Gertler:** I think it's a little bit of both. The economy is weak. The natural rates of interest are low, and they're arguably negative now, so the Fed has pushed down short-term rates as far as it can; we're at the zero bound, or about. As for longer-term rates, I think they're influenced both by where the economy naturally is and by policy. I think there's an expectation that three to four years from now the economy will recover, pushing future short rates up, which puts upward pressure on long rates. On the other hand, we've had a lot of quantitative easing, which puts downward pressure on long rates, so I say for longer-term rates it's both policy and the natural forces of the economy at work.

**EF: Along with Ben Bernanke and Simon Gilchrist, you helped to develop the concept of financial accelerators, linking financial market conditions with those of the real economy. Can you explain what you found?**

**Gertler:** I think the way we got started was that I had done some earlier work with Bernanke, and we were interested in understanding why there was such a sharp contraction in the Great Depression and why it was so persistent. We were drawn to a theory originally put forward by Irving Fisher in 1933, the debt-deflation theory. Fisher argued that the deflation at the time increased the real debt burden of borrowers, and that led to a reduction in their spending, which put downward pressure on the economy, and further deflation, and so on. What we saw in that was a kind of feedback mechanism between the real sector and the balance sheets in the financial sector that amplified the cycle.

That's what we wanted to capture with the financial accelerator, that is, the mutual feedback between the real sector and the financial sector. We also wanted to capture the primary importance of balance sheets — when balance sheets weaken, that causes credit to tighten, leading to downward pressure on the real economy, which further weakens balance sheets. I think that's what

one saw in the financial crisis.

So we were inspired by Fisher's debt-deflation theory, and we were trying to formalize that idea using modern methods. Then we found some other implications, like the role of credit spreads: When balance sheets weaken, credit spreads increase, and credit spreads are a natural indicator of financial distress. And again, you saw something similar in the current crisis — with a weakening of the balance sheets of financial institutions and households, you saw credit spreads going up, and the real economy going down.

I didn't speak to Bernanke a lot during the height of the crisis. But one moment I caught him, asked him how things were going, and he said, "Well, on the bright side, we may have some evidence for the financial accelerator."

**EF: That sounds like gallows humor, and not —**

**Gertler:** No, not enthusiasm, no. [Laughs.] Not enthusiasm at all. He would have been happy to find the theory completely wrong.

**EF: When you and Bernanke started this work, were you drawn to the Great Depression as a subject because it's like Mount Everest for mountaineers, or what was the attraction?**

**Gertler:** It was Bernanke who was originally inspired to work on the Depression, and his motivation was that if you're interested in geography, you study earthquakes. I got really interested in it through him. At the time we started working together, you were starting to see financial crises around the globe, some in emerging markets, and then also the banking crises in the late 1980s in the United States. That made us think, wow, maybe this stuff is still relevant. Maybe it's not just a phenomenon of the Great Depression.

**EF: How did you get to know each other?**

**Gertler:** We had a mutual friend, Jeremy Bulow. Jeremy was a student at MIT, where Bernanke studied, but he would spend time at Stanford, where I studied. In the early 1980s, Bernanke was coming to Stanford as I was leaving. Jeremy had actually sublet his house from Bob Hall; it was a rather huge house, so he needed roommates. He invited Bernanke and his wife and me to sublet the house with him, which we

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### ► Present Position

Henry and Lucy Moses Professor of Economics, New York University (on leave); Wesley Clair Mitchell Visiting Professor of Economics, Columbia University

### ► Selected Previous Positions

Visiting Professor, MIT (2002); Visiting Professor, Yale University (1997); Visiting Professor, Princeton University (1993); Assistant Professor, Associate Professor, and Professor, University of Wisconsin (1981-1989); Assistant Professor, Cornell University (1978-1981)

### ► Education

B.A. (1973), University of Wisconsin; Ph.D. (1978), Stanford University

### ► Selected Publications

"The Financial Accelerator and the Flight to Quality," *Review of Economics and Statistics*, 1996 (with Ben Bernanke and Simon Gilchrist); "Agency Costs, Net Worth, and Business Fluctuations," *American Economic Review*, 1989 (with Ben Bernanke); numerous other articles in such journals as the *Journal of Money, Credit and Banking*, *Journal of Monetary Economics*, *Journal of Political Economy*, and *Quarterly Journal of Economics*

did, and that's how I got to know Bernanke.

**EF: The Fed, as you know, has been buying and selling private securities on a significant scale since the financial crisis. You've suggested that once a crisis calms down, the buying and selling of private securities should be carried out by the Treasury Department rather than the Fed. Why is that?**

**Gertler:** There are politics involved in the holding of private securities, and you'd like to keep the Fed as independent of politics as possible. On the other side of the coin, the Fed is the only agency in Washington that can respond quickly to a crisis. In this case, the mortgage market was collapsing, the mortgage-backed securities market was collapsing, and so I think it was important for the Fed to go in and act as a lender of last resort, as it did. But then, as time passes, this job should be taken over by a political entity, that is, by the Treasury. That's what happened in the savings and loan crisis; we set up the Resolution Trust Corporation that acted like a public

financial intermediary. Right now, the Fed is acting like a public financial intermediary, and I think that for political reasons, the Treasury is unwilling to assume responsibility for the mortgage portfolio.

So I think it was entirely appropriate for the Fed to get into that market, because it had to fulfill its responsibilities as a lender of last resort, but now it would be better for the Treasury to take it over.

**EF: As a result of its asset purchase programs, the Fed now has about \$2.4 trillion in excess reserves from depository institutions. But since the Fed now pays interest on reserves, the money doesn't flow into the real economy. Have policymakers found a free lunch?**

**Gertler:** The way I think about it is that we had a collapse of the shadow banking system, a drastic shrinkage of the shadow banking system. What were shadow banks doing? They were holding mortgage-backed securities and issuing short-term debt to finance them. What's happened is that that market has moved to the Fed. The Fed now is acting as an investment bank, and it's taking over those activities. Instead of Lehman Brothers holding these mortgage-backed

securities, the Fed is. And the Fed is issuing deposits, if you will, against these securities, the same way these private financial institutions did. It's easier for the Fed, because it can issue essentially risk-free government debt, and these other institutions couldn't. I don't think there's any free lunch going around, other than that it's easier for the Fed to borrow in a crisis than it is for a private financial institution.

**EF: Does the fact that the quantity of reserves is so high matter for how the economy is going to perform in the future?**

**Gertler:** It's possible, as interest rates go up, that the Fed could take some capital losses, as private financial institutions do. But the beauty of the Fed is it doesn't have to mark to market; it can hold these assets until maturity, and let them run off. So I'm in a camp that thinks there's been probably a little too much preoccupation with the size of the balance sheet. It could be a problem if the economy continues to grow slowly, and the balance just keeps growing without bound, but I don't think we're quite there yet.

**EF: Your work with Jordi Gali and Richard Clarida in the 1990s helped to reorient the debate on the Great Inflation and the Great Moderation. The role of monetary policy in these episodes seems self-evident now, looking back. But it wasn't then, was it?**

**Gertler:** I certainly think there was the notion going around that the Fed was highly accommodative in the 1970s, and then Volcker and Greenspan changed that with more focus on inflation. What we did was fairly simple; we basically used the Taylor Rule analysis as just a way to say sharply what was going on.

So I think what we did was kind of straightforward. We just happened to be at the right place at the right time. The Taylor Rule apparatus was there, and the econometrics techniques of Lars Hansen's that we used were there. We were in a good position to say something.

**EF: There was a perception in the 1970s that the price pressure was coming from negative shocks, namely oil price shocks. Did you feel you were swimming upstream to some extent in telling your story that it was monetary policy?**

**Gertler:** Not really. I think the conventional wisdom of the time was that oil shocks, and this goes back to Friedman, had put on transitory pressure, but that you needed monetary policy to accommodate it and make it persistent. We were able to use this really simple setup to clearly show

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what was going on, but I think the ideas were certainly floating around at the time.

**EF: What do you think are the most important questions about the role of finance in the macro-economy that are still open at the moment?**

**Gertler:** I think that the basic questions are still open. The first is,

what do we do ex ante before a crisis? How should regulation be designed? That's a huge question that we still haven't figured out. For example, what's the optimal capital ratio for a financial institution? And, second, how far should the regulatory net be spread to cover every systemically relevant financial institution? How do we figure out which ones are and which aren't? When we lay down a regulation, how do we figure out whether some financial institutions are going to get around it?

Then what do we do ex post? When we intervene, we want to intervene to help prevent a crisis from creating a recession or depression, but on the other hand, there's an issue of moral hazard. Just knowing we are going to intervene is going to make some financial institutions take more risk. I think those questions still largely haven't been answered.

**EF: As you know, Congress addressed many of those questions in the Dodd-Frank Act. Are there aspects of it that you think are particularly ill advised or well advised?**

**Gertler:** The first order thing is we needed to do something like Dodd-Frank. If we had gone through this crisis, one where we bailed out many large financial institutions, and then left it at that, it would have been laying the seeds for the next crisis. So something like Dodd-Frank was desperately needed. There was no simple way to do it cleanly, and there's still a long way to go, but it was an important first step.

**EF: You mentioned capital requirements. Is there a sense that capital requirements and related requirements in places like Basel III are chosen in a way that isn't firmly grounded in empirical work?**

**Gertler:** I'm reminded of a comment Alan Blinder makes. There are two types of research: interesting but not important, and incredibly boring but important. And figuring out optimal capital ratios fits in the latter category.

The reality is that we don't have definitive empirical work, and we don't have definitive theory that gives us a clear answer.

**EF: Moving to another side of your work, you reportedly persuaded the president of NYU, John Sexton, in**

**the early 2000s to make a major bet on NYU's economics department. Is that what happened, and if so, how did you make the case?**

**Gertler:** It's nice to tell the story that way, but let me set the record straight: It came from Sexton. He saw that our department had been doing well, and there were a number of people who contributed to our department doing well in recruiting over the years. Jess Benhabib played an important role. I was also involved. Douglas Gale was another; he was chairman before me.

Because our department had been doing well, and because Sexton was looking to make a splash, he turned to economics. He figured economics was a high-profile field and we'd shown good judgment in our hiring. He also figured out that economics is relatively cheap because we have so many students.

**EF: Having reached the decision to invest in economics, what guidance did he give you to build up the department?**

**Gertler:** Just to be aggressive. We were lucky Tom Sargent came along. Nobody could believe it at the time; usually, when you recruit, the batting average isn't very high, and it's lower the greater the stature of the person you're going after. But Sargent had expressed some interest. He had offers at the time from MIT and Chicago, and we thought there was no way he was interested in us, but he kept telling us he was. Sure enough, it worked out, and that was probably the key. Then we had a number of other good people come.

**EF: What were the biggest challenges in attracting talent to an economics department that wasn't yet in the top tier?**

**Gertler:** In my own case, what attracted me to NYU in 1990 was that they had a couple of really good researchers, Boyan Jovanovic and Jess Benhabib. I looked at them and said, "Well, these guys are very successful, so even though it's not a top-ranked department, I could come here and do well."

Part of the recruiting strategy was to play off of New York. The city was very attractive to Europeans and South Americans. You look at our department and see there's a large mixture of people from these countries. And then of course when Sargent came in 2002, that kind of changed things. [Sargent received the Nobel Prize in economics in 2011 with Christopher Sims of Princeton University.]

Another thing we did at NYU is we were very eclectic. We didn't want to be in one camp or the other; we just wanted people who were good, and whose work everybody would read. I think a number of other departments, if I may

say, are following that style. When I first came out, you had "freshwater" economists from the Midwest — Minnesota, Chicago, and so on; you had "saltwater" economists on the East Coast. If you look at the field now, those distinctions have just blurred, and I would say our department was one of the first to make a strong effort to blur that distinction. You have an honest competition of ideas.

**EF: Was there a time, as this was unfolding, when you realized that people seemed to be looking at NYU differently?**

**Gertler:** I found the most interesting barometer was the graduate students, when the quality of graduate students we were drawing really improved. Now the faculty jokes, but it's not completely joking, that they're not sure they could even get accepted into our department now. I would say that the clearest signal was our ability to attract graduate students.

**EF: What do you think about the role of blogs in facilitating or hindering communication among economists? And between economists and non-economists?**

**Gertler:** I occasionally read the blogs, but more for entertainment than to learn something. When they're describing different opinions about the economy and what might be going on, I find that kind of interesting. As a place to have scientific debates, I'm not so sure.

**EF: With regard to your influences, you mentioned Professor Nichols at the outset. Were there others who were strong influences on you in your development as an economist?**

**Gertler:** There was a spectacular group of macroeconomists in the cohort ahead of me. I think there were three in particular who had a lot of influence, namely Tom Sargent, Bob Hall, and John Taylor. The common denominator of the three is they all engaged in significant debates in macroeconomics; they all asked significant questions. And they all in their work used a mix of state-of-the-art theory and empirical methods. For me, they were very good role models.

Then, I've been fortunate to have, throughout my career, excellent co-authors. Early on, I met Rao Aiyagari when I was an assistant professor at Wisconsin, and he really educated me as to the developments and methodology coming out of Minnesota, which I had totally missed out on in my Ph.D. training. Then I also associated with Ben Bernanke, and of course that was a great experience. For me, working with Bernanke highlighted most of all the importance of asking good questions and backing up the answers with data.

**EF**