Reinhart, Rogoff, Research, and Replication

Arvind Subramanian says the flap over the Reinhart-Rogoff conclusions on debt and growth underscores the need for rigorous replication of economic research before it is published.

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Steve Weisman: An unusual controversy has arisen over research undertaken by Kenneth Rogoff of Harvard and Carmen Reinhart, also of Harvard, but formerly of the Peterson Institute, about debt ratios and economic growth. The controversy has raised questions about the nature of economic research that I want to discuss today with Arvind Subramanian, a senior fellow at the Peterson Institute. This is Steve Weisman. Arvind, let’s open by asking you to explain this controversy.

Arvind Subramanian: The controversy relates to a piece of research that Carmen and Ken did almost as a follow up to their excellent book, This Time is Different. And in this piece of research, they showed that if debt exceeded 90 percent of GDP, growth declined quite sharply. So they established a kind of correlation between growth and the level of debt to GDP.

Steve Weisman: For countries.

Arvind Subramanian: For countries

Steve Weisman: And this research was cited by many people who are worried by rising debt in the United States.

Arvind Subramanian: That’s an understatement, Steve. I think this piece of research was seized upon by those who were very concerned with fiscal issues, with fiscal sustainability. And that was true not just in the United States. A few years ago, for example, [Representative] Paul Ryan quoted it, many Republicans quoted it, and of course across the pond [Prime Minister of the UK] David Cameron, [European Commissioner for Economic and Monetary Affairs] Ollie Rehn, you name it, all those who were in favor of consolidation and austerity seized on this piece of work as kind of definitive evidence that their point of view was correct.

Steve Weisman: It’s rare that a piece of research like that -- published in the National Bureau of Economic Research or the NBER, right?

Arvind Subramanian: As a working paper, yes.

Steve Weisman: as a working paper -- could have such a huge impact. But it was testimony to the reputation of the authors and to their record of doing very thorough and unchallengeable research. But now it has been challenged. So what does that tell us about the process of producing economic research? After all, it was a working paper, so by definition people are invited to do their own-

Arvind Subramanian: Due diligence.

Steve Weisman: Yes, due diligence and trying to replicate their study.

Arvind Subramanian: At one level one could argue that the process of scientific inquiry worked. They did a piece of research, they put it out there, people came back and examined it, scrutinized it, found flaws in the research and so Max Planck said, “A sign of progress is one funeral at a time.”
It's a good example of that. I think Ken and Carmen are going to be themselves, quite care-
ful about how they do research in the future. Given the publicity they've got, the adverse
publicity, so might others. So you could say that this is how the process should work.

Steve Weisman: The system worked.

Arvind Subramanian: The system worked. But there are two problems with it. One is that I think they got a
pass even when they kind of published it in the initial reviews because they had such
sterling and stellar reputations. The way I like to put it is, if lesser authors had done the
same piece of research, the Ayatollahs of the Academy, would either have completely
ignored it or skewed it for merely establishing a correlation and saying that, “This means
nothing, there's no causation, etc.” So that's one problem.

But I think the second problem is that, even if this process worked ex post facto,
maybe there were consequences meanwhile. And we don't say we won't have product
safety standards because manufacturers will do something really damaging, will have
the incentive not to do that, because they will suffer reputation costs. So the way I like
to put it is, when in the marketplace for ideas, where super stars are involved, there's
market failure and we need something to fix that.

Steve Weisman: What do you propose?

Arvind Subramanian: I think one idea I have is the following: This is just an example illustrative of what I’m
saying. You have the National Bureau of Economic Research, a highly well regarded and
probably the most prestigious research institute in the country and even their working
papers have a very good reputation.

The problem is that because there are two super stars involved, it's not so much their
fault, as to the rest of the world thinks that whatever they do is actually high quality.
There's a presumption that's the case. What I’m saying is that maybe the NBER should
have a replication bureau, staffed by very bright graduate students and especially top
notch academics, when they do empirical research, should, even before they bring it out
as a working paper, submit it to this replication bureau. These bright graduate students
will check the research, make sure that there are no obvious flaws or mistakes. And then
and only then would this be put out as a working paper.

It would be good for the super stars, I say, because it's kind of noblesse oblige. If you
have this power of being a super star, it comes with some responsibility and for the
NBER too, it's kind of a way of maintaining its reputation and integrity for producing
impeccable un-challenging research.

Steve Weisman: Arvind, you’ve produced a lot of research. I’ve read your papers, I’m happy to say that
many of them are beyond my comprehension. Have you ever found somebody coming
along, doing a replication of research, finding a flaw in what you’ve done?

Arvind Subramanian: In fact, I have two papers, actually three reasonably well cited papers. We've shared the data
with people and I think it's fair to say, especially in these three big papers that I wrote, are
the most highly cited papers, there have been no serious problems. But I think that it's not
that I'm any more immune to errors than anyone else. I think we all make mistakes, but I
think the advantage of having this kind of pre-publication scrutiny is that then researchers
themselves become kind of extra careful. I think you need some kind of ex ante incentive,
not just the reputation or a cost problem to, I think, maintain those high standards.

Steve Weisman: I emphasize in closing though that we're not, you and I, discussing the merits of the
criticism of the Rinehart-Rogoff paper, whether debt does impede growth or not, which
is a principle that many people embrace even if they question the methodology in this study. Am I right?

Arvind Subramanian: That's correct. I think people generally agree that too much debt is bad. I think the only controversy in this case was whether there's a sharp discontinuity at the 90 percent debt to GDP level, which the research was claiming.

Steve Weisman: Thank you, Arvind.

Arvind Subramanian: Thanks, Steve.