Solving History's Puzzles

James L. Rowe Jr. **profiles Carmen M. Reinhart, who focuses on facts and history**

HAD Miami Dade College offered a concentration in fashion design, Carmen Reinhart might never have become an economist.

Reinhart—the world's most-cited female economist and coauthor of one of the most important economic books of the past decade—studied fashion merchandising instead.

"I like art a great deal, and I like drawing. And I thought that, well, I really didn't go to the right school to become a fashion designer. So, let me see whether I like fashion merchandising."

She didn't.

"Fashion merchandising is how to become a buyer. It has really little to do with any kind of design . . . the artistic part of it." She was convinced she'd made a poor choice.

But the merchandising curriculum required her to take a course on the principles of economics. Her instructor, "a crazy old Marxist," paired a standard textbook with Douglas F. Dowd's critique of U.S. capitalism, *The Twisted Dream*. "And I found it fascinating . . . . I didn't make a decision, 'Oh, I'm going to become an economist.' No, I made the decision that I was going to take more economics courses and see how I liked them. And I did."

That started Reinhart on a rise through the economics profession that included stints on Wall Street, the International Monetary Fund, and academia—including the University of Maryland and her current home, the Kennedy School at Harvard University, where she is Minos A. Zombanakis Professor of the International Financial System.

It was during her four years at the now-defunct investment bank Bear Stearns that she developed an interest in the issues that have dominated her research: banking and financial crises and their ripple effects (contagion); capital flows; indicators of world business cycles; and debt (sovereign and private). Mexico defaulted on its massive foreign debt only six months after Reinhart joined Bear Stearns in 1982. "And, boy, was that a learning experience, being in the financial markets and seeing the ripple effects, the contagion, the impact on banks, the volatility. . . . It had a real lasting impact on the things that I would be interested in."

Reinhart's path is not well worn by economists. In a profession dominated by theorists and model builders, she made her mark by finding, mining, and organizing data.

But she has been in the middle of a firestorm recently over how she and coauthor Kenneth S. Rogoff handled data in a paper that found that when the ratio of government debt to GDP exceeds 90 percent, it begins to become a drag on long-term economic growth. Economists had debated the finding since the paper was first presented in early 2010. But after several economists at the University of Massachusetts last

April said they had found calculation and methodological errors and "selective" data omissions in the paper, the academic dispute became a public controversy.

Reinhart and Rogoff acknowledged a calculation error but said it did not affect their overall results. They said the other critiques were off base and that their conclusions are solid.

Against the grain

Reinhart has a history of going against conventional wisdom. Her first well-known paper, in 1993—with fellow IMF economists Guillermo Calvo and Leonardo Leiderman—questioned the prevailing belief in the IMF and elsewhere that capital was flowing to Latin American countries because of their good economic policies. Instead, the economists postulated, external factors—including a benign global environment and low interest rates—sparked the investment flow, which could stop on a dime if conditions changed. Had they looked at Asia, they would have seen the same issues, Reinhart said. The trio were right: External conditions changed, and, starting with Mexico in 1994, emerging market economies—including in Asia in 1997, Russia in 1998, and Argentina in 2001—experienced a "sudden stop" in capital flows.

Several years later, Reinhart and fellow economist Graciela Kaminsky questioned the common belief that crises are spread from one country to another mainly via trade links. Instead, they found such contagion was rooted in then little-studied financial channels.

According to Calvo, now at Columbia University and one of the profession's foremost theoreticians, "Carmen does not fit the mold of the typical academic economist, who spends much of his or her time exploring pointless extensions of the dominant paradigm. She is an original, driven—first and foremost—by strong intuitions, which she then tests by going from a thorough search of available evidence to the application of state-of-the-art econometrics."

Reinhart said she never made a calculated decision to emphasize the empirical over the theoretical; it is just who she is. "Data is good. It is central to me. In the end, it is about solving puzzles, about solving mysteries. And the way I go about solving mysteries is [by] delving into data and looking for empirical regularities, for recurrences of patterns. . . . You know, when Sherlock Holmes says, 'The game is afoot.'"

It was that ability to unearth and organize economic data that enabled Reinhart and Rogoff in their 2009 best seller *This Time Is Different: Eight Centuries of Financial Folly* to provide a sweeping look at hundreds of economic crises—debt, banking, currency, and inflation—in 66 countries from as far back as the Middle Ages to today. The book—which like the rest of Reinhart's two decades of prolific research has not been caught up in the controversy over the 2010 paper—shows that serious economic crises are devastating but occur infrequently enough that, as economist Alan Taylor put it last year in the *Journal of Economic Literature*, "recent experience can be an unfaithful guide for scholars and statesmen alike"—the reason the warning signs of the five-year-old global financial crisis were largely ignored.

Reinhart and Rogoff's research (half the book is data, much of it assembled from painstaking searches of obscure sources) revealed the vast similarities over centuries in how economic crises build and how they unfold. But an indifference to, ignorance of, or disregard for historicity allows economists and policymakers to explain away time and again harbingers of bad times. Reinhart and Rogoff called it the "This Time Is Different Syndrome," which they said "is rooted in the firmly held belief that financial crises are things that happen to other people in other countries at other times; crises do not happen to us, here and now. We are doing things better, we are smarter, we have learned from past mistakes. The old rules of valuation no longer apply."

Beware of debt

One major implication of their research, Reinhart said, is that policymakers must "beware of debt cycles, beware of indebtedness cycles, beware of surges in credit, beware of surges in debt—private debt becomes public debt. Once you get stuck in a full-size banking crisis, you don't get out of it quickly." And it is here that she said their results "have not been really fully represented. . . . We make the point that when you're mired in a debt overhang—public, private, a combination of the two—seldom do you get out of it without some element of restructuring." And that goes not only for emerging markets but for advanced economies, too.

Their research was coming to fruition as the U.S. mortgage market was collapsing in 2007—the opening act in the global financial crisis that rivals the Great Depression of the 1930s. In a paper they presented to the annual meeting of the American Economic Association (AEA) in January 2008, Reinhart and Rogoff demonstrated that common economic indicators for the United States—inflation in asset prices, growing indebtedness, big current account deficits, slowing economic growth—signaled a country poised for a severe financial crisis.

"Some people dismissed the idea that a crisis like that could happen in the United States," she said, although others had their attention "piqued" by the paper titled "Is the U.S. Subprime Crisis That Different?" After the presentation, she said, she and Rogoff concluded that if no crisis occurred they might look foolish. "But, you know, it happened."

A year later—not long after the failure of investment bank Lehman Brothers, the seizing up of money markets, and the global spread of the financial crisis—the authors appeared at the January 2009 AEA meeting with another disquieting prognosis based on the massive historical record they had constructed. Their paper, "Aftermath of Financial Crises," made two points that invited skepticism at the time but later proved accurate. The first was that recessions that start in such crises "are very protracted and severe," she said. The other was that there would be a massive increase in government debt: Their analysis showed that debt had nearly doubled after adjustment for inflation in the three years following each major national crisis since World War II.

She said many economists and policymakers had called them alarmist for predicting that debt would grow so much, but in fact, she said, some countries have had much bigger increases.

It was the paper they presented at the January 2010 AEA meeting that was to prove more controversial. Many economists had been skeptical of the 90 percent tipping point—especially for countries like the United States that borrowed in their own currencies. Critics were also dubious about whether debt caused the growth slowdown or vice versa. In any event, the paper became part of the intense political debate over austerity versus stimulus—although it took no position on either—cited by politicians and others advocating reduction in government deficits.

The University of Massachusetts economists claimed the paper, "Growth in a Time of Debt," had analytical flaws and that it selectively excluded available data and used unconventional techniques to weight statistics. That touched off a severe round of criticism from those who support stimulus during this period of slow economic growth—including economic pundits, even late-night talk show hosts.

Reinhart and Rogoff acknowledged in several statements that they made a spreadsheet error, but said it did not affect most of their calculations nor their central finding: that high levels of debt become a drag on growth. They also said the statistical weighting techniques were not unconventional and bristled at the suggestion that they had omitted data to strengthen their argument. The missing data, they said, were not available or not fully vetted when they presented the first version of the paper, but had been added to the database on their website and to later iterations of the paper (including an article in the AEA's *Journal of Economic Perspectives* in 2012 that tracked the debt-growth relationship for 200 years). Their findings remained the same.

Fleeing Cuba

Reinhart called her early life a "typical American immigrant story." Born Carmen Castellanos, she and her parents fled what they perceived as an increasingly dangerous situation in Cuba in 1966. Initially, she said, her middle-class family had felt no immediate threat from the 1959 revolution led by Fidel Castro that overthrew dictator Fulgencio Batista.

But as time elapsed "what was a fairly chaotic initial period became more organized; it was clear that repression came hand in hand with greater organization."

Her brother, 11 years her senior, "got in trouble for saying something that was considered antirevolutionary" and left a year before the rest of the family. He eventually settled in Pasadena, California, where she and their parents joined him.

It was a rough initiation to a new land—their white-collar existence became decidedly blue collar. Her father, an accountant for a brewery in Cuba, traded an eyeshade for a hammer and became a carpenter. Her mother, who had not worked outside the home, became a seamstress "working on draperies—not clothing, but draperies. To this day I have a fascination with draperies. I can't walk into a room without noticing them," Reinhart said.

The move was particularly hard on the 10-year-old girl. Within 60 days of her arrival, Reinhart contracted rheumatic fever: "My whole left side was paralyzed . . . . I'm left-handed, so saying that the left-hand side was paralyzed is not trivial. And it took me a while to really overcome that. I lost a year in school, and between the trauma of all that and the fact that my English was virtually nonexistent, it wasn't exactly a smooth transition."

But she settled in, made friends, learned English, and began to do "really well in school," only to be uprooted again four years later when the family moved from Pasadena to south Florida to be closer to relatives who had recently emigrated from Cuba. The relocation permitted the encounter at Miami Dade that shifted her interest from fashion to finance and economics.

Reinhart moved on to Florida International University,

What I really liked was getting my hands around an idea.

where she met Peter Montiel, an instructor who was finishing up his Ph.D. from the Massachusetts Institute of Technology. Montiel, now an economics professor at Williams College, guided her through her course work. "It became clear to me I really wanted to continue in graduate school," Reinhart said.

Montiel, who is also Cuban, said he returned to Miami to teach Cuban students who for cultural and family reasons usually did not leave home to study. Florida International was a public university full of such bright students who could have studied anywhere. And of them, Reinhart, he said, was the "star." Montiel remembered that she was "intellectually curious and had a great capacity for hard work. She did whatever she needed to do to learn."

She graduated in 1978 and headed to Columbia University—a decision driven as much by her mother's worries about her unmarried daughter leaving home as by Columbia's star-studded faculty. "I was sort of brought up in the style of fifteenth-century Spain," she noted. There were cousins in New York "who could keep an eye on me."

At Columbia she met her husband, Vincent R. Reinhart, who has held top positions at the Federal Reserve Board and is now chief economist at the giant financial services firm Morgan Stanley. They have collaborated on a number of papers over the years.

In 1982, after receiving two master's degrees in economics and completing the examinations required for a doctorate, Reinhart abandoned academia to become an economist at Bear Stearns, a midsize investment bank that a quarter century later became an early casualty of the global financial crisis. She had just gotten married and wanted to earn decent money, plus she had had a long fascination with financial markets. Within three years, she was chief economist.

But by 1986, she was frustrated, she said, and realized the life of an investment bank economist was not for her. "What I really liked was getting my hands around an idea—what one would call in our jargon a research topic—and then trying to do something with it." But on Wall Street, "you didn't really have time to go deeply because you had to move on to the next day's topic and the next day's topic and so on." So she returned to Columbia and quickly finished her dissertation under the guidance of Nobel Prize winner Robert Mundell.

Then it was on to the IMF. She had arrived at Bear Stearns just before the start of the Latin American sovereign debt crisis, and from there was fascinated by the IMF's role in trying to solve the years-long crisis. "I wanted to try policy." It was the first of two stints at the international financial institution, where she started as an economist in the Research Department.

She wrote several important papers, including the controversial Latin American capital flow analysis with Calvo and Leiderman in 1993. When judged by citations (as counted by Google Scholar), the paper that has had the most impact on the profession was one first drafted in 1995 with Kaminsky and published in the *American Economic Review* in 1999. "The Twin Crises: The Causes of Banking and Balance of Payments Crises" found that problems in a country's banking sector typically came before a currency crisis, which then made the banking crisis worse. And both came after a long economic boom that was "fueled by credit, capital inflows, and accompanied by an overvalued currency." The first draft was done just after the 1994 Mexican collapse. By the time the paper was published, several Asian countries had severe financial crises. The paper basically laid out "why a banking sector problem like what Thailand had [in 1997] will undermine the exchange rate and a banking crisis will morph into a currency crash," she said.

"Twin Crises" also explored the antecedents of a crash—indicators whose behavior might predict a crisis, which she and Rogoff would study more thoroughly in *This Time Is Different*. And it also sparked Kaminsky's and Reinhart's interest in contagion. Most researchers then believed that crises spread from one country to another via trade links. In their paper "On Crises, Contagion, and Confusion," "Graciela and I were saying, 'I think the finance links are the big story here, and the issue with common bank lenders.'" She said she saw a replay of the 1982 start of the Latin debt crisis, when banks (mostly U.S.) cut off lending not just to Mexico but to all Latin America borrowers. "It was the same story repeating itself in Asia," following Thailand's collapse, except the banks were Japanese. "They start rebalancing their portfolio risk, and pulled out of Korea, pulled out of Indonesia."

In 1996, Reinhart left the IMF and joined Calvo—then at the University of Maryland. It would be her academic home until 2010, when in quick succession she went to the Peterson Institute for International Economics and then to Harvard.

She returned to the IMF in 2001, enticed by Rogoff to be his deputy shortly after he was named chief economist and director of the Research Department. And it was at the IMF that the two hatched the idea for *This Time Is Different*. The thesis had a long gestation period—back as far as the 1993 paper with Calvo and Leiderman, when Reinhart first confronted the "This Time Is Different Syndrome." The three economists posited that capital flows were not a new phenomenon, were the result of external factors, and could be reversed quickly. "The pushback we would get was, you know, this time is different. . . . It's not like the late 1970s." It was the same in Asia several years later, when many scoffed at the threat of large external deficits and capital inflows. The general belief in Asia was that financial crises "do not happen here. They happen in Latin America," Reinhart said.

Their ideas were further crystallized in a paper she and Rogoff wrote in 2003 with IMF colleague Miguel A. Savastano. In "Debt Intolerance," they found that although debt problems and defaults were thought to be "the domain of emerging markets," advanced economies had a similar history "going back to the fifteenth century." Before they left the IMF in 2003, Reinhart and Rogoff decided that this line of work merited a book rather than a paper. But it was not until 2006 that they began to work in earnest to build on the research they'd done over the years.

Reinhart said her investigative efforts were three-pronged. "Day in and day out" she scoured "the Web for references and sources of data," including finding one price researcher who collected ancient information from a monastery's records. She constantly searched AbeBooks, an online font of rare and out-of-print books with sources in the United States, Great Britain, and Canada. "For a long time I'd have daily shipments arriving at my house." And she became a fixture at the library of the Federal Reserve, where her husband was director of the division of monetary affairs at the time. The Fed library was a repository of many obscure economic statistics.

Her husband "miraculously" put together from numerous sources a comprehensive set of almost all the economic data the League of Nations had published. It was her Valentine's Day present that year.

If finding data was painstaking, so was organizing it. "I can't overemphasize what challenges that poses." She recounted one 3 a.m. adventure "counting the number of zeros" in countries that had experienced hyperinflation. "It's a nightmare."

But the hard work paid off, resulting in *This Time Is Different*. The AEA papers in 2008 and 2009 had sparked so much interest that their publisher, Princeton University Press, pushed them to finish. As a result, the book came out in 2009, but with a thorough treatment only of banking and debt crises. They did not have enough time to do as complete as examination of "inflation crises, and currency crashes, and capital controls," she said. A fuller treatment of those issues is grist for another book Reinhart and Rogoff are planning.

That volume is likely to provide further evidence that the economics profession spent too much time theorizing based on data that were too narrow and too recent and, by giving history and data short shrift, in the main missed the most devastating economic crisis in 75 years. ■

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Reference:

Taylor, Alan M., 2012, "Global Financial Stability and the Lessons of History: A Review of Carmen M. Reinhart and Kenneth S. Rogoff's This Time Is Different: Eight Centuries of Financial Folly," Journal of Economic Literature*, December, pp. 1092–105.*