



# “The Global Economy Has Significantly Changed”

## An Interview with Dan Breznitz of the Georgia Institute of Technology

China’s emergence and eventual central role in the global economy have been a source of a great deal of study. But how much of the country’s rise was part of a master plan executed by the central government, and how much was a fortuitous exploitation of existing situations? Dan Breznitz, a professor at the Sam Nunn School of International Affairs and the College of Management of the Georgia Institute of Technology and coauthor of *Run of the Red Queen: Government Innovation, Globalization, and Economic Growth in China*, discusses innovation, economic growth, and the lessons China imparts about other emerging economies.

**EconSouth:** *How would you characterize China’s innovation strategy, and how important has it been to China’s rapid economic development?*

**Dan Breznitz:** Let me just start by saying that one of the problems, I think, that we have when we debate China—in the U.S. and in Europe as well—is exactly the words that you use: “China” and “strategy,” as if China has “a strategy,” just one strategy, and then China leads. While in reality, what we argue in our book is that China’s real development is very, very different than the vision of the central government. So there is a strategy, but it’s not led by the state. It happened because of state actions and because of the political economy of what is allowed and not allowed to do in China and what has happened to the global production networks, if you will—

how we produce services and things. But it’s definitely not what the central Chinese government hoped to happen, and it’s obviously not what they’re trying to do at the moment, which is probably a problem for China.

**ES:** *So when you talk about innovation strategy, really you’re talking innovation strategies, plural. What are the innovation strategies that have been successful for China?*

**Breznitz:** For China there has been one strategy that has been truly successful for organizations and for China as a whole. There are variations of the strategies—and indeed, every region of China, or the more successful ones, has a very different model, or subvariant, of that strategy. We call this strategy “the run of the red queen.” Basically, it’s to accept the technological edge, if you will, and to have the capabilities and capacity to play on that edge without trying to push it forward, which will mean that Chinese companies can immediately offer services, second-generation innovation, based on those new technologies that have been developed elsewhere. So it will be either from a very quick copier and changer of ideas, by doing [something like] Google. I don’t know if any one of you in the Fed has an iPhone, but I presume that at least at home you have an iPhone. The iPhone would never be created without China, the way we think about it. If you think about what happened with the iPhone 4, and the problem of the antenna, and

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**Other** Breznitz has been an assistant professor at Georgia Tech’s Sam Nunn School of International Affairs since 2005. He is also program director at the Center for International Strategy, Technology, and Policy and academic director at Georgia Tech’s Sustainable High-Tech Cluster Initiative. Besides *Run of the Red Queen*, he is the author of *Innovation and the State: Political Choice and Strategies for Growth in Israel, Taiwan, and Ireland*.

you look into the details, you found out that the Taiwanese, the Chinese producer, had told them that there's going to be problems with this antenna. Therefore, the Chinese counterpart, or partner, of Apple is not just an assembler. It does a lot of the high-level design, it has a lot of knowledge, which Apple does not have, about how to make an iPhone work together, and what the problems will be even if you get specs from Apple.

**ES:** *So, China's strategy is not to do the new product invention, but rather to work on the innovation on the production side.*

**Breznitz:** On the production side and on follow up, if you want to call it follow up, or changing innovation as well. So once you develop the product or an idea, and it's obvious that there is a market for it, there is a very large set of second-generation innovation that starts to happen, and all those innovations are the reasons why we can sit in this office. Each one of us has our mobile technology that allows us to do things that 30, 40 years ago, a room full of computers would never allow us to do, and we hold it now in our hand. A lot of what caused this to happen is what we disdainfully called second-generation innovation. But it's true innovation. It's just not—if you want to call it this—invention genesis. And China has been extremely good at going up from the assembly to the logistics, how to produce stuff. And it has been able to do that also because of the way we do things. What people call the global economy has significantly changed since the '70s and '80s. If you want to understand China, you have to understand two things. [First,] you have to understand what has happened and is happening in China, which—let us all remember—is still officially a communist economy, ruled by the Communist Party, and [second,] what happens in the way that stuff

is being traded, sold, and produced worldwide, both products and services. Those two processes led to what China is today. And as China grew, it of course changed the way we make our things.

**ES:** *So is there something about that strategy that other emerging markets can adapt?*

**Breznitz:** To a certain degree, yes, and some of them have already adapted—we all heard that, at least in the last four or five years. We named Vietnam at least once, but other countries as well. You're the Latin American expert at this table. But to some degree, if you think about other economies growing, you can see that some of them are doing very similar things, if not necessarily in ICT [information and communication technologies], which is the domain which I focused on in this book—commodities, for example, extraction of commodities, mining technologies. Chile didn't invent the mines, but they certainly—from what I know, and you should correct me if I'm wrong—have the leading companies in mining technologies, including remote-mining technologies. So, the Chileans did not invent the remote controls and they obviously did not invent mining, but now they're leading in those technologies.

**ES:** *When it comes to commodities, trade between China and Latin America is asymmetrical in the sense that Latin America ships a lot of primary products to China. China sells Latin America finished products.*

**Breznitz:** Sounds just like the U.S. and Latin America a few years ago.

**ES:** *Well, governments in the region are not all happy about that. Brazil's president recently complained to the Chinese and said, "We want to sell you more value-added products. We need to have more balance with respect to*

*trade." What are the prospects of that happening?*

**Breznitz:** Actually, higher than what they were in the past, for a few reasons. Some of it is political. Mattel, the company making Barbies. You have kids. Do you have any daughters, by any chance?

**ES:** *No daughters.*

**Breznitz:** Do you know anyone who has daughters and tried to Barbies two or three Christmases ago?

**ES:** *Was there a shortage of Barbies?*

**Breznitz:** No, there was a problem with a lead paint in China. Just one region in China, but it immediately means that Christmas sales by Mattel were...let's call it "under stress." It ended up with Mattel actually having to apologize to the Chinese, and Mattel finding out that they have no option because they have no clue how to produce their Barbies anymore and have no capacities to produce them. My guess is that—with more and more of those accidents happening, nuclear catastrophe in Japan and health scares—some of the most faithful CEOs of American companies who trust China might want to do various backup options, which means moving some of the production to other places. That's one opening. The second is that China itself, if there was no financial crisis, probably would have even tried to get rid of the really low end. You saw it in the Pearl River Delta, where they didn't want to do the simple plastic injection anymore. Just before the financial crisis they forcefully spoke about plastic toys. A lot of those companies went out of business, and the government actually wanted them to get out of business. And then the financial crisis happened and they changed track. But that's another opening. And you spoke about Brazil: It probably has much more

sophisticated companies than some of the other emerging countries. And they should be able to develop or retain some capacities, which I'm not sure we have done in the U.S.

**ES:** *So what do China's innovation strategies mean for the United States?*

**Breznitz:** Let's go to the optimistic side and then go the pessimistic side, okay? So on the optimistic side, they are complementary. So I have a good friend and former mentor called Ed Steinfeld, published a book called *Playing Our Game*, and he is very upbeat about it. We just talked about the fact that if you want an iPad at a price you can actually afford and have it in the market two or three months after somebody thought about it, you must have China. There's no way around it, and therefore we get very large financial gains. China gets a lot of jobs. And supposedly both sides are happy. On the slightly flip side of this, this means we that we have true interdependencies. So in the past, an economist or political scientist talked about economic interdependencies. Norman Angels,

just before World War I, explained why we will never have war because everybody will be poor again. But now we have true real interdependency. You can't really have your products done—even probably most of the things you wear—without China. And it goes into some critical domains as well, which means that while the economics logic will suggest that we are going to have wonderful future and everybody will sing kumbaya and we all grow together, trust issues—the nature of power means that the ability to have misunderstandings and have them accelerated and for a very good reason, very quickly—are also heightened. So a stupid row about a technology standard might end up causing a huge trade war. Add to that that China is big and growing, and at some point—probably already—will want to be recognized as a new global power. I'm not sure even most of the Chinese actually agree about what China should do in the world as it really tries to understand what it is. You have a recipe for disaster that will be true disasters because we can't have some of our basic products without China. I'm not

sure they can have some their products, or at least new innovation, without us. So on the one side, if we have great leaders who work very carefully on understanding each side and make sure you have a communication level that will prevent those misunderstandings from escalating—because those misunderstandings will happen, probably every week on something—great, and especially if we've re-found our balance in the U.S. and realized how to create jobs, which is a completely different discussion. If we don't, and especially if both sides don't have an agreement about how the world should look two, five, ten years from now, we might be entering a very interesting period, in the Chinese proverb's sense of the word: "May you live in interesting times," which is supposedly a horrible curse. I'm not sure I ever heard it in China, but we claimed it's Chinese, so be it.

*This interview was conducted by Stephen J. Kay, director of the Atlanta Fed's Americas Center.*