JOANNE MYERS: Good afternoon. I'm Joanne Myers, director of Public Affairs programs, and on behalf of the Carnegie Council, I would like to thank you all for joining us.

It's a pleasure to introduce our speaker, Zachary Karabell. I've known Zach for quite some time, and what has always impressed me about him is his ability to find a wide range of unusual topics to write about, and to write about them in a way that challenges common assumptions and reveals a depth of knowledge that is accessible to a broad audience.

His articles have appeared in Newsweek, The Wall Street Journal, The New York Times, the Los Angeles Times, Foreign Affairs, and The Washington Post, and he is the author of 11 previously published books. Of late, he is perhaps best known for "The Edgy Optimist," a column he writes for Reuters and The Atlantic. We are delighted to welcome him back to the Carnegie Council, this time to discuss The Leading Indicators: A Short History of the Numbers that Rule Our World.

Last Friday, The New York Times sent around a breaking-news alert that read, "The American economy added 175,000 jobs last month, a pace that was better than economists had expected and well above the anemic job gains recorded in December and January." It went on to say that, still, the latest figures for hiring were down from last years' average of roughly 190,000, but fell a bit short of what policymakers had been hoping to see at this stage of the recovery.

The February report by the Labor Department had been eagerly awaited and was viewed as a wildcard, with economists struggling to estimate the impact of wintry weather in many parts of the country, as well as seasonal adjustments by government statisticians.

In The Leading Indicators, Zachary looks at figures like these and reveals how governments, including our own, have come to place such reliance on numbers such as GDP, GNP, unemployment and inflation rates, and more, as he reminds us just how much information they leave out. These indicators, he tells us, are often misunderstood and misapplied. Nevertheless, they influence our political debates, our business decisions, our investment choices, and purport to define what matters and what is of value in our lives.

Because we put so much stock in them, we fail to realize that they were designed to address the urgent challenges of what is now a bygone era, long before the data explosion of the 21st century. The indicators devised at the time of the Great Depression and after were subject to significant
limitations. Over the years, these limitations have become more pronounced as the nature of the economy, the state of technology, and the widespread availability of all sorts of data have changed. The indicators of the past are not up to measuring the world we live in now.

Zachary believes the solution lies in finding something new to balance the old, indicators that can be adapted to the digital age, take advantage of the vast amount of data available, and can be used to better gauge a nation’s genuine well-being.

Please join me in welcoming a person who always brings a unique perspective to any discussion, our speaker today, Zachary Karabell.

Thank you for joining us.

Remarks

ZACHARY KARABELL: Thank you, Joanne and Joel Rosenthal and the Carnegie Council, and all of you for being here.

That was an absolutely precious and perfect summation of my book and my talk. So, questions?

I wrote this book based on just a set of questions that I had had, which was, particularly when I was acting as an investment manager, the degree to which a limited set of numbers disseminated on a regular basis were shaping an immense number of outcomes and shaping our sensibility of what's going on in the world, and that we had come to live in this world that, willy-nilly—whether you are really interested in any of this or not—informs our sense of how we are doing. Are we doing well? Are we doing badly? And often the answer to that question is entirely dependent on what a limited set of numbers tells us is happening—primarily, of course, GDP, but also our unemployment rate, also our inflation rate, interest rates, housing numbers. In the most basic sense of the word, none of us have a personal relationship or a tangible relationship to this thing called the economy.

As I started to think about this and frame the idea for the book, it was also clear that there is no "the economy." It's not a tangible thing. It's not an observable, naturally occurring phenomenon. The idea that it is and that it's something you can measure, assess, plan, and gauge as if it were the laws of physics or naturally occurring phenomena is very much a hallmark of our age, but misses the degree to which the entire framework is just made up. And I don't say "made up" from a negative place, like "it's all just made up," but literally, it is all just made up. The economy, these statistics, these numbers are just a series of statistics and numbers and measurements that a set of human beings invented at a moment in time.

What's even more extraordinary is that that moment in time is a much nearer moment to our present than you would think, given the way in which we talk about these things. There is a casual degree to which we discuss things like the economy with reference to these numbers as if they had always been there.

But Abraham Lincoln didn't get up in 1860 and say, "One nation indivisible whose GDP went up 4 percent." And George Washington and the Declaration of Independence did not say, "We will augment the national good and make sure the unemployment rate is below 6 percent." There were no numbers to talk about these things. There weren't even the concepts behind the numbers to discuss.

All these numbers—every single one that we use so intimately in our lives, that come at us in
metronomic waves of numbing regularity—are the product of the 1930s and the 1940s, and not only the product of the 1930s and the 1940s, but they didn't become woven into our popular sense of who we are and how we're doing well until the 1950s and 1960s.

So within two or three generations, we have gone from a world where no one talked about any of this and no one fundamentally even thought in terms of these concepts to a world where our entire collective sense of "are we doing well/are we doing badly" is deeply framed by this set of numbers.

Well into the 20th century, nations—and nations created these numbers, and in many respects, the U.S. government created these numbers, which then went international and viral (and I'll explain a little bit how)—most countries thought of their kind of success and legitimacy based on land, farming output, men under arms, and their ability to contest other nations and other armies. The idea that the goal of a society was to generate more output would have been alien well into the 20th century.

How did we come to live in this world? The reason I'm curious about how we came to live in this world also starts from a presumption that increasingly the world that these numbers depict and measure—this thing called the economy—is rather distinct and separate from the world that we're actually inhabiting. In many ways, we live in a world that's kind of like The Matrix economy. And I don't mean "matrix" in the sense of a lattice; I mean "matrix" in the sense of that very cool movie that came out in the late 1990s: There's the world that you think you are living in and then there's the world that you're actually living in, and you had to take the red pill or maybe it was the blue pill—it was one of the pills—in order to actually confront reality as we know it.

Now, reality as we know it is not nearly as grim as The Matrix reality, but it is nonetheless similar to but distinct from the numbers world that we think of.

In many ways, it's a book about, and it's something to try to convey to you about, the invention of the economy. In many ways, the economy was invented as well in the 1930s. Yes, there were the beginnings of an economics profession in the late 19th century, but as a phrase, "the economy" basically doesn't exist until the 1930s.

The only way I can say this with any level of confidence is by grace of Google. Google has a tool called an Ngram. Google gives their engineers 20 percent of their time to kind of develop their great thoughts that have no revenue. One of those great thoughts was, if we could digitize every single thing that was written by human beings until the age of copyright, or until about 10 years ago, you can play around with what was going on in the corpus of writing.

So if you type the words "the economy" into Google's Ngram, you will find that from time immemorial—whenever the Ngram begins, 1,000 years ago or so, Gutenbergish—there's basically no mention of this. The phrase is not a phrase. Then suddenly in the 1930s, it does a hockey stick and then continues ascending up through our present day.

That's because until you invent these indicators, until you invent these numbers, there's no "the economy." There are a lot of the concerns about the economy, but there's no "the economy." It took the Great Depression and World War II to spur the creation of these numbers, even though there are antecedents way back.

I actually begin the book with the Domesday Book of William the Conqueror because everyone should begin a book with 1066 and all that, which was one of the first modernish attempts to measure the output of a country. In the Domesday Book, they just went around and tried to figure out how much land the king had and how much farming could be done. Trade and farming numbers
states kept, because that was the primary source of revenue. You needed to know how much farming was being produced and how much trade, because that was the only way you could fill the coffers in order to hire the army.

But well until the 1930s, there was very little else. Throughout the entire 19th century, in fact, there is no meaningfully embedded social concept of unemployment—or employment, for that matter. Most people didn't have jobs; they worked farms. And even if they had a job, the idea of a job is an Industrial Era creation. So for much of the 19th century, classical economics emerges with the belief that there is no such thing as unemployment, because there are always jobs that need doing in a world, pre-20th century, where there's too much stuff to be done and too few people to do it. So if you're not working, it's because you're a vagrant or you're drunk or you're idle or you're incapacitated or you're dead. Even then, there's no concept.

What happens in the Great Depression and World War II is—something bad happens in 1929. It's not called the Great Depression, because it didn't happen yet. Everyone knew bad things were happening, but they didn't quite know what was happening. It was sort of flying blind. Hoover, who had been an apostle of scientific management, is receiving a huge amount of criticism for not doing enough to address how bad things are. But, of course, there's even an argument of how bad things are.

So Hoover allows for an augmented budget for this sleepy Bureau of Labor Statistics to start collecting information about the employment picture in the United States, drawing on some work that had been done in the Progressive Era by people who were trying to support unions in their efforts to extract a living wage from big companies. Early work is done and a little bit of an employment picture is created, which immediately gives Franklin Roosevelt and the adversaries of Hoover, who feel like he's not doing enough, ammunition to say, "Things are really bad, and you're not doing anything about it." So Hoover creates a number that then gets used by his adversaries to defeat him in the election, thereby being hoisted on his own statistical petard.

So you have the beginnings of an employment rate, but it's only the beginnings. There's no unemployment rate. There's no figure. There's no number. There are just early attempts to figure out how you count it, how you define it.

Unemployment is not a counting of someone not with a job; it's a statistical definition of what it means for the system not to provide enough employment for people who want it or need it. You actually have to define unemployment as the absence of a job in the presence of looking for one. Then you have to figure out how long you have to be looking for one in order to be qualified for looking for one. Then it was eight weeks; now it's four weeks. A lot of definitions have to go into this.

Then you have the New Deal to address the issue of employment and farming and banks. If you're going to do all these things that have never been done before, you need to be able to say, "We started with X, and X was bad. Then we spent a lot of money on all these programs. We changed the nature of government. It led to Y, and Y is better." But unless you knew what X was and Y was, there was no way to make that statement.

That leads to the creation of national accounts, national income accounts, which was kind of the brainchild of an émigré Russian economist named Simon Kuznets, who later earns a Nobel Prize for this and had been doing work on this, in a sleepy backwater way, in both the government and academia, and then is called on to infuse this with some national urgency, and is supported by the British at the time, and people like Keynes.
That creates this national accounts system that allows you to measure the output of your economic system, so that Roosevelt could start saying by 1937, "When I came into office, our national income was X, and we did all these things in terms of New Deal programs and now it's Y, and Y is bigger."

Even then, it was a definition of output at market prices. There was a lot that it left out. Those then become the foundation of GNP, which then becomes GDP. In that time, it was simply a measurement of the output of an economic system at market prices. It left out domestic work, women working at home, cleaning, making food. There was a real argument at the time about whether or not that should be included. The decision was made that, because it didn't have a clear market price, we weren't going to measure it as part of national income—with the full awareness that that didn't mean it wasn't part of national economic activity. It just wasn't going to be part of that number.

The final spur in all this, including the spur toward creating an inflation gauge, was World War II. You had these national income accounts, but in World War II, the thing that the United States really needed to know in order to successfully fight after 1941 was how much of its domestic industry could be turned toward war production—how many car factories could be made into tank factories and plane factories and gun factories and ammunition factories—without so imperiling the domestic economic system that you won the war, but your domestic system collapsed.

GDP or GNP, which was an outgrowth of these national accounts, which incorporated government spending and allowed for some measurement of the potential of the economic system versus what was actually being done, was one of the primary tools that gave policymakers the confidence of "we're going to make sure we make this many tanks and this many planes and this many guns, and we're still going to have a domestic economic base that's solid at the end of it," which is why, within government circles, the invention of GDP and GNP was considered one of the tools that won the war, on par, in its own way, with the creation of the nuclear bomb. Whether that's true or not, it's what people have said.

By the end of World War II, you have this nascent framework of employment and GDP and inflation. But they are just tools for policymakers that were designed for certain real challenges in the world. In the 1950s, you got the beginning of the Cold War. (This is like a little potted history of how these numbers came to be.) In the 1950s, the nature of the Cold War that emerges is partly ideological and partly nuclear proliferation, but largely whose economic system is better. If you're going to prove that your economic system is better than the other person's, you need numbers that say, "Here, we're making more stuff than you are. Our stuff is better. Our quality of life is going up."

So the United States and the Soviets and then everyone else start engaging in this "my GDP is bigger than your GDP," "our inflation rate is lower than your inflation rate," "my quality of living is better than your quality of living," "we're hiring more people than you are, more productively."

Meanwhile, you have this world of new nations entering the system, having decolonized and joined the United Nations. The first thing you have to do in the 1950s if you are a new nation—and the first thing you do do—is you build an army, you put people in your national insignia, you design a flag, you probably unveil a national airline, and you start measuring GDP. You start measuring GDP because if you're a new country and you want to go to this new institution called the World Bank or the International Monetary Fund or any other economic institution and say, "Hey, we want to augment our activity," you have to be able to show that the reception of that money will lead to more GDP, will lead to more economic output.

So everybody in the world starts measuring this thing called the economy that hadn't existed 20
years before in exactly the same way, as dictated by the UN framework of national accounts, which comes right out of Kuznets, right out of Keynes, and right out of Great Britain and the United States.

Lo and behold, by the 1960s, we're suddenly living in a world where these numbers are shaping policy, shaping attitudes, and shaping international life. Then you have organizations like *Fortune* and *Forbes* and Henry Luce touting the wonders of this economic system that is America as being the leading part of the world and using these numbers as the fodder for the argument.

In many ways—and I'm going to jump all the way forward—we still live in that world in terms of how we talk about this thing called the economy. But think about it for a minute. All of us have a personal story, we have a personal history that's shaped by when we were born, where we were born, how we were raised, and while that's not determinant, it certainly creates the context that can help us understand how we think of the world through whatever lens we're seeing it through.

In many ways, what we are doing today, by relying so heavily on things like GDP, unemployment, and then this whole suite of private statistics that grew up in its wake, is we are using a really, really good 1950s set of tools that were designed to answer questions of global depression, World War II, and 1950s industrial nation-states that made stuff. We're really, really good at measuring that world, but we're not living in that world.

We have a statistical framework that becomes the entire funnel for how we think of how we're doing and the incentives that we create and the money that we spend and the investments that we do or do not make that all has to go through this aperture of a 1950s set of numbers that are still very good at measuring the output of industrial nation-states in a 21st-century world that is at least as much about this flow of ideas and information and technology, that is highly disruptive to that 1950s universe, but which our current numbers are struggling to keep up with and are ultimately failing.

As I have talked more about these indicators and listened to some of the feedback, I sound increasingly negative about what these are. I want to be very clear about where I am with this. I think the problem is that we are using an outdated, somewhat archaic statistical framework to capture a world that has changed more rapidly than our ability to fully grasp it, which is no way undermining just how valuable these numbers and this framework were at the moments in time when they were created to help steer us in a way of enlightening truly about what was going on, in the contrast of how dark and unaware we were before it.

The 1950s car that everybody talks about, like the Chevy you dreamt was incredible, was. But if I handed you that car and said, "Here, this is your car," today and it had no air conditioning and it had terrible pick-up and no anti-lock brakes and no GPS—none of the bells and whistles that we have come to expect from a car—and certainly no shock absorbers worth their salt and terrible fuel efficiency and bad mileage and no seatbelts, you probably would feel like you had been given something of a lemon, even though in 1950 you thought, "Oh, my god, this is the most amazing thing I've ever had."

The fact that it isn't a good thing now does not retroactively make it a bad thing then. So I'm not suggesting that the invention of GDP and unemployment and any of these numbers was wrong at the time. I'm suggesting that they have outlived their utility, especially commensurate with the kind of weight we put on them.

The weight we put on them is twofold. One is what happens within the professional economist/policy realm and the other is the public realm of how we understand what's going on. Let me give you two examples of this, one for each.
The policy realm is really interesting. A little more than five years ago, President Obama gets up, in February of 2009, in the midst of this financial crisis and somewhat of an economic implosion, and says, "We're going to pass the stimulus bill for $787 billion, and the result will be that it will create or save 3.5 million jobs."

I'm interested in this, not from a partisan perspective. Let's be clear. What I'm intrigued by is not, "oh, government shouldn't have done that," and "no wonder those 3.5 million jobs weren't created"—although, honestly, by saying "saved," you create an inherently non-falsifiable argument, because we don't get to relive the past tense, and it could well be that 3.5 million jobs were saved. But we'll never be able to prove that—or disprove it, for that matter.

But what I think is really interesting is, what is it that allows the leader of a country, who is kind of governing policy, to get up and make such a specific statement about "we're going to spend X and it's going to produce Y"? The statement was not, "Things are really bad. We need to take action just like we did in the New Deal." Whether you agree with that or not, the statement was not, "We have an urgent situation that requires action, that requires us to staunch the bleeding by spending money, and the result will be that things will not get worse nearly as quickly as they would if we don't, and they will probably get better." That would have been an honest, probably, description of "we need to do something, we need to be innovative, and we need to do it now.

But what is it that allows for a specific statement of, "spend X and a very precise number of jobs are going to be created"? He didn't say 3.4 million, he didn't say 3.6 million; he said 3.5 million. And he didn't say it because he came up with it. He said it because there's an entire framework of economic policymaking that has created formulas that go, if we have this thing called an economy and this thing called GDP, and if it's not producing the amount that we think, with employment failing, and we spend X, based on patterns that we have observed, we can say with some degree of confidence that spending X will lead to this amount of job creation subsequently.

But what's fascinating about that is that these numbers have only existed for barely 60 years, and the number of recessions that have required that kind of spending you could count on one hand, and that if you try to include examples from other countries, maybe you could count on two hands, you have created a framework that is expressed with this kind of mechanistic rigidity based on a remarkably few data points to support whether or not that is even true.

My issue with that is not that we should or should not have done it; it's that, based on what these numbers are and how long we have had them, we lack the ability to calculate outcomes with that degree of certitude, and yet we do so all the time. The Congressional Budget Office does so all the time, because it has to by mandate—a mandate that, incidentally, only has existed for 20 years. There was no Congressional Budget Office before the mid-1970s, and it didn't score legislation until the passage of the Gramm-Rudman Act in the mid-1980s, and it didn't score legislation the way it currently does until the early 1990s. Yet now it's as if there was always this holy arbiter of government spending through which the calculus of, "if we spend X now, what will happen in the future"—all of which are based on a limited number of formulas.

One more example of that. In the 2012 presidential election, one of the things that was said most frequently—or at least that I heard most frequently—was that no president has ever been reelected with an unemployment rate greater than 7.2 percent, or whatever the number was.

Think about that. That seems like a very strong historical pattern, kind of an ironclad one. It led month after month after month to an intense amount of attention being paid to the unemployment
rate, focused laser-like on, was it going down, what was it going to be—to the point where a good unemployment number in November led Jack Welch, famously, to go, "Oh, well, those Chicago boys will stop at nothing to make the unemployment rate look lower."

But what's really interesting about that statement is—think about it—it's presented as a factual, strong, historical pattern. There was no unemployment rate until the late 1940s, and no unemployment rate that the Bureau of Labor Statistics released publicly until at least some point in the 1950s. But let's say, for the sake of argument, it existed and it was disseminated by 1948. Between 1948 and 2012, there were 16 presidential elections. Seven people ran for reelection during that period of time and two lost, Jimmy Carter in 1980 and George Herbert Walker Bush in 1992.

So to make the statement that no president has ever been reelected with an unemployment rate greater than 7.2 percent is to say that in the seven times that this has happened with this number, it has never happened. As anyone who knows anything about statistics would know, the margin of error in a set of seven is so large as to be meaningless to make any conclusive statements about. Yet we make them all the time.

That's a much simpler example than the "if we spend $787 billion, we'll create 3.5 million jobs," but it's the same pattern of how we have used a limited amount of information to guide us in ways that at least I think we cannot possibly be guided by.

A final example in all this. If our system has shifted, which I think we all believe it has and I think we all intuitively know it has, then even if those patterns were established, there's no reason to think they would continue to be true if other things have changed. Think about the relationship between spending and jobs, and GDP and jobs. All GDP measures is how much stuff we're capable of producing. It is completely neutral about whether that stuff is beneficial for the long term, whether it leads to a sustainable trajectory of growth, what the stuff is.

If a hurricane hits New York again and a series of mudslides hit California, the clean-up efforts of those natural disasters will be good for GDP, because we will spend money and that will go into output. If a coal plant pollutes a river, the clean-up will be good for GDP. The BP oil spill was very good for the GDP of that region.

But I don't think any of us would say a priori that in order to boost GDP this year, we should have more natural disasters and a few man-made ones.

If the Carnegie Council replaces all these lights with LED bulbs, which it probably has—and all of us, by the way, will have to replace our incandescents because they are going to stop being made—the cost of the LED may be more than the incandescent. So that's temporarily good. But the lower energy costs and the lack of need to replace those incandescents regularly will be negative for GDP, even though we would argue that it would probably be good for our energy consumption and bills.

Now, some economists would say the more spending that you have in your pocket that you save by not spending on incandescents, you will spend on something else productively, and so it will be a wash in terms of GDP. But that assumes you don't save it or it assumes that you then spend it on something that is consumption in real time, that you don't pay down debt or pay down your mortgage.

So the idea that we are measuring the system that we want with these numbers is highly in question.
The final issue is, we live in a world where we are rich in information technologies and increasingly not based on a manufacturing industry, but not in the sense of output. GDP measures output. A factory gets built today, it adds to GDP in the area in which it's built. The factory produces more stuff. That adds to our GDP, particularly if it's domestic stuff. But if it's robotics and information technology that allow the same factory to employ 500 people that would have employed 5,000 people 30 years ago, then you have created something that's positive for GDP, good for output, lowers inflation, and does nothing for job growth, which means all those patterns that we believe exist have broken down.

Trade patterns also. All of our trade figures rely on a 20th-century-and-before belief that everything you buy is made somewhere. Increasingly, we live in a world where everything we buy is made everywhere, whether because the intellectual property comes from multiple sources or, more to the point, because the components of it come from a supply chain that has spread out globally where it's most advantageous. That's true for a carpet; it's true for a T-shirt; it's true for an iPhone.

But our trade figures, because they are limited by how they were defined—that a nation and a factory and a country makes something, and it either gets consumed domestically or sold foreign—are unable to account for any of that. They are unable to account for the intellectual property that goes into an iPhone. Every time an iPhone gets bought in the United States by you, by me, by any of us, it shows up as an import from China, a $200 import, a $250 import, because it underwent its final substantive transformation, which is how the World Trade Organization defines this, in a factory in China.

So every time you buy that, $250 statistically leaves the country, whatever the number is, and shows up as a negative on our economic lives. It's a bad thing economically. And it leads to a perception of the decline of the American manufacturing base.

A bunch of people have taken apart the iPhone and tried to show where it's made and how it's made. About $8, maybe $10 of it actually goes to China in the form of the labor of those people in Shenzhen. But the fact is, it isn't made in China. Its final assembly occurs in a factory in China. Its chipsets are made in Germany. Its chipsets are made in Korea. Its chipsets are made in the United States. Its plastics might be made in Malaysia or Thailand. Some of its components are made in Taiwan. Above all, its intellectual property is made in Cupertino, California.

If you were to disaggregate all that and apply each of those things to where they are from, we would have a very different trade picture than the one we currently depict, particularly if you did that for 100,000 products. The problem is that we can't do that for 100,000 products. So we're left with this monthly trade report that shows a trade deficit with China and shows the ways in which our manufacturing base is slipping, without showing all these other things that are not only equally important, they are probably much more important.

The question in all this is, what do we do about it? I'm under no illusions—and none of us should be—that we're going to suddenly spend billions of dollars at a national level and billions more at a global level to improve our statistical framework for how we see the world. That is not going to be a trenchant reelection theme for anybody in the midterm elections in 2014. It is not how the Indian government and the BJP [Bharatiya Janata Party] is going to campaign in India—"I'm going to get into office and we're going to spend lots of rupees in order to improve India's statistical agencies."

So we're stuck with the framework we have right now, in the sense that these numbers will keep coming and will keep coming. The one real advantage of them coming and coming and coming is that they justify the collection of an immense amount of incredibly valuable data. Every inflation
report comes with hundreds of pages of tables, eight different measures of how you would calculate inflation. Every unemployment report comes with tables and statistics, by state, by region, by demography, by gender. Every GDP report comes with a wealth of information that we simply don't tap into, because, as the world has become noisier and more data-rich, it's almost as if we cleave ever more to simple numbers.

One of the greatest things we could all do is recognize that there is no simple number that is going to answer any of the meaningful questions that any of us have. These are all averages. These are all complicated systems reduced to two-digit numbers, maybe three digits if things are really good or really bad. That's it. Per capita income is a terrible number to try to assess, is the system meeting people's needs? All per capita income is, is our population, including children, divided by our GDP. If Bill Gates walks into the back of the room today, we're all per capita millionaires. But it tells us nothing about income in any meaningful way.

So many of our statistics are simple averages—the unemployment rate. No one of us has an unemployment rate of 6.5 percent. You would be hard-pressed to go anywhere in the country where you magically replicate that rate. Detroit does not have the same unemployment rate as Las Vegas. Las Vegas does not have the same unemployment rate as Nebraska, which, by the way, has never had an unemployment rate greater than 5 percent throughout the entire economic crisis because of agriculture and fracking.

So the idea that there is one unemployment rate that actually describes a national problem is itself a fiction that leads to fictional policies designed to lower a national rate that essentially doesn't exist. There are unemployment problems in this country that are deep and profound. If you're an African American male without a high school degree, some people say you have an employment rate of 10 percent. If you're a college-educated woman, you have an unemployment rate of 4 percent. There is no national policy that either the Federal Reserve or the government is going to do that is going to lower the rate nationally, when the rate nationally only exists as a statistical thing. It's not real.

What I try to suggest in the book and what I try to suggest to all of us is that the only thing that matters is the questions you have and the ability, then, to find numbers and information and data and, to some degree, statistics that help you answer those questions. I do not know—and I have thought, as I have been describing this book more, and maybe I should have written it more deeply into the book—I'm not sure what question in the world we live in today, even for policymakers, GDP or the unemployment rate or the inflation rate answers. Maybe you could say the inflation rate answers the central bank question of, is there price stability? And given that our mandate is maintaining it, having some sense of what it is in velocity of change is important.

But for the most part, unless you are a central banker—and most of us are not and will not be—I'm not sure what question these numbers answer. I know what questions they were designed to answer, which they answer quite well: How many tanks or planes can the United States make industrially without imperiling its economy? Are our programs working in the New Deal to stabilize this system?

But what question does GDP answer for you and for me? What question do any of us have individually or does any business have that is answered by these numbers?

We all have lots of questions. "Should I buy a home?" is a big question individuals have. "Should I invest in future expansion?" is a big question that businesses have. The "should I buy a home" one—how is that answered by the National Association of Homebuilders' housing starts last month or the National Association of Mortgage Originators' mortgage originations or by what the average
30-year rate is as published by banks and disseminated on business pages? That could be completely true to your experience and it could be completely meaningless, and the only way you will know is by finding out what are the home prices in the area in which you live, and can you get a mortgage, and what are the employment dynamics.

What's really interesting is that we now live in a world where the answering of those questions individually with data and statistics—and I call them bespoke statistics; I say we ought to create bespoke statistics—has never been easier. You can go onto an app, you can go onto anything and find the home sales in the past 60 days within a 10-mile radius and find what they were bought for originally four years before and what they sold for and what the rates are in that area. If you had had to do that 10 years ago, if you had had to create your own numbers 10 years ago, I don't know if you even could have. If you had gone to your local town hall or whoever kept the records of land deeds and you had said, "I want every sale in the past 60 days," I'm not sure someone would have given them to you. Maybe they would have. Maybe they would have done it only with a six-month lag.

The point is, it has never been easier to find the information you need and craft the statistics that answer that, in a world where we cleave ever more to a national narrative that doesn't even pertain.

The same thing for business. Should I spend money? Is GDP going to tell you whether or not your business is going to do well? Certainly not a big business. GDP could fall 2 percent and Amazon could still grow 5 percent, because all the malls go out of business and everybody starts shopping online, because you don’t have to drive to the malls. Google can do really well throughout this period even as the advertising in print industry is imploding, because whatever marginal spending exists goes online and it goes away from those traditional industries. None of those national figures are going to tell you whether or not that's a good investment or whether Google is pursuing a good strategy.

I don't think there are many questions that any of us have individually or a small business that any of us might create or a large business any of us might run that will be well aided by believing that there are patterns you can glean in these numbers that will dictate helpfully your strategy ahead.

Finally, you add in the global element to all of this. We have no global numbers. We have a lot of national numbers that we divide and add globally. Even the United Nations keeps no international statistics, because it has neither the staff nor the funding. It collates national numbers and tries to create some sort of international picture. The same thing with the World Bank.

So we live in this world where we have immense information at our fingertips. Part of the call is, let's use it. Let's use it to guide us meaningfully and create the numbers that we need. Using a 1950s roadmap that is increasingly not the world we're living in is only going to get us lost. While there is some utility for maintaining the information that comes with these numbers, they are as much misleading indicators in terms of how we use them as they are leading indicators in terms of how they were created.

So let's use the information we have and make the power of the information age real and allow for these leading indicators to have been a great invention that helped us understand the world and shape it constructively. And let's let it go.

Thank you very much.
JOANNE MYERS: I think by your talk, instead of gross national product, you gave us gross national happiness, like Bhutan, right?

ZACHARY KARABELL: Yes. The experiments to create alternate ways to understand the world we're living in are interesting, but because they also create a number—gross national happiness—what I say in the book is, it's really interesting, but it's just going to be wrong for different reasons. It's still one synthetic average to try to capture complicated societies. The idea that you are going to create this number that kind of tells you that you are either doing this or you are doing that I think is part of the problem.

QUESTION: Tyler Beebe.

Without getting too far into the weeds, could you explain the raw mechanics of calculating GDP? How do you count all those widgets? How do you assess the price of those widgets? How broad is the sampling, in other words?

ZACHARY KARABELL: It's huge. The government collates, I'm sure, tens of millions of data points now in terms of Census Department information, trade information, tax information, final sales that are recorded, retail sales that are recorded—and then having to categorize them. One of the real challenges in national accounts and GDP is that you don't double-count. If you make a part that then goes into a car, the car is the final object that goes into GDP, but you don't want to count the part, because if you count the part, you are going to double-count output. So not only do you have to get massive amounts of information, you then statistically have to determine what constitutes an intermediate good, which doesn't go into GDP, and what constitutes a final good, which does.

Almost every sale we have—and this was true in the 1930s—most things are recorded, either for tax purposes or for business ledgers. Insofar as the government receives this information because it has a call on that information—again, largely for taxing—we do get most of that information. Then there are ways to assess whether it's correctly assessed.

It doesn't, of course, include the black market. It doesn't include cash transactions. It doesn't include any output that you found a way not to include the government in. There have always been issues with non-profit work.

It's also how you characterize spending. In July of last year, the Bureau of Economic Analysis [BEA] announced one night that the U.S. economy was $500 billion bigger, overnight. So we all became $500 billion richer per capita divided by 320 million people. Everybody had another 1,800 bucks, whatever. But you had it all along, because they went back to 1929 and revised that as well.

Until last summer, if a business spent money on software or if it spent money—if you're Lady Gaga (and for all we know, you are, in fact, Lady Gaga, given her amazing proclivity for incredible disguises), one of your record labels would spend a lot of money funding you to write a song and then record it. Before July of last year, that was treated as an expense. It wasn't part of output. It was a business expense. The BEA decided, "Look"—back to the Apple example—"that's actually an investment that is going to yield future returns, and so we ought to be treating it as an investment, which will be measured as part of GDP, and not as an expense, which wouldn't."

It's an accounting thing, but it's a way of shifting the way in which we look at something. That happens constantly.

There's a really good book out on GDP by Diane Coyle, a British economist. She says we treat it like
this fixed mountain that we’re just measuring the height of, but it’s much more like a mountain whose height is constantly changing, because we’re constantly changing what we’re deciding is the mountain.

That's why it's a moving target, to say the least.

**QUESTION:** Brett Buchness.

Could you talk a little bit about the history of the Federal Reserve Beige Book—I'm not sure if everyone knows what that is. It's basically a book that gives anecdotal evidence as to how the economy is going. I don't know exactly when that came about. Was that designed to kind of tackle some of these issues that you're talking about?

**ZACHARY KARABELL:** I don't know exactly when the Beige Book was put out. It was put out long enough before the information revolution that at one point it actually was a beige book. I don't know if that's the 1960s or the 1970s. It's certainly not much before that, because you didn't have these massive regional staffs of economists doing their own survey work and industrial manufacturing survey work until well past the 1940s. But I don't know exactly when the first Beige Book was put out.

Part of it is, particularly as the Fed acquired this dual mandate, which is acquired only in the 1970s, not just for price stability, but for full employment—which is a fascinating idea, that the Federal Reserve, the central bank of the United States, can shape the employment picture depends on a belief of the interconnectivity of these indicators, that if you generate low rates and full price stability, somehow that will lead businesses to borrow and then hire, and then demand will go up.

The Fed itself is clearly realizing that it can collate all this information, but what it can actually do about things like employment and output is much more limited. It's not the way it was 50 years ago, when companies just needed to have more money or more price stability. Clearly they can have plenty of money, plenty of price stability, lots of Fed easing, and have absolutely zero incentive to hire, and in no way can augment pricing power or demand.

The Fed is realizing that all that information, in terms of policy outputs, is increasingly mismatched. I think Janet Yellen in her initial testimony to Congress a few weeks ago started to back off of this "we’re going to peg our policies towards an employment rate level" because of recognizing that, even then, what's the nature of the employment, and what's the underemployment rate? Why is every job a good job if it's paying so little that it puts you under the poverty line? Why are we fetishizing the number rather than some question underlying it, which is economic growth and the sustainability thereof?

**QUESTION:** Bob Perlman.

What's your view on the IMF [International Monetary Fund] and the surveillance data, the bi-annual stuff that they do, world economic data, world economic output, all that stuff?

**ZACHARY KARABELL:** I think it's really compromised. It's highly dependent on the reporting of national governments about what their internal framework is.

Two problems. One, even if all the information is perfect, in the sense that they are all compiling it well, the question is, what does that do? If it's all GDP-focused—and the Chinese government clearly has pegged its legitimacy on that number—there are many ways to make GDP look good that in no way fit the goals of the IMF or the World Bank for long-term sustainable growth or stability. You can
make GDP look good because you spend a lot of money on consumption or because you print more money, without that necessarily translating into a sustainable economic base.

There are issues of the nature of the data itself and how well it's collected. In 2009, the Kirchners, the husband-and-wife team who were essentially ruling Argentina at the time—elected to lead Argentina—fired the entire statistical staff of the government responsible for reporting inflation because that agency kept reporting higher inflation than the Kirchners wanted to exist in order to be able to say that their economic policies were working.

We can't necessarily get away with that.

That staff, which wasn't a particularly large staff—I think it was about a dozen—formed their own non-profit group in Buenos Aires to say, "We're going to keep doing the work we're doing. A lot of this is public information anyway—prices." They then revoked the non-profit status of the organization so they could stop being a real key on it, which then led two Massachusetts Institute of Technology economists to start this thing called the Billion Prices Project, which says, "Why do we need anybody to collect real-time information at all? We'll just scan all online prices of retailers that also have a physical presence and we'll get a real-time snapshot of prices."

They have now done this for every country. Interestingly enough, except for Argentina, it actually doesn't depart that much from reported inflation.

But you do have this real issue. All that the IMF and the World Bank are doing is looking at output and inflation numbers as if, if one points up and one points down, it's a good thing. I think one of the reasons why there's a law of diminishing returns of development and the way we're doing it is because it's so focused on, "Let's make GDP go up, let's make output go up. Developing nations means more stuff being consumed and made," which is a way to understand long-term prosperity, but clearly is a very limited one.

**QUESTION:** Laurence Meltzer.

Some environmentalists believe that certain things that are detrimental to our health and welfare and pollute the environment, cause global warming, etc., should be deducted from GNP. What do you feel about that?

**ZACHARY KARABELL:** I don't think it's either deduct or add. I just think it's the wrong framework to understand these things, mostly because there are multiple variables. Yes, there are long-term health costs. If you deduct them from GDP, what does that get you?

The reason that that is advocated is the belief that if you do so and you can demonstrate that the growth would have been this but for the negative environmental effects of that, and therefore the growth is below that—you would have to do that for, like, 10 years and convince people that everything else had stayed perfectly static, in order to show the purely negative effects of that. I just think that's living in La-La Land. You don't get to hold everything else constant so that you can just show the bad effects of that one thing.

What you could do, though, as a statistical thing—companies report their costs, and one of the things companies have been able to do, not just about environment, but about infrastructure, too, is kind of externalize costs that they don't have to bear. One of the better incentives in terms of how we understand things statistically, I think, is ways in which companies would have to not be able to externalize certain costs on their balance sheets that they are now able to. Infrastructure is one as
If you get the benefits of roads built for your business by a local community, you get to look like your business is doing really well and the domestic economy is doing really badly, because the domestic economy has borne all the costs and you get all the profit.

In reality, it's just a way of slicing things and how you look at them. But it creates, I think, a not healthy optic of "wow, look at well companies are doing and look at badly national economies are doing."

National economies as measured by GDP bear all the costs of being alive—defense, infrastructure, education, aging populations, domestic security, counterterrorism, you name it—and very few of the benefits. Companies get to domicile their profits where they want in the world, where they are taxed least. They get to arbitrage labor and they get to use technology. I'm not saying that is a negative. I'm just saying that the fact is, it's really good to be a company. You get all the benefits of a lot of these systems and states get lots of the costs.

It all comes out in the wash, but to say, "Oh, companies are so well run and governments are so badly run"—that may be true at some level, but it's also true that it's really easy to be well run when someone else is taking care of all your costs and you get to show all your profit.

**QUESTION:** Lynda Richards.

If tomorrow the government and the financial markets agreed with you, how would you make this move?

**ZACHARY KARABELL:** I'm not sure there is a whole lot of disagreement with this, interestingly. I have yet to find that anyone has actually stood up and said, "All of this is fine and you're bonkers." That may be because people are too polite. But believe me, online they are not too polite to say that. People will say lots of things online that they would never say in polite company, that I can't even believe they would say online.

The objections are not, "This is all fine. What are you talking about?" The objections are either, "You don't go nearly far enough, because all these numbers are just a conspiracy of governments to control"—and there has always been that, because governments created these numbers. They created these numbers to affect policy. There's a lot of suspicion about, particularly, the inflation rate, that it's a chronic way to prevent cost-of-living adjustments to go into effect. It was the only time in our lives that I think there will be a furor over chained CPI [consumer price index] versus CPI—it's like, oh, my god.

The whole point of that was that chained CPI shows a lower rate of inflation. It would lead to a lower rate of increase of both Medicare and Medicaid and Social Security, and so it would lead to less government spending, and is thereby perceived as a government ruse to keep costs low.

So there's that strain, which is that all this is made up anyway and you're taking it too seriously.

Then there's always the partisan strain. Who's benefiting from this? My point is, it's not whether anybody is benefiting. It's an embedded part of the world we're living in that everyone is equally complicit in.

How would it change tomorrow? I think it would change in that very few of our discussions, certainly individually and in our collective lives, are answered by these statistics, as I said before. I don't know what question any of us have that is answered by GDP.
I think we're beginning to move in a direction where there's less reference to this because of the recognition of limitations. But it's much more of a slow movement toward other information and other analyses entering part of our lexicon, and thereby relatively diminishing the import of these, than it is an overnight "here's a brave new world."

QUESTION: James Starkman.

Just taking a quick look at everyone's most visible and favorite leading or misleading indicator, the stock market, it was not so very long ago that every Thursday we waited with trepidation for the M2 money supply figures to come out. It was a weekly torture rather than a monthly torture. Now we have the non-farm jobs coming out once a month, with riveted attention.

Is this a misguided myopia on the part of the financial community?

ZACHARY KARABELL: It is to some degree. There's a degree of short-term algorithmic trading that has now assumed that there is a trading pattern that these numbers will dictate, depending on what direction they point. So if you act quickly enough with the numbers coming out, you can gain some sort of marginal benefit. Insofar as those patterns may not be true in any actual sense, but at least people believe them to be true within a very micro sense of who is trading, for the hour or so when that world and that fiction can pertain, maybe you can make more money, or less, by trading on that information.

In terms of what they tell you fundamentally—I mean, even the stock market. The belief that corporate profits have to eventually coincide with GDP, and that therefore stock markets ultimately have to be somewhat in relationship to their underlying national economy, I feel makes very little sense in a world where half the profits of the S&P 500 companies come from outside the United States. Why that should have to correspond to the U.S. GDP is one open question.

Two, back to the point I raised before, if national economies are bearing the costs, then there's no reason why companies can't do significantly better—at least many companies; maybe not utility companies—than their national underlying economies.

Just a really inside-baseball wonky point, when you mentioned M2 and money supply, it's really interesting that that is a figure that used to have a lot of prominence that has almost none and has almost evaporated in the past five years. I think one of the reasons is, in a world where capital is flowing globally and electronically, and where the dollar is kind of a global currency, I don't think anyone knows what the money supply fundamentally is. And even if you knew what it was, how would you know what the absorptive capacity of an international system was for dollars? Maybe if you had a closed loop where you were in control of your currency, currencies were hard to exchange, then you could say there's too much money in circulation, and that's going to lead to rising prices. But what is the global absorptive capacity for money? How would you know? What would the answer be?

I think one of the reasons why that one in particular has begun to fade is because its utility relative to the world we're living in is so obviously off because of those issues that it has become far less consequential as a discussion.

JOANNE MYERS: Thank you very much, Zachary, once again for thinking outside the box.

Audio
"By relying so heavily on things like GDP, unemployment, and the suite of statistics that grew up in
their wake, we are using a really good 1950s set of tools that were designed to answer questions of
global depression, World War II, and 1950s industrial nation-states that made stuff. We're really good
at measuring that world, but we're not living in that world."

**Video Clip**
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