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Thanks to Ethan Monreal-Jackson of <u>Newtype Ventures</u> for sponsoring this transcript. **TYLER COWEN:** Hello, everyone, and welcome back to *Conversations with Tyler*. Today, I am chatting with <u>Kenneth Rogoff</u>, who is one of America's best economists. He is a professor at Harvard, and he has a new book out called <u>Our Dollar, Your Problem: An Insider's View of Seven Turbulent Decades of Global Finance, and the Road Ahead.</u> Ken also has extensive experience in the <u>IMF</u> and dealing with various global crises. Ken, welcome.

**KENNETH ROGOFF:** Thank you. It's a pleasure to be here, Tyler. Good to speak to you. **COWEN:** Circa early 2025, the big debate is whether there's such a thing as an unsustainable international trade balance. Oren Cass says there is. Michael Pettis says there is. Traditional theory is more skeptical or agnostic. What's your view? **ROGOFF:** No. There's unsustainable debt. There's not particularly an unsustainable trade deficit. There're good things about having a trade deficit, bad things, but it's a result of many factors. No, I wouldn't agree with Pettis on that.

**COWEN:** What is the mistake he and Oren Cass are making?

**ROGOFF:** The trade balance depends a lot on your savings and your investment, these macro-economic factors. If there's an underlying problem—and to be fair, when your trade deficit's *really* negative, there often is—it could be something. I think in the case of the United States, when it hit a real peak in 2005 to 2007, I thought there was a problem. I must say, I didn't know until very close to the event, what was going on. We weren't regulating well, but I didn't even know what their point is, to be honest.

There's this <u>mercantilist</u> view. I want to collect all the gold in the world. We want to be able to buy things. Back in the day, you used to have to hire an army or navy to help fight off invaders and such, but today, that's not so true. I think the <u>current account deficit</u>—that's a broader measure of the deficit—it's important, and if it's really large, you can probably bet that it might go down, but it's not something to try to wrestle to the ground.

#### On China's macro policy

**COWEN:** There's an associated claim I hear, including from Martin Wolf, that China needs to substitute more into consumption to remedy some longer-term macroeconomic imbalance. I can see that, from a welfare point of view, the Chinese over-subsidize investment and might be better off consuming more, but is it going to boost their growth rate to consume more?

**ROGOFF:** First of all, [laughs] they subsidize investment like crazy.

**COWEN:** Of course.

**ROGOFF:** Investment has been 40 percent of GDP. Consumption—there are different measures, but 50 percent of GDP, maybe. We're 70 percent of GDP by comparison, and it's

been very imbalanced. It's for a <u>command-and-control economy</u>, and China is a hybrid economy. The central government plays a big role doing infrastructure investment. Subsidizing real estate is easy to do, and they've been doing that for a long time, and their growth has been very imbalanced.

Everybody has been telling them for years, why don't you build up your consumption? But it's been hard because they don't have medical care in their old age. They don't have social security in their old age. They had this one-child policy for a long time. There are a lot of reasons everyone has had to say it, and now, their house prices are plummeting, and that's, for Chinese, where a lot of their wealth is. I would say it's not a bad idea to try a little bit of that, but they've dug a *very* deep hole. It's not easy to dig their way out.

**COWEN:** Putting aside the microeconomic distortions, which macro model do you use to think through the question of whether or not China should consume more? Do you use the <u>Solow model</u> or Romer or something else? What's your guide?

**ROGOFF:** Those are nice models, but let's be honest. They're just a piece of things. They *do* tell us that at the end of the day, you need to have innovation. If you're just growing by building more machines, by building more roads, you run into diminishing returns, and you get less and less with the output. That's what happened to Russia. That's what happened to Japan. That's what happened to a lot of Asia.

For some reason, people thought that wouldn't happen to China. Their rate of innovation over the whole economy—I'm not talking about the highest level—has collapsed by many different measures. The private sector is, of course, the root of all of the innovation. They have oppressed the private sector, particularly in the last 10 years, and for them to grow again, they need to restore some agency to the private sector.

**COWEN:** We're in the midst of some tariff debates right now, as you know. One argument I hear, sometimes, even from the anti-tariff people, is that if the US puts higher tariffs on China, the Chinese currency just depreciates. The dollar strengthens. There isn't that much of a net effect because, arguably, they're propping up their currency some amount now. Do you agree with that?

**ROGOFF:** What you said is exactly right. To a first approximation, if we put on a—I don't know, whatever it is—20 percent tariff, it has an effect on our exchange rate of making it go up, which makes our exports more expensive and makes their goods less expensive. I don't want to get wonky, but if you did it on the whole world—

**COWEN:** You can get wonky.

**ROGOFF:** I can get wonky with you?

**COWEN:** Absolutely.

**ROGOFF:** If you did 20 percent tariff on the whole world, to a first approximation, your exchange rate goes up 10 percent the dollar and that rebalances everything. That brings the cost of *their* goods back to just the 10 percent rise, and it makes your exports 10 percent more expensive because the currency appreciated. That's definitely an effect. Of course, they're probably going to retaliate, and then that cancels it out.

**COWEN:** But do they want to retaliate? Don't they prefer the outcome where the tariff approach is some kind of neutrality, given that they have an overvalued currency right now? They could have a decline, basically be insulated from the tariff, not have to worry about Trump so much anymore. Why should they retaliate?

**ROGOFF:** I feel there are a lot of distortions in their economy, but the days when it was very clear-cut that they had an overvalued currency—they're far gone.

**COWEN:** It used to be undervalued, right? Those days are *very* far gone.

**ROGOFF:** You're saying that their currency now is *over*valued—

**COWEN:** I think so.

**ROGOFF:**—and they want to bring it down. How do you figure that?

**COWEN:** They have all this <u>producer price</u> deflation, so they should be expansionary on the monetary side to have a more predictable path of nominal GDP growth, but they're not doing it, so probably their currency is a bit too high relative to an optimum.

**ROGOFF:** A logical way to do it would be to do more expansionary fiscal policy, more expansionary monetary policy. We don't try to deal with producer price inflation through the exchange rate. Exports and imports are important to China, but it's also a very big economy. There's a lot of stuff like the infrastructure investment and other investment that's internal.

**COWEN:** Sure, but if they had higher price inflation, the value of the renminbi in real terms would fall somewhat, at least for a while, and that would be better, which means the current rate is somewhat higher than it ought to be.

**ROGOFF:** They're running a massive surplus to the rest of the world. The total size of their trade balance surplus is only 2 percent of GDP. It's not 10 percent, the way it was in 2010, but they've gotten a lot bigger. It's still *huge* compared to the world. In crude measures, if their exchange rates is overvalued and undervalued, I don't think you'd come to a simple answer.

The dollar is very rich. In a sense, everybody seems cheap to the dollar right now. I'm sure you've experienced that with anyone coming from abroad, even from Japan or Switzerland. They're, "Oh my gosh. It's so expensive here."

**COWEN:** Feel free to give a wonky answer to this one. Why do you think it's been so hard for economics to develop a satisfactory theory of exchange rates? <u>Purchasing power parity</u> seems to hold only within very broad bands, something like 2x, and the rest just seems very murky. Why is that so difficult?

**ROGOFF:** Part of that is if you have floating exchange rates. There're a lot of financial factors that are hard to understand that move it around a lot. We're not able to easily identify those factors, but I think, more and more, theory, empirics is coalesced around things like bank balance sheets. Can banks arbitrage exchange rates and various pricing imperfections?

I think the way to research the past 10 or 15 years has been that the exchange rate moves a lot but it's not suddenly moving around the economy with it. We thought that for a long time, but I think the general view today—it isn't always true—but that a lot of the movements have to do with financial frictions and financial factors, not some gnomes controlling the exchange rate, that there's a lot of random noise.

**COWEN:** Do you think we need a good theory of both <u>real and nominal exchange rates</u> to make reliable policy recommendations? If we don't really know what the exchange rate will be doing and why, doesn't that put us in the slightly odd position that we're saying do this, do that, but the most fundamental price variable is a mystery to us?

**ROGOFF:** As you may know, I think my first important paper was showing how hard it was to explain exchange rates. I'm embarrassed to say it's like 45 years ago. I think the policy conclusions people drew out of that is, don't look at the exchange rate. When you're trying to figure out what policy should be, look at inflation rate, look at output.

I think for some countries, they're so deep into dollar debt, they're so connected with the dollar and trade, they *do* worry about their exchange rate. It depends on if you're talking about a big country like the United States, or are you talking about New Zealand or something like that. I think generally, policymakers need to recognize there's a lot of noise. Trying to target the exchange rate is a fool's game. If the Trump administration's trying to do it, they might get lucky, but it's pure luck.

#### On Pakistan's bailouts

Pakistani economists who know what to do.

**COWEN:** If I take the country of Pakistan, I think it's now been through maybe 23 or 24 IMF bailouts. That's a lot. The problems aren't fixed, so we would all say here're ways Pakistan could improve. Probably you and I would largely agree on those. Just from an external point of view—say you're dictator of the IMF, you're the managing director, you're the board, you're the staff—what is it you would actually do with Pakistan? **ROGOFF:** The deep-seated problems—the military is very, very powerful in the country. The military is very corrupt, runs a lot of the businesses, has a lot of control. It really runs deep into the institutions in the country. It's not something where you can airlift some expert like you or I and just tell them what to do. Believe me, there are a lot of very smart

**COWEN:** Sure, but do you sign off on bailout number 25 when that comes along? You're in charge.

**ROGOFF:** First of all, if you don't sign off on bailout number 25, they're going to default on bailout number 24. You're rolling over this debt all the time. It's very sensitive politically. Pakistan's a country that's very, very geopolitically important. You can't look at the programs there as if you're lending to the UK. It's something very different. The amounts are small compared to if you're lending to the UK.

Frankly, what I have advised on things like Pakistan is, just give them aid, don't give loans. You're never going to collect the loans. You're not seriously meeting their loans. It sounds great to say, "We just *lent* the money to Pakistan." But I think in general, in money we're giving to developing countries, too much of it comes in the form of loans, and it distorts what we do because we don't get them all repaid.

# On dollarizing Latin and Caribbean economies

**COWEN:** How many Latin and Caribbean economies should <u>dollarize</u>? A few have. Should more?

**ROGOFF:** It's a pretty desperate measure when you dollarize. There are different ways to dollarize. When I just came into the International Monetary Fund in 2001, <u>Argentina</u> had dollarized. They had been dollarized for 10 years. I said, "Isn't this great?"

**COWEN:** But that was a peg. It wasn't real dollars. I mean like El Salvador, Ecuador, Panama.

**ROGOFF:** You want to actually circulate the dollar.

**COWEN:** Right, because that's credible. Whether you like them or not, they've all stuck, right?

**ROGOFF:** You can do it. It has its costs. The biggest cost is if your banking system runs into trouble, you can't bail them out. In most countries, the currency that we think of, the physical currency, is just a little piece of the animal. A lot of it—you might not think of your checking account or your savings account as dollars, but they are. That's a lot of the money supply.

When you say they're just using real dollars, they don't have *real* dollars to back those bank accounts. It can work, but you run into banking crises, you run into debt crises, and then when you're dollarized, it's hard to fight it. It's doable. It's *absolutely* doable, but I'm not sure necessarily it's advisable. It depends on the alternative. If the country's been run into the ground for 50 years and you're trying to reclaim territory, it makes sense.

**COWEN:** Why isn't it easy for a lot of countries? Say you're Barbados. That's a small country. Most of your visitors are from the US also. Your banking system—you can just buy external insurance. There's an insurer that can cover the Barbados banking system if need be. Buy it from China if you have to, and then just dollarize. Why aren't they just better off? **ROGOFF:** I'm being naive, but *is* there an insurer who's going to bail out the Barbados banking system? I think our regulators would make that difficult. Their regulators would make it difficult. You would need to have something like that, and there're a lot of moral

hazards. If you're going to be an insurer, you can't just insure. You have to have 150 people on shore looking at them all the time. It's not easy to do.

The only country in the world, really, which can bail out its banking system is <u>Hong Kong</u>. They have enough dollar reserves to bail out everything. That's the problem with dollarization is that, if you're not going to have banks, it's great, but we want to have lending and mortgages and car loans and stuff, and it's very easy to run into trouble.

#### On Japan

**COWEN:** Why did Japan never have a financial crisis? Very high debt to GDP ratio. Growth rate is mostly slow. In per capita terms, it's not as bad as it sounds at first, but nothing gangbusters. How have they held on?

**ROGOFF:** They did have a <u>financial crisis</u>, the mother of all financial crises, in the '90s.

**COWEN:** Oh sure, but since then.

**ROGOFF:** Since then, well, *have* they hung on? In 1990, and even in the early '90s, their per capita GDP was 80 percent of the United States, and purchasing power parity measures trying to put into common price level, but in dollars, it was well over 100 percent of the US. Today, it's 60 percent in those measures. It has *not* held on in per capita terms. It has just not had growth for a long time, *and* they're running into trouble.

**COWEN:** There's per capita growth in Japan, maybe. I don't know.

**ROGOFF:** Yes, but nothing like in the United States.

**COWEN:** We've beaten every advanced economy, not just Japan.

**ROGOFF:** Yes, that's fair, but they've fallen behind France, the UK, Germany. They were ahead of all, and they've fallen far behind. They're in trouble now because they're finally having inflation. They're *needing* to raise interest rates. They've stuffed government debt into every orifice of the economy, into the pension systems, into the banks, into their postal savings system. Now, they're talking about cutting pensions, cutting old age benefits because suddenly, they're having to make interest payments on the debt, and it's hard.

I think people who use Japan as an example of everything's fine have their head in the sand. It's an example of, if you're very rich, you can go down slowly, but it's not an example of how you can have fantastic economy with debt like that.

**COWEN:** Why do some places, say, the much earlier UK—they have crises, and Japan, whatever the standard of living issues may be, there's no crisis. There's no run on anything. It's quite peaceful.

**ROGOFF:** It is a society which obviously has a very high degree of cohesion, and that's a tremendous strength of Japan. I just have an aside mention if I can. I was a visitor at the Bank of Japan in the early '90s in the middle of their meltdown, although I didn't see it, and I don't think anyone did at the time. I had to eat at the cafeteria every day. They had almost the same food that you had to eat, and it was good. Then I saw another line once, and I asked, "Can I go in that line?" The people said, "Oh, that's if you want a smaller portion."

It's a very different society than we have, but they have a lot of <u>financial repression</u>. Financial repression is going to be part of the solution in every advanced country where you force banks, insurance companies, pension funds to hold more debt. We've done that already, and they've done it in a big way. It's hurt their financial intermediation, so it makes lending less efficient, and that's part of why their growth has suffered. They've done a good job becoming sclerotic slowly, but I hardly think we would want to imitate them, especially if we intend to compete with China.

# On financial repression in the EU

**COWEN:** Is that what the European Union is going to do, financial repression?

**ROGOFF:** They did it already.

**COWEN:** They'll have to do it again. They still have all these major debt problems.

**ROGOFF:** Yes. They did it big time after the European debt crisis. Just a simple fact about that is, it used to be that, say, Italian debt was held in Germany, Spanish debt was held in Germany, spread all over. Now, the vast majority of Italian banks are holding all the Italian bank debt. Spanish banks are holding all the Spanish debt. Do you think that's because they're diversifying? No, it's because they're being ordered to do that.

They have a lot of financial repression already. They don't have dynamic capital markets for a lot of reasons. And obviously, they need to remilitarize now. Germany has a lot of fiscal space, so they can go all out. Especially now that real interest rates are hitting a higher level, they're going to have to do it, but I think they're going to find they have to give things up in order to do it, because the interest rates aren't zero anymore.

**COWEN:** You think they'll actually cut spending, say, in France? That's hard for me to believe. I don't disagree with you, but it somehow feels unimaginable to me. **ROGOFF:** Yes. Many of the European countries actually tightened their pension systems a lot during the European crisis. They set it in place to take place 10 or 15 years later. Not France.

Yes, I do. I think this is a real existential challenge to the French state. Maybe they'll take over as the tech capital of the world. Maybe they'll find ways to solve their problems, but they've been free-riding off the United States. There's no question about that, and now they have to spend more. [laughs] I'm not praising Trump's policies. Let's not conflate those two things, but yes, I think they're going to find their taxes are very, very high in Europe. In fact, so much so that there's no question it holds back a lot of investment.

Oh, my God. Europe has very few world beaters in terms of tech, finance. The biggest companies—set aside the Danish company, that's Ozempic—there're things like Hermes, Prada, lifestyle superpower stuff. No, I think this is absolutely an existential crisis here. It may lead to them becoming more cohesive. It may lead to them becoming more of a geopolitical power, *but* yes, they're going to have to make choices which they haven't had to make.

**COWEN:** If the nation is <u>Italy</u>, and I think that the birth rate, TFR, is about 1.3 on average, are they just going to wake up one morning and say, "The whole welfare state thing was a mistake, and we're getting rid of it?" Isn't that the implication?

**ROGOFF:** Well, that's a strong statement, and they're not going to do that, but—

**COWEN:** But if the country keeps on shrinking, the age pyramid gets worse and worse. **ROGOFF:** Yes, we all face this issue and hope that innovation and growth or something will help, but, yes, I know that the demographics is a problem. Every country and Italy, as you say, is far, far ahead of the United States on the demographics. An interesting fact is, they spend a mind-numbing 15 percent of GDP on old age pensions and support *now*. We're half that all in—15 percent of GDP. Yes, they have a lot of constraints, and their tax rates are very high. They're not corrupt like in Pakistan, but it's not Sweden either. It's got a lot of problems.

# On the US fiscal position

**COWEN:** Just predictively, what do you think the United States will do with *its* fiscal position?

**ROGOFF:** That is a *darn* good question. Looking way forward, I would just say we're on an unsustainable path. We will continue to have our debt balloon. Eventually—not necessarily in a planned or coherent way—I think we're going to have another big inflation soon, next five to seven years, maybe sooner with what's going on, and that's going to bring it down just like it did under Biden. It brought the debt down. Then the markets are, fool me once, shame on you. Fool me twice, no, we're raising the interest rate, and then we'll have to make choices.

I think in the United States, a lot of the choices, I'm sorry to say, probably point towards higher taxation because we're hardly running a welfare state. All due respects—and I'm not sure I have any due respects to DOGE—there're not that many things to cut in the

United States compared to many other countries. I don't know what the choice will be. I probably won't be here, and you might not be either, when we're making the choices, but if actually we'll—

**COWEN:** Oh, I think we'll both be here.

**ROGOFF:** It could happen *much* sooner. On the other hand, it's hard to know what's going through Trump's head. I presumed he was going to blow up the deficit, like everybody else. We'll see.

**COWEN:** When you say big inflation, how big is big?

**ROGOFF:** Last time we probably had a bonus 10 percent inflation over the 2 percent target cumulatively, maybe 12 percent. I think this time, it'll be more on the order of cumulatively over the 2 percent target, 20 percent, 25 percent. There's going to be an adjustment. I don't think the debt is going to be the *sole* contribution to that. There are *many* factors. You have to impinge on Federal Reserve independence. Probably, there'll be some shock, which will justify it. I don't know how it's going to play out.

I know that for years, people have said the US debt is unsustainable, but it hasn't come to roost because we've lived through this post-financial crisis, post-pandemic era of very, very low and negative real interest rates. That is not the norm. There's regression to mean.

You know what? It's happened. Suddenly, the interest payments start piling up. I think they've at least doubled over the last few years. They're quickly on their way to tripling, of going up to \$1 trillion. Suddenly, it's more than our defense spending. That's the most important macro change in the world, that real interest rates appear to have regressed more towards long-term trend.

**COWEN:** What's the most plausible scenario you can imagine where the US does *not* have to make any major adjustment? I'm not saying you're predicting it. I'm not saying you think it's very plausible, but you have to come up with something. What is it?

**ROGOFF:** Oh, I don't think there's any question. It's that the AI revolution turns out to just work magically much better than anyone imagined, that people like me quietly acquiesce to just getting transfers from the government instead of having jobs, and we just continue to have a high income, and the robot income pays for everything. AI is absolutely the thing which is most likely, some kind of technological change.

But other than that, the problem is in our politics. It's in our DNA. We're convinced that we're immortals, and we can just do whatever we want. You go around Washington, whatever they say, I think that's what they think. Again, this key thing is that real interest rates, the interest rate adjusted for expected inflation—and I'm looking at the long term—they've come up. They're not super high, but they're more like they were in the early 2000s, and, I think, of reasonable projections, they're going to stay around the level they are now.

**COWEN:** I'm sure you know the classic <u>Paul Samuelson paper on overlapping generations</u> model. In that paper, the real interest rate is equal to the rate of population growth.

There're other papers where the real interest rate is in broad harmony with the rate of productivity growth. If either of those models are correct, aren't we okay again? **ROGOFF:** First of all, it's different. You look, if it's population growth and productivity alone, then you're losing tax dollars at the same time you're paying less interest. But it turns out, those variables don't work so well over a longer period. I have a <u>paper</u> in the *American Economic Review* just last August about this.

If you look over longer time periods, just because economists *think* that those should be the dominant variables, it doesn't turn out to work that well. All this stuff—there've been a lot of papers by economists looking at the decline. The real interest rate going down, demographics going down, productivity going down, looks great. If you look at a longer period, there's no there, there. It just doesn't stand up.

I think there are other factors having to do with liquidity, default risk, changing nature of the production function, globalization. I think there are many variables where assuming there's going to be some reversion to mean is just a pretty good thing to have in the back of your head. You know, <u>Carmen Reinhart</u> and I have this book, <u>This Time Is Different</u>—very much on the theme of people just looking at five years or ten years and thinking, "Oh, it's just great. It's just going to go like this." I think the real interest rate is an example. I would say the low inflation is another example.

My students, for a long time, just didn't believe there'd ever be inflation again. I would teach it; they would fall asleep. I remember asking a question even to someone who was a research assistant at a big central bank, "Explain this to me about inflation." She said, "My generation doesn't ever expect to think about inflation. We don't have it. Please give examples of this." So no, I would suspect we will have high real interest rate. And by the way, AI will raise the interest rate.

**COWEN:** But productivity, too. That's a case where it goes up with productivity.

**ROGOFF:** It does raise productivity, but the usual thing about demographics is, there are less people to work with the machines, and therefore, the return on the machines is lower, and the interest rate goes down. But if the people are being substituted for, which is new—we've always found a way to reinsert ourselves—you won't necessarily, even in a theoretical model like Samuelson's or Solow's, get that effect.

**COWEN:** You wrote a famous 1987 <u>paper on political business cycle theory</u>. How relevant do you think political business cycles have been since then?

**ROGOFF:** Well, there've been a lot of papers on it. I don't think there's any question every politician in the world, if they have the power, tries to goose up the economy before it happens. I think empirically, it's overwhelming that it's true. The question is, why does it fool anyone?

Everybody should understand why that's going on. Without going into details, that paper was about the paradox that I *know* you're just making things look good. I *know* you're hiding something from me, so that you're exaggerating how long this can go on, how much

it's costing, but I'm going to vote for you anyway. That's what that paper was. It looked at it as a signaling model that's getting really wonky.

**COWEN:** The fiscal versions of political business cycle theory—they don't have to fool anyone. You do get the money, and society as a whole has to pay it back, but you can come out ahead.

**ROGOFF:** There's another, I'm going to just translate it a little bit from my model, one that my late colleague, <u>Alberto Alesina</u>, did, and a number of others, that said part of the reason debt keeps piling up is we have the liberal party and the conservative party. When the liberal party is in power, they know that debt is bad, but they know they can spend now. They know they might not control it in the future, so they spend a lot and they borrow. When the conservatives are in power, they cut taxes and build up the debt.

I think that's a very, very powerful theory of part of why debt builds up is, whoever is in power says, "Don't pay any attention to it." Of course, I think we end up where we are now.

# On phasing out (some) currency

**COWEN:** In an earlier <u>book</u>, you called for phasing out of currency and large denomination bills. Do you still want to do this?

**ROGOFF:** Oh, I call out for phasing most currency. I'm not phasing it *all* out right away. That takes a generation.

**COWEN:** Sweden has done it. It doesn't take that long if people are on board. It's very hard to run across currency in Sweden today, and they didn't even pass laws.

**ROGOFF:** You're right. You have to travel 150 kilometers to get to an ATM machine, but it's not completely phased out by any means. It's still there. First of all, we've had enough inflation that the \$100 bill is now a \$75 bill, I'll say to start with. I think most of the world's currencies held in these large denomination notes. I've done further work—very little of it's used in transactions. I think most of it is in the underground economy. It's not necessarily nefarious.

There's drug dealing, human smuggling, and everything, human trafficking, but I think the large majority of it is tax evasion. Lots of people do that. I'm not trying to be holier than thou and just say everybody who does that is evil, but I'm looking from the government's point of view. Making money by saying, hey, people love these \$100 bills and not figuring out that they're using them not to pay taxes—I've argued that that's penny-wise and pound-foolish. That's the core of the argument.

**COWEN:** From an efficiency point of view, don't you want to price discrimination in your tax system? Say people pay their nannies with \$100 bills. They wouldn't hire the nanny if they had to pay taxes. Furthermore, if the transaction were recorded, they'd have to worry

about social security issues. It's a lot of paperwork and bureaucracy, very forbidding for a lot of people. You're just lowering output by not making it easy for them to pay the nanny with cash.

**ROGOFF:** I do think about that, but the question is why we need \$100 bills for that. You can pay your nanny with 20s, and they'll be perfectly happy because, actually, the \$100 bills are harder to work with for them. No, I think you want to have ways that you can evade the law up to a point. Marijuana is now legal in most places, and maybe the whole culture in society wouldn't have evolved if we didn't have a cash economy that could pay for that. Again, I think it's a question of calibration, regulation, where you want to put things.

**COWEN:** Do you worry about the example of the <u>Canadian truckers</u>, where it becomes too easy to cut off people's bank accounts, and there's too much social power over a lot of people?

**ROGOFF:** Again, I'm getting rid of the large denomination notes and not straightforwardly the others. I absolutely agree there're government excesses. The question is, we have drugs that help people after an operation, and we want to have them, but it doesn't mean we want to have them freely floating in the economy. Also, we can phase out \$100 bills and \$50 bills. We can change our mind later and decide that we overdid it. I don't think we would. I think it will continue to go in that direction, but it's a matter of costs and benefits.

**COWEN:** Do we also have to ban <u>stablecoins</u> then? Because you can make \$100, \$500 transactions in stablecoins, and not everyone is used to doing that now, but you figure, within two years, your AI can do it for you if need be, and we're just pushing more people into stablecoins.

**ROGOFF:** Absolutely. In the same book, I said we <u>need to regulate cryptocurrency</u>. There are different kinds of stablecoins, and it's not clear where it's ending up in the long run, but I think stablecoins eventually have to have *some* kind of parallel revealability to what bank accounts have. Not necessarily exactly the same, but I know that's where we're headed. I think the regulators are pretty favorable to stablecoins, actually, on the whole, but not if they're being used to evade taxes and all kinds of regulations.

**COWEN:** The issuers can be abroad. In that sense, it's quite different from domestic banks, from currency. If someone has a stablecoin account in the Cayman Islands, and they make a transaction with someone with a stablecoin account in Estonia, how much say do the US regulators really have over that?

**ROGOFF:** We *don't* have much say over that. You already have that the case to some extent with bank accounts. You can mitigate the problem. You can't eliminate it. That's generally true of cryptocurrency. You can try to regulate it. You can't completely eliminate it. Probably, a lot of sanctions evasion is being done with stablecoins in cryptocurrency, and clearly, we have not been able to touch that.

**COWEN:** Should the US issue a CBDC, a digital coin?

**ROGOFF:** Let me put it this way, I don't think we should be the first to try this. Right now, we're on top. I think we peaked, but that's another question. We are winning. *Why* do you want to change the rules of the game when we're winning? Because it's not about the

currency. It's about treasury bills, it's about the interest payment, it's about market clearing.

Also, we're so big. We probably are more likely headed towards having competitive stablecoins which are regulated, which have some kind of lender of last resort than a CBDC. I'm skeptical of that. You put yourself in a position where one screw-up can paralyze everything. It wouldn't be good if we had five stablecoins, and one of them had a problem.

I tend to think that's something for Latvia or Singapore to try, and not necessarily the US. Yes, maybe in 50 years. To be fair, Europe's talking about it, but they're talking about what we call a <a href="https://www.wholesale.cbbc">wholesale CBbc</a>, which is among the banks, and that's a completely different animal.

#### On macro puzzles

**COWEN:** A standard macro puzzle today. We had a <u>disinflation</u> from post-COVID inflation. It went from 8.9 percent to something not too far from 3 percent, and there's no big recession. How do you interpret that? Were the rational-expectations people right that it was credible, and we just did it? Or the people who say it was all supply shocks—are they right? It's a big puzzle to me. What do you think?

**ROGOFF:** I think it *is* a big puzzle is the first thing to say. I'm not going to claim I thought that was going to be painless, bringing the inflation rate down. I don't think I was out there quite at the <u>Larry Summers</u> level, banging on the table, saying that there had to be a big recession. I certainly do not buy the idea it was all supply shocks. That's just nonsense. There are these people who say, "Oh, it was just the supply chain. The shipping lanes were closed and all that stuff. As soon as the supply chains were back, inflation was down."

Excuse me, the supply chain problems make the price go up. When they go away, the price should come down. It did not. Even in countries which didn't do as much macro stimulus as we did, they did a lot, and they all, of course, kept their monetary policy easy.

Yes, the credibility is remarkable. If you look at inflation expectations, they moved a little bit. I'm talking about the professional. The consumer ones moved a little more. But considering what just happened, that inflation expectations didn't move more—it's remarkable.

To come back to the earlier point about solving our debt if we ever have an inflation, I don't think that's going to happen again. When we have a second inflation, that time the credibility's really going to be shot.

**COWEN:** What else do you think of as an unresolved puzzle in macro, besides the disinflation?

**ROGOFF:** Boy, that's a really good think because I think about research questions all the time. It's certainly been very surprising to me how much bank regulation has created all these arbitrage issues across things that didn't exist. I'm not sure this is completely unresolved, but when I was doing my book with Maurice Obstfeld, we thought of what we call covered interest parity as just something that holds like law. In other words, if you borrow in one country and you borrow in another country but do some kind of forward contract to undo it, you got the same interest rate. It's not true anymore.

I think there's just a range of these puzzles that have come up since the crisis. I suppose another one would be, what kind of inflation rate do we really want to have? There's a lot of debate about that. There are people who say it shouldn't be 2 percent; it should be 4 percent. Some people say it should be 0 percent. I think that's a big question.

**COWEN:** Do you have any guess on the covered interest parity issue? Because that bugs me all the time. Do you think it's an institutional friction? Or there's some kind of unmeasured risk that we're not seeing or picking up? Or something else?

**ROGOFF:** It seems to be that the banks are prevented from undoing it, that we have some of these regulations, for example, that just restrict the size of your balance sheet. The banks used to just be able to freely borrow and lend and undo things. So, you'd borrow in one currency, lend in the other currency, and that's how you'd undo it.

There's just been a range of puzzles like that. Of course, the biggest puzzle is productivity. If I go to a country like the UK, how do we get productivity? And exchange rates are still a puzzle. You asked a question about it before, but we don't have a good, fully satisfactory explanation of them.

**COWEN:** You'll be doing a book tour in the UK soon. Why has their growth, their productivity growth, been *so* slow? Again, we all might admit this is a puzzle, but it surprised me. They have plenty of science. They have some great universities. They played a key role in developing vaccines and other innovations, and they seem entirely stuck. **ROGOFF:** Yes, it's been a generalized problem in Europe, although you think they'd be doing better, but I think part of it is this sucking sound of the United States with the brain drain that we have. You and I both know about <u>DeepMind</u>, British company ends up in California. I think there are many examples like that where, when something goes well, the US sucks them off.

Probably, they have this profound <u>problem of the north and the south</u>. The south is rich, and the north is poor, and they just have not been able to figure that out. If you go to London, they're doing great, and they're still doing great, but they've had trouble finding jobs. The manufacturing jobs are going. They haven't figured out how to substitute for them.

The US is at the tech revolution. If you took that away, we don't look so good anymore.

**COWEN:** A lot of countries don't seem to have a sucking-sound problem though. The talented people in northern UK go to southern UK, but you look at Germany, the Netherlands—you don't see the same thing happening in those places. Is it because London is so good that the country as a whole grows more slowly? Is that a curse for the aggregate number?

**ROGOFF:** It's still the case that those countries have hardly been models of dynamism—Germany and the Netherlands. You're right, they've been able to keep people more, partly because they're not English-speaking.

Again, a lot of the difference in how we've done is our tech sector. That's been a lot of the innovation going through the economy. I don't want to sound like I'm drunk with what's going on with our tech sector and how it affects other things, but if you took that away, our numbers would look like theirs.

**COWEN:** Is Milei going to make it succeed in Argentina? What does it depend upon? **ROGOFF:** I hope so. I think he's the best chance that Argentina's had in a long time, which is, fair to say, a very low bar. The thing that he's done that I have not seen before is balancing the budget. If you're a big borrower and you keep defaulting, a starting point is figuring out how not to have to borrow money, and he's managed to do that. I don't know that all his <u>libertarian visions</u> necessarily will come to pass, but he's provided some stability, bringing inflation down.

It's so sad. Argentina, as you know, was <u>one of the richest countries in the</u> world by *any* measure at the turn of the 20th century in 1900. Now they're a lower middle-income country. Their per capita income is *below* Brazil, which is hard to get your head wrapped around. I think there are many reasons, but certainly Peronism, socialism has not done well by Argentina.

**COWEN:** But *has* he balanced the budget? I know he announced a balanced budget, but this is April 2025, and they just borrowed \$20 million from the IMF. It doesn't sound like a very balanced budget.

**ROGOFF:** It's counting the interest payments on the IMF, and yes, he inherited this big debt. They're paying the interest. It's very low interest on the big debt, and I don't know how that's ultimately going to get resolved. They have a lot of problems ahead, but there's a lot of strength in Argentina if they can grow again. I don't want to sound Panglossian about Argentina, but goodness, they had inflation of 200 percent when he took over. The economy was in free fall. Look, there's no magic wand you can wave over the last 80, 90 years of Argentina and make everything right.

#### On chess

**COWEN:** Some chess questions. Once a grandmaster, always a grandmaster, so you can't just say you don't know. Is <u>Gukesh</u> the next dominant chess player, or will he be first among the equals?

**ROGOFF:** He's not even *nearly* first now, even among others. There're a number of Indian players who are very good. I wouldn't put him ahead of Nakamura or Caruana, much less Carlsen. But he's ambitious. He's talented. I wish him the best. It's wonderful that he won, but he has got a long way to go to beat <u>Kasparov</u>, Fischer, Carlsen. It'd be *fabulous* for chess if he does that. I don't see it yet. Do you?

**COWEN:** Well, Nakamura, Caruana—in five years, they'll be out of the scene, maybe before then. Carlsen is already, in a sense, out of the scene. I think he has a 30 percent or 40 percent chance of being not a *truly* dominant player, but say the way <u>Anand</u> or Kramnik were at their peak. One of the top two or three very consistently, and world champion for some number of cycles. Not the way Kasparov was, but something quite impressive. I'm close to thinking that.

**ROGOFF:** It'd be fantastic. I thought you were asking a different question. **COWEN:** No, the *next*, not the current dominant, but is he the next dominant player?

**ROGOFF:** Oh, he could absolutely. Anand and Kramnik were amazing, and he could absolutely do that. He's close to having done it. He'll have a much more difficult challenger next time I would suspect. Ding is an uber-talent—the person he beat—but clearly had all sorts of mental problems in the match. He's been depressed, and you could see him losing it in some games.

**COWEN:** What were your impressions of Bobby Fischer when you met him? **ROGOFF:** He was amazing, first of all. When I met him, he came every day to the 1969 US Junior Championship over 10 days. He sat and he analyzed with us. The first thing was just, "What's he doing with *us*? Why is he wasting his time with us?" We just thought he was so generous.

Obviously, his absolute intensity, his commitment. I don't know if you remember, it's hard to imagine, but he actually used to be weak at rook endings, weak for somebody like that. He locked himself in a room for three months and did nothing but study rook endings and got to be very good. He told us about it. Got a hotel room with no view.

Certainly, some of the ideas he showed, I still think about. I won a game, and he went over it with me, against Steve Spencer. It was the last game of the tournament, which I won. He showed me his ideas. I was like, "I hadn't thought of any of them." It was just his fertile . . . I don't know if they were better—to be completely honest—than what I played. Of course, he's much better than me. Just the imagination of there was this, and we're talking about on move four, on move five, just things that wouldn't occur to me.

**COWEN:** Part of the Fischer legend was that, at least supposedly, he was the greatest overthe-board analyst of any chess player.

**ROGOFF:** Well, Garry Kasparov was no fool and same with Carlsen. I don't know. He was way above everybody in his generation. He did not have the prep that the Russians had. He worked on his own. He was not working with a team. The Russians had all this

communication and coaches and everything. By the way, I was representing the US in the World Junior Championships and things like that. It was a big disadvantage that you didn't have a trainer or a coach organizing information. Fischer was doing that at the highest level. He must have been, by far, the best over-the-board player then.

**COWEN:** Not player. Just someone, if you would sit down with them at the board and show them your game, the claim I've heard is that Fischer was a more astute analyst even than Kasparov. Kasparov might have been the better player, but just willing to put his entire mental energy into over-the-board analysis, sitting there. I think that's part of the Fischer legend.

**ROGOFF:** It's part of the legend. He was amazing. I played against, really, all the top players then with the exception of Spassky. They were all phenomenal, but they weren't all equally good calculators.

The best calculator I ever played was actually a Yugoslav player who reached second or third, named <u>Ljubojević</u>. He beat me. I don't know, I was 16 years old. To try to salvage some ego, I said, "What if I did this? What were you going to do?" And I showed him my best. I thought it was just like a great variation. I don't remember how long, 10 moves. He goes, "Mm-hmm, but then I do this. Actually, it's this," and he goes something, 15 moves.

I never played Fischer. He <u>wrote an article about me</u> once, as you know, but I never played him. Of course, I could well imagine it would be the same. I'm not sure I could tell the difference with Kasparov, Carlsen at that level.

**COWEN:** When Magnus spoke with Lex Fridman, he drew a distinction between players who were incredible calculators—he called Gukesh one of those—and players who were incredible with evaluation, and he called himself one of those. He thinks he's actually not the best calculator. Do you broadly agree with that distinction?

**ROGOFF:** I think it's an interesting question. It's funny because I've seen him write about Karpov, who I *did* play, and he said, "I don't know how Karpov does it. He just *knows* where to put the pieces. He just knows where everything goes, and he's not having to calculate like I do."

His great nemesis was <u>Karpov</u>, and between the two of them, he was the calculator. Karpov was no slouch, but Kasparov was better. I think maybe as Garry gets older, your comparative advantage as a calculator is probably at your peak at a younger age. Garry developed other tools, but he was really good at both. But I would've put Kasparov as a calculator, like a *fierce* calculator.

**COWEN:** Now, you must have been out of practice, but I believe you drew Magnus in a game of speed chess in 2012. Is that the correct year?

**ROGOFF:** Yes, it really happened.

**COWEN:** How did it happen? What's the story?

**ROGOFF:** What I tell people is, if you were a professional golfer once, and you play three holes with somebody, anything can happen—the law of large numbers. But going more into it, he let me have white, we played a <a href="Ruy Lopez Spanish opening">Ruy Lopez Spanish opening</a>, which he had been

playing all the time. He played a variation. I looked; I hadn't prepared. It's just what he was playing all the time.

**COWEN:** Did he play the <u>Breyer</u> like he used to do?

**ROGOFF:** He played the Breyer. That's right. He played the Breyer, and I didn't even know that he played it at the time. He played a lot of things. I didn't know he was playing that. I knew where the pieces go. I knew what I was trying to do and where the pieces go. At one point he made an overly aggressive move that just was a big mistake. I saw it, and I got a winning advantage. It wasn't an easy winning advantage.

I'm convinced that if he had continued the game, he would've won. At some point, he had a choice of repeating moves, and he was losing. So, he just repeated moves. I'm not saying I would've won. I think I would've lost if he kept playing, but it just happened. If I did it 10,000, 20,000 times more, I don't think it would happen.

**COWEN:** What do you think of <u>Fischer Random</u> as the future of chess? Because that's seems to be what Magnus wants. I don't like it, frankly, but what's your opinion?

**ROGOFF:** I'm with you, Tyler. I take joy from classical chess. I *love* watching a beautiful classical chess game. I can relate to it. I'm hardwired to think about it.

Fischer Random Chess—it's a little bit like looking at problems. I respect chess problems, but the positions are often weird and improbable. I just have trouble relating to Fischer Random Chess. I hope I change. I'm just speaking from my age, but I'm so invested in classical chess. I love classical chess. I think about classical chess all the time. I don't know. Why don't you like it?

**COWEN:** With classical chess, not every game, but most games, I feel I can look at the board and have a decent idea of what's going on. I might be wrong, but even then, I can figure out ex post why I was wrong. With Fischer Random, I don't have that sense unless it evolves back into a classical-looking position. From a spectator's point of view, why should I care? That's how I would put it.

**ROGOFF:** Yes, we're on the same page on that, but on the other hand, you mentioned Gukesh. The computers just dominate the preparation. That's why Carlson stopped. He didn't want to spend all the time—

**COWEN:** How are we going to solve that problem then if we don't do Fisher Random, what is your proposed solution? I have one. I'll tell you mine, but you tell me yours first.

**ROGOFF:** Tell me yours.

**COWEN:** That we randomize the first few moves of the opening, so some percentage of games through computer randomization would be like b4, 1, b6, 1, and then they start playing. But you do that with many permutations. They're all playable positions. As you well know, no grandmaster game would go b4, 1, b6, 1, but there's no reason why you can't play from that position. If you have 500 opening alternatives like that, that the players

don't control, I just don't think they can prep that much. The Berlin, the Marshall, the whatever—all these forced draws. I think they actually have to play chess.

**ROGOFF:** I love that idea and, yes, it creates some randomness in what initial positions you get. I love that idea. That sounds *much* better to me. I have to say, as a player, I played like that because I was very isolated in the United States. I wasn't following all the opening innovations. I played all kinds of openings to be unpredictable.

**COWEN:** If everyone does it, it's easier to do. It's like every game is between two <u>Ken</u> <u>Regans</u>, is one way to put it.

**ROGOFF:** Yes, I like your idea. I think it's a great idea, I endorse it.

**COWEN:** Thank you.

Final question for you, for our listeners. Your book's coming out. It's on very important issues of currencies, international trade, international finance. It draws upon a lifetime of your learning and practice and advising. What is it you think you'll do next?

**ROGOFF:** [laughs] Like any academic, I already have my next few years of projects. Some of them, frankly, grow out of the book. I think people have forgotten about political economy. They just think if the central bank says the inflation rate's 2 percent, on average, it'll be 2 percent, and we go home. I worked on that early in my life. I wrote the first paper on why you should have an independent central bank.

I'm working on it again, admittedly with some very talented young people, including Marina Halac at Yale and Pierre Yared, who's at Columbia, but now actually on the Council of Economic Advisors. And just thinking that, no, the political pressures are important, so that's an important topic. I'm also working on China. It's an area I've been working on for a long time. I have some thoughts about comparing China and Japan, for example.

I have a lot of things I'm excited about. Part of what was so great about the book is, I had, I would describe, a mini Renaissance in my research. At least I feel that way. I don't know if the rest of the world thinks that. It gives me joy to have some confidence about some of the ideas, although, as you say, there's much more to it.

**COWEN:** Again, everyone, Ken's new and excellent book is *Our Dollar, Your Problem.* Ken Rogoff, thank you very much.

**ROGOFF:** Thank you.