

Demetri Kofinas: 00:00 Today's episode of Hidden Forces is made possible by listeners like you. For more information about this week's episode or for easy access to related programming, visit our website at hiddenforces.io and subscribe to our free email list. If you want access to overtime segments, episode transcripts, and show rundowns full of links and detailed information related to each and every episode, check out our premium subscription available through the Hidden Forces website or through our Patreon page. Remember, if you listen to the show on your Apple podcast app, you can give us a review. Each review helps more people find the show and join our amazing community. With that, please enjoy this week's episode.

Demetri Kofinas: 00:50 What's up everybody, I'm Demetri Kofinas and you're listening to Hidden Forces where each week I speak with experts in the fields of technology, science, finance, and culture to help you gain the tools to better navigate an increasingly complex world so that you're less surprised by tomorrow and better able to predict what happens next.

Demetri Kofinas: 01:13 My guest this week was named by Euromoney magazine as Central Banker of the Year in 2014, while serving as the 23rd governor of the Reserve Bank of India. Dr. Raghuraj G. Rajan has also held the position of chief economist at the IMF and is currently a professor of finance at the University of Chicago Booth School of Business. He is the author of several books including his most recent, 'The Third Pillar: How Markets and the State Leave the Community Behind'. In this conversation, I engage Dr. Rajan on a wide-range of issues from central banking and interest rate policies to geopolitics, populism, and the systemic risks facing the global economy, including a discussion about leverage loans, junk bonds, and emerging markets. We talk about the demographic challenges confronting countries around the world, particularly developed nations with large, unfunded liabilities and debt levels that exceed, in many cases, 100% of gross domestic product.

Demetri Kofinas: 02:19 We go into great detail about the Chinese political economy and the challenges it faces with the prospect of slower growth, while simultaneously exploring the challenges it creates for the United States amid a disintegrating global order that was responsible for much of the growth seen in international trade and commerce since the end of World War II. I ask Dr. Rajan if he thinks the market's confidence in central banks' abilities to stem inflation in the event of another downturn is misplaced or if extraordinary measures, including the outright monetization of government deficits and bailouts of non-financial companies will come into play during the next downturn. I also ask the

former governor's opinion on MMT, regulations, immigration, and how to reform education for the 21st century.

- Demetri Kofinas:** 03:14 With that, let's get right into this week's episode.
- Demetri Kofinas:** 03:21 Dr. Raghu Rajan, welcome to Hidden Forces.
- Raghu Rajan:** 03:25 Thank you for having me.
- Demetri Kofinas:** 03:26 It's my pleasure having you on the program. I read your book, as I told you, all of it, loved it, in particular, the first part. I liked the solutions that you proffered as well. I thought they were very interesting, this idea of localism. We'll get into it, but I really appreciated the historical narrative, the line you drew from the Medieval manor.
- Raghu Rajan:** 03:46 Yeah, the book attempts to do a number of things, wants to tell ... It's a love story, in a sense, of why capitalism worked. To put that love story together, you need to pick up the pieces that make up capitalism. That's where the historical part comes in. It's telling you that capitalism is not just about markets. It's about a whole lot of pieces that fit together and it's come a long way from, as you said, the Medieval manor, which was all about the community doing everything internally with no markets, with no real state.
- Demetri Kofinas:** 04:20 You said outright in the book that you intended the book to be comprehensive, but not exhaustive. I think that you nailed that exactly. What was your intention in writing the book?
- Raghu Rajan:** 04:30 Well, it was to tell the audience, the reader, what was good about capitalism, why it's not working anymore, and then here are some thoughts on how to fix it. Now, I'm not preaching revolution. I think there are fixes that can help us get back to the system that really works for everyone. The real problem is that policy makers are just moving us in the wrong direction.
- Demetri Kofinas:** 04:59 Well, before we get into all of that, let's take the time to at least discuss the emergence of these three pillars, really the two, the state and the market, from the community the way you describe it. Why did you pick classical feudalism? Why did you pick that period to focus on?
- Raghu Rajan:** 05:13 Well, that was a period when the community was really everything. All activity happened within the feudal manor. The feudal lord was essentially a lord of all that he saw and was law. Markets and the state, for all practical purposes, were in that

community. There were so-called nations, but they weren't really integrated markets or with an integrated government. Each manor with its high walls was essentially its own little mini-state, was very inefficient, didn't trade a lot, but it had a very strong community. That is there were lots of mutual obligations.

- Demetri Kofinas:** 05:52 If I remember correctly, or at least my interpretation was, there were two primary forces that drove the beginning of the growth of the market. One was the consolidation of manors, which expanded the size of the economies, right, because they were closed systems. Another one, and I want to ask you about this more specifically, was the creation of a secondary market for trading third-party debt.
- Raghu Rajan:** 06:12 Right.
- Demetri Kofinas:** 06:12 How significant was that?
- Raghu Rajan:** 06:15 Well, I think the most important was the breaking down of the manor walls, so to speak. The walls were blown up by gun powder and that made the nation-state much more feasible because somebody who had a lot of power, a lot of money, could buy the cannons and break down those walls. Once you had an integrated market, it also implied integrated governance. Those were very important, of course, in making the market economy possible.
- Raghu Rajan:** 06:42 I think to some extent the ability to raise money was critical here and that's where first, the ability of governments to issue debt and for investors to know they would get paid back, because a lot of the time, kings defaulted on their creditors. To enable that to be possible, you needed constitutionally limited government, which emerged in the United Kingdom. You had to trust the government to repay you. That was number one.
- Raghu Rajan:** 07:09 Of course, once you trusted the government to repay you, others could also trust and debt became more liquid. You could sell it to others. That helped in the process, but I think the biggest part of this was to limit the government.
- Demetri Kofinas:** 07:25 Is it fair to say that the market was the driving force because of its potential to grow the pie? That that was putting the pressure of creative destruction in the ...
- Raghu Rajan:** 07:35 I think one of the themes in the book is how markets and governments are symbiotic. We usually think of them as being opposed. More government, less markets. More markets, less

government. These were the battles of the 20th century. Before that, they typically grew together. As the market expanded, the need to govern the area over which there was a common market expanded. We can see some of that even today.

- Raghu Rajan:** 08:00 Think about the European Union. It's an attempt to create a Europe-wide market, but which also means Europe-wide governance, which is the EU. That's the sense in which both of them work together.
- Demetri Kofinas:** 08:12 That's interesting. I'm looking forward to discussing integration in Europe as an approach towards creating efficiencies or unlocking potential growth, which was the model the that Europeans went down, as opposed to the Americans who chose deregulation, particularly financial deregulation. Just for those that haven't read the book to understand, the way I took it ... As I said, the market ends and the state emerged from the community. The market seemed to be the driving energy, the creative energy.
- Demetri Kofinas:** 08:39 The state, its primary role was to protect the gains, to enable, of course, an environment, rules of the road so to speak, for optimal growth, but to protect those gains and eventually to protect certain rights of the community. The role of the community was ultimately as the axiomatic holder of legitimacy and as arbiter of conflict and dispute. That's the dynamic between the three pillars?
- Raghu Rajan:** 09:06 That is the dynamic. I think the state to govern the markets and the community to ensure broadly justice and opportunity. Of course, this was not as explicit as we emerged from feudalism. The community gained power over time only. As we saw the emergence of democracy, as a broader segment of people got the vote, then a group of people outside the narrow elite who dominated the markets, dominated the state, got the chance to express their opinions. That created a sort of control.
- Raghu Rajan:** 09:42 Although, the process of capitalism and made sure that it didn't coalesce into the cronyism, which even Adam Smith was very worried about in his 'Wealth of Nations', that there was always this pressure towards limiting opportunity for the others by limiting competition.
- Demetri Kofinas:** 09:58 There was a constant negotiation. It was an evolution over time, over the centuries.
- Raghu Rajan:** 10:01 Right.

Demetri Kofinas:	10:02	It's how we went from Hobbesian view to something more along the lines of a Thomas Paine or John Stuart Mill.
Raghu Rajan:	10:08	Right. In a sense, you have to see that the evolution, why the process took place, it was when the government promised you that they won't steal your property that it became possible for the market to become more competitive. Why? Before that, you needed concentrated power in markets to stand up to the government. You had guilds, for example, as a protection of business rights. As the government could limit itself and promise that it wouldn't steal your property, then it became possible for individuals to become more competitive. You had this laissez-faire philosophy come in. Let's free the markets. Let us do what we can. Don't interrupt that process.
Demetri Kofinas:	10:52	This is clear in the book and I think it's clear today. In fact, today it's a perfect example because of the multi-polar world we live in. In this period of question, it was the ultimate multi-polar world, right? Classical feudalism. There were the forces that were at work internally within this dismemberment of the manor, but then there were also the multi-polar dynamics outside. Those were all working symbiotically to create this evolution.
Raghu Rajan:	11:15	Exactly. Underlying all this is a common theme that is in Europe, which was many of these developments took place, a competition for power. Power, even in those days, meant greater economic strength. Which country had greater economic strength? A country which could have more dynamic markets. How do you get more dynamic markets? How do you get more productive efficiency in the markets? You have to convince them that, in a sense, what they make is going to be their own. You're not going to seize it as a state.
Raghu Rajan:	11:48	So, countries that could get to constitutionally limited governments typically had a greater possibility of a stronger army and therefore more prowess in the competition amongst European states.
Demetri Kofinas:	12:02	Along those lines, one of the things that you discuss in the book has to do with balance, balancing the negotiation process, striking that balance. What would be a good example historically where that balance was struck? Would it be maybe the post-World War II order?
Raghu Rajan:	12:19	Before that I would say one of the biggest places where you can see this, because there are parallels today, it's interesting, is the populous movement in the late 19th century in the United

States. What was happening then is a growing sense, certainly amongst the farmers, that corporate America was discriminating against them. The big banks were charging them excessive interest rates.

- Demetri Kofinas:** 12:40 The money trust.
- Raghu Rajan:** 12:41 The money trust, as you say. And, the big railways ... there were railway trusts ... were also charging them extortionate prices to transport their grain. They had especially lots of anger against the railways. Because of the opening up of the West as a result of the railways, they bought the land. Now, they couldn't fund the land in a profitable way with the high interest rates and the high cost of transportation of grain.
- Raghu Rajan:** 13:05 They were angry and they protested. This was the first populous movement. Amongst the consequences of this, you can say were antitrust acts, the Sherman Antitrust Act, more direct elections. Senators were directly elected after this. You also had a lot of regulation coming through the successor to the populous movement, the progressive movement. The FDA, for example, the Food and Drug Administration, was set up at that time. Essentially, people were saying capitalism doesn't work for us anymore. It's too concentrated. Let's make it less concentrated, give more opportunity to people. Here are the things we need to do.
- Raghu Rajan:** 13:41 That's a restoration of the balance. This is the point about the tendency of capitalism is for the state and markets to coalesce. What the third pillar, the community, does is rise up and protest and prevent that coalition.
- Demetri Kofinas:** 13:56 That was the community that did that in that case, right?
- Raghu Rajan:** 13:59 Many communities getting together through democratic protest.
- Demetri Kofinas:** 14:02 But, it isn't always the communities. Sometimes it's the market. Does the state ever act as a rebalancer? The market certainly does.
- Raghu Rajan:** 14:08 Well, the state does. If you think about the New Deal during the Great Depression, what happened was communities were overwhelmed. The size of the calamity was really beyond what any small community could bear. Of course, what the state could do is it could bring its tremendous resources to the problem and say, "Okay, we're going to do works projects to put

people back into employment. We're going to do social security." In fact, President Roosevelt basically said, "This calamity is beyond the capacity of any community to handle and that is why the state is moving in to provide support."

- Demetri Kofinas:** 14:44 Is populism, like the community, doing a manual override of the controls that they've handed over to the state? Is it going over the top?
- Raghu Rajan:** 14:54 That's a great way of putting it. I think, in some sense, it is. The danger with populism is that it could go any which way. When it asks for greater opportunity, it could restore a balance to capitalism, make it work for all. But, when it is saying, "Look, it's those other guys who are the problem," it shrinks opportunity to the privileged. In this case, not so much the elite, but the privileged majority that didn't grow up in the country. That becomes problematic because that makes capitalism less effective. When populism turns protectionist, once again, it makes capitalism less effective.
- Demetri Kofinas:** 15:34 You actually draw a distinction in the book between left-wing and right-wing populism. What is that distinction?
- Raghu Rajan:** 15:39 Well, we see that today. The left-wing populists ... These are all, in a sense, caricatures, but left-wing populists basically see the elite as the enemy, as do all populists. But, left-wing sees the value of redistribution. Let's take from the rich and give to everybody. That's going to be the source of salvation.
- Raghu Rajan:** 15:59 The right-wing populists are not so much about fingering the rich as the enemy. Again, the elite that they're more worried about is the professional class, the East Coast bankers. Those are the elite that they're worried about. Really what they want to do is keep out all those interlopers, the immigrants, the minorities who are excessively privileged by the elite. Now, these are all caricatures, so reality is-
- Demetri Kofinas:** 16:26 One is more conservative in its approach in terms of wanting to protect. The other one is more progressive in terms of wanting to take.
- Raghu Rajan:** 16:33 That's the right description. Absolutely.
- Demetri Kofinas:** 16:35 Right. What does the rise of populism today, in the United States and Europe, imply to you?

Raghu Rajan: 16:41 Well, on the one hand, it is a source of ... As populism movements everywhere, it's a signal. It's saying that things are wrong. Do something. It's in that sense that it could be a corrective. The worry, of course, is when it takes the populist nationalist form or the majoritarian populist form that is there is an in-group in the country which deserves what it gets and there's an out-group in the country and also enemies outside the country who are trying to take from us.

Raghu Rajan: 17:11 When it becomes that sort of populist nationalism, the danger is it moves us towards conflict, conflict within countries, between communities, conflict across countries, between nations.

Demetri Kofinas: 17:25 Internally, there is the nativist aspect of this right-wing populism. It's seen in terms of 'build that wall' or the anti-immigrant sentiment. And, then externally there is the nationalist aspect character of it. We've seen that, for example, with the United States vis-à-vis China. Interestingly enough, also with Russia, though with Russia, it's the left that's been driving that discord within the country, which I think is very interesting. That suggests to me that there is a consensus around that in the country perhaps.

Raghu Rajan: 17:55 Well, yeah. Historically, the right has driven the push against Russia and now the left has joined in. I agree, there might be more of a consensus on that.

Demetri Kofinas: 18:05 I want to ask you about this ... I bought it up a few times ... the change in the international order.

Raghu Rajan: 18:10 Yes.

Demetri Kofinas: 18:11 It seems to me it's really picked up. Recently, Italy became the first member of the group of seven major economies to officially sign up to China's One Belt, One Road initiative. Russia has given open support and, I think, has sent troops to Venezuela. That is a disregard of the Monroe Doctrine, a complete affront to the U.S. foreign policy right in their backyard. You could say that the United States did it to the Ukraine as well. Just simply in terms of precedence, I don't think we've seen anything like this since Cuba.

Raghu Rajan: 18:39 Yeah.

Demetri Kofinas: 18:40 Of course, France and Germany, the relationships between the United States and these countries, Brexit. India's recent anti-satellite missile test, very concerning. Of course, North Korea.

Do you feel that we're hitting a new inflection point in terms of the disintegration of the world order that was created by the allies, led by the United States, after World War II?

- Raghu Rajan:** 19:02 Well, as I describe in the book, the post-war World War II order was created with a benevolent hegemon, using what is sometimes a Marxist term. The U.S. was by far the most productive economy at that time. Of course, the USSR was a competition in military power but was no match in terms of economic power at that time. Because of its dominance, the U.S. could afford to be benevolent.
- Raghu Rajan:** 19:32 The rules of the game were created in such a way that it favored the United States, but the United States never actually exercised its power significantly in these organizations. A fair amount of democracy built in, and the general sense was not so much it's me versus you, but we grow together. Your growth is going to help my growth. The Marshall Plan was one big factor, for example, in showing that the U.S. would put its money where its mouth was.
- Raghu Rajan:** 20:00 Again and again, when we look at the system the United States created, it was a system which emphasized common benefit. What's happened, I think, is a couple of things. First, of course, challengers have risen to the United States' pole position in terms of economic might. China's the biggest example. Second, the U.S. had European allies who were always closely knit, but now a number of countries are becoming bigger than these European allies. There's a very real question about whether these European allies should continue to hold their place in these various organizations or whether they should be substituted.
- Raghu Rajan:** 20:39 That means a very different mix at the table, if you will, to call the big powers to a conference. Certainly, it would be the United States. It would be China. But then amongst the European powers, if you took them by themselves, probably Germany would be the only one that would qualify and Japan. If you increase the table size a little bit, the UK, France, but then India and Brazil also. So, it's no longer the G7.
- Demetri Kofinas:** 21:05 Right.
- Raghu Rajan:** 21:06 That's creating tension.
- Demetri Kofinas:** 21:08 Just to hammer that point home about the United States, it was truly, I think, an unprecedented reaction to the end of World

War II because the U.S. played both the role of protector, a father figure, with the nuclear umbrella and just the commitments to Europe, but then also mother, progenitor, fostering, helping growth, being an open market and allowing these other countries to erect tariffs on their goods to help grow their local economies.

- Raghu Rajan:** 21:34 It was a supreme act of benevolence.
- Demetri Kofinas:** 21:36 It was taking ownership of the global order.
- Raghu Rajan:** 21:38 It was taking ownership. It was being the resident claimant. When problems arose, the United States was willing to either send its military power or its economic power to help. Now, not every country took this as benevolence and there were frictions no doubt. There were Cuba. You raised the issue of Cuba, which has been a pariah for a long time. But by and large, the world benefited from this. What's changed, of course, is other countries now coming to the table and saying, "We want a place. More than that, we didn't make this order. We want an ability to change the rules if need be."
- Raghu Rajan:** 22:17 Interestingly, at this point, it's not so much the clamor to change the rules from the other side which is important, it's that the United States itself is backing off from the rule-based system it created.
- Demetri Kofinas:** 22:28 It's really interesting. The United States, I think you would agree, it tried to do ... What it did for Europe, it tried to do that for China. It tried to play that role, in a sense. It opened up its markets with the expectation that China would evolve, would become the biggest economy in the world, and that they could fold it into the global order, that the United States would be able to maintain its global dominance. This did not work and I think the real turning point for the international order was the invasion of Iraq and then, of course, cemented, I think, in the global financial crisis.
- Raghu Rajan:** 23:03 Also, arguably, there was a period over which the hope in the United States was that China would become more democratic.
- Demetri Kofinas:** 23:10 Yeah.
- Raghu Rajan:** 23:11 That the party itself would democratize and over time, like the PRI in Mexico, the party would give way to a multi-party system. It may well be that China's future prosperity lies in making that transition. However, I think since 2013, with the advent of

President Xi, the democratization in the Chinese party has seemingly turned around, that it is powers becoming more concentrated, there are fewer rivals to top positions and so on.

- Raghu Rajan:** 23:42 That's been a big source of worry because Xi is moving away from the more private-sector led, more democratic structure to a more state-led, perhaps more concentrated power in one leader. I think that rings alarms bells in Washington because how do we know that the AI that they're developing will not be used against us?
- Demetri Kofinas:** 24:05 Right, and that's the concern. Not just specifically with China, but as you get more players in the international order, the dangers increase exponentially. Because the levels of bilateral complications increase.
- Raghu Rajan:** 24:17 It does. My sense is that democracy can be a unifying factor only to the extent that democracies are potentially more transparent, swing less on the whim on an individual. To that extent, there has to be a more open process of building up hostilities, which allows action and reaction. It allows people to have time. They know that things are not going to turn on a dime and therefore there is a little more ability to build trust and to react to situations of conflict.
- Raghu Rajan:** 24:51 It's very hard to envisage, for example, a serious conflict between the United States and Western Europe. My sense is that over time, given the right circumstances, China will find that it needs to democratize. Not just for reasons that this is going to prompt more innovation, et cetera, but that system will work better especially closer to the frontier of growth when it doesn't have dominance by one party. But, we have to wait and see.
- Demetri Kofinas:** 25:18 Well, you spend some time in the book, and we've done it on this show in a number of episodes, discussing the history of China from Deng Xiaoping through Tiananmen to today. Initially, the opening of China also led to calls for reform and more democratization. Then, the government clamped down and the deal was, we'll give you growth in return for remaining in power.
- Demetri Kofinas:** 25:41 The danger, of course, is that if growth drops in China or if they cannot keep this up indefinitely, will this result in people asking for, as you say, the community, the community pillar, in this case, asking for greater democratization and what will the government do in response? Will it clamp down like it did in 1989 or will it open up? I don't know the answer to that

question. It sounds like you're saying you're hopeful that it will lead to more democratization.

- Raghu Rajan:** 26:07 Well, my sense is that when the party dominates and it wants to hold onto power, without excessively course of practices, what it has to do is give people a sense that they're going the right direction. The point you made about growth being what it promised people. But, as you get closer to the frontier, the kind of blockbuster growth they had, the 10, 12%, becomes harder and harder. You really have to let people figure out what the new pathways for growth are because you can't build bridges anymore. You've built all the bridges there are and all the railroads. The bridges that needed to be built, you need more sophisticated forms of growth.
- Raghu Rajan:** 26:47 That's when the party's less able to direct. But still, if people are holding the party responsible, that means the party has a great incentive to intervene every time things turn down as we saw the party intervene in the stock market in 2015, as you see the party now trying to open up the spigots for growth, open up credit so that growth takes place. Party control of a market economy can become disastrous.
- Demetri Kofinas:** 27:13 Right.
- Raghu Rajan:** 27:14 That's my sense that so long as the party believes it has a responsibility to deliver growth, people will rely a lot on the party and the party will be forced to do things that, in fact, compromise long-run growth.
- Demetri Kofinas:** 27:27 Right, and a fear of what happens if they don't act. Also, the culture doesn't exist. How important is a market culture to foster a market economy? It isn't just simply the government loosening up capital controls.
- Raghu Rajan:** 27:39 I think the Chinese, as you see Chinese diaspora across the world to the extent that it reflects any element of culture, are very entrepreneurial.
- Demetri Kofinas:** 27:46 Sure.
- Raghu Rajan:** 27:47 Even within China, I think you can see that. The real issue is are they allowed the freedom to do what they need to do? They've built fantastic firms, Ali Baba, Tencent, but now the government is getting into them and the question is, is that going to crimp their growth?

- Demetri Kofinas:** 28:05 I want to come back to the rest of the world because I think one of my thesis has been that whereas domestic issues were the primary cause of economic dislocation in the United States or financial crises in 2008, I think there are greater risks, geopolitical risks, that could drive market actions in the future. So, I think it's important to focus on that, but I want to come back domestically here in the United States and I want to talk about some issues that you brought up in the book, which I think are super important.
- Demetri Kofinas:** 28:31 Right at the very top is debt demographics and unfunded liabilities. How important is the current debt landscape in the United States specifically, but also globally? What the United States does with the dollar impacts the rest of the world and that impacts U.S. financial markets. Are you concerned about the total levels of debt in the United States including unfunded liabilities given the demographic challenges and the need for more growth?
- Raghu Rajan:** 28:56 Oh, yes. It is a source of concern, of course. Perhaps less so than some other industrial countries, but overall, we've seen a build-up in debt over the last so many years. We have significant unfunded entitlements set in place when growth was much stronger and the population looked a lot younger. But, populations are aging rapidly. Less so in the United States than, for example, Germany, but aging populations mean those entitlements will have to be paid sooner rather than later. And, if you're not having kids, it also means it will have to be paid by fewer people.
- Raghu Rajan:** 29:32 That's the big concern in the West. How do we deal with this? Now, Japan, for a long time, has been facing this because it's the most rapidly aging country at this point. But, there is an aversion to any kind of immigration because there's a sense that we're a homogenous culture and they believe they will make it up by greater participation by women and the elderly. They'll stay longer working and will draw more women in, but will also use robots.
- Raghu Rajan:** 29:59 Now, that is becoming harder to contemplate at this point. Yes, Japan uses a lot of robots, but using them in a way to substitute people is going to be harder for all. Robots don't consume.
- Demetri Kofinas:** 30:09 You know what's fascinating, Doctor Rajan, it just came to me now. In an effort to protect their culture from the culture of other people, they are allowing somehow their culture to be invaded by automative culture and robotic culture because the use of robots and automation has impacted the Japanese

culture. It isn't that they have not been impacted culturally. They have.

- Raghu Rajan:** 30:30 You're absolutely right. It is trading off one for the other. Their belief, I presume, is that they can control the robotic culture while they can't control people. But my sense is they lose a certain amount of vibrancy. They still, however, have that choice. Countries that are already mixed because they've got a fair amount of immigration in the past but are aging rapidly, it's harder for them to say, "We will maintain homogeneity," because what is happening is the immigrant populations are growing faster than the "native" population.
- Demetri Kofinas:** 31:03 One of the advantages of the United States is that we do have a lot of immigration. We haven't fallen victim to the same types of demographic issues that the Japanese have or that the Chinese are going to have due to the one-child policy. But, I wonder, is there not an argument to be made for actually wanting less population growth? Granted, if you were to take the debt off the table and if you were to take this obsession with gross domestic product off the table, given some of the environmental issues we have and the issues around resource availability, wouldn't there be an argument to be made?
- Demetri Kofinas:** 31:39 Simply, you brought up the Bubonic Plague in your book. The Bubonic Plague played an important role in freeing up the market in Medieval Europe and enabling the growth. Would there not be an advantage to actually seeing a drop in global population if we could resolve some of our liabilities issues?
- Raghu Rajan:** 31:57 Well, yes, but how do you want to achieve that? Do you want to achieve that through a plague which will have enormous adverse consequences or through a war, the Malthusian ways of achieving a population a decline? Or, as has sometimes been put, through prosperity which often tends to be the best contraceptive. As people get wealthier, they have fewer kids.
- Raghu Rajan:** 32:19 Now, we already see a lot of that in the West. In fact, in Japan, the problem is filling the villages which are emptying out as the elderly die out. But, we have to focus on more, in a sense, sustainable growth. We have to focus on better consumption. Sometimes that means reducing consumption. Sometimes that means moving it towards more environmentally friendly consumption. But, I think the world can sustain greater populations. It would be nice if, by magic, we could stabilize and not have this significant aging stabilized at a certain level. I think that will take time.

Demetri Kofinas: 32:55 How important of a role as the debt overhang in Japan played in driving down growth and fertility in the country over the last two or three decades?

Raghu Rajan: 33:06 Well, there are a variety of explanations. Some people argue it is the dominance of men in Japan which makes women reluctant once they have economic freedom to essentially give some of that up and go back into the household and have more children. That's one argument I've heard. But, it's hard to say what has resulted in this very rapid decline in population growth in Japan.

Demetri Kofinas: 33:33 Apparently, also, younger generations are disinterested in sex. This is also something that I saw a recent article in The Atlantic magazine for the United States. There seems to be increasing studies coming out showing that younger generations are less interested in sex than older generations, which I think is very interesting.

Raghu Rajan: 33:50 Yeah, well, that exceeds my expertise. I don't know why or how that would be the case.

Demetri Kofinas: 33:56 Are you familiar with any of these studies and articles?

Raghu Rajan: 33:59 I certainly know that government attempts to enhance procreation, by and large, have been failures. We pay you to have more kids.

Demetri Kofinas: 34:11 Nothing sexy about that.

Raghu Rajan: 34:14 But, the cost of bringing up a kid looms large in the eyes of a developed country family.

Demetri Kofinas: 34:21 All right, staying on this point about population, but switching to the immigration side ... Now, we're going to start to play with some of the solutions that you put forward. One of the things that we're seeing in the United States is that people are self-segregating. This has been largely seen as problematic in the media, but you actually point to it as being a possible way of empowering the community.

Raghu Rajan: 34:43 Well, let me put it this way. I'm not for segregation and I worry very much about economic segregation where the rich leave a community because they want better schools for their kids and they move into communities of their own leaving the poor behind. This economic segregation has been rife in the United States over the last 20, 25 years, which makes the people left

behind, gives them much less opportunity. They can't really come back into the economy because having good schooling is extremely important.

- Raghu Rajan:** 35:15 I'm not for economic segregation. At the same time, it seems to me that when you think about community identity, when you think about cultural continuity et cetera, people naturally want a vehicle to express that. They want their culture to continue. It seems to me that the right vehicle for that is at the community level rather than the national level. That is, if you do want to spread Mexican-American culture, for example, let that be within the community so long as you also understand you're American. There's a hyphenated part to it. And, that American part ties with the Mexican part. You're really part of both worlds.
- Raghu Rajan:** 35:55 That, to my mind, is less dangerous than perhaps an insistence that everybody across the nation subscribe to one dominant culture at the detriment of their own culture. I'm talking about diverse countries.
- Demetri Kofinas:** 36:08 Right. Well, you talk about the point about people, the advantages that are gained. I think you refer to it as hereditary meritocracy where it turns out that, and I think you cited some studies as well, people change their behavior dramatically once they have children. That that's one of the driving forces for-
- Raghu Rajan:** 36:25 Substantive segregation, no. Absolutely. What is happening is technology has made the returns to good education much higher than in the past. It didn't matter in the past whether you had a ... You could start a car dealership and make a ton of money that way. But today, you need really a strong education to become that top lawyer, to get those top incomes. When a professional parent who's looking at their kids, they're basically saying, "Where can I get the best education for my kids?"
- Raghu Rajan:** 36:53 Typically, it's no longer a middle-class community school. It's either in a private school or it's in one of those rich suburbs where plenty of money and plenty of support is available and there are plenty of well-brought-up kids in class to surround your own kid. That's the segregation of the successful that I'm talking about, which leaves others behind. Who's segregating? Well, the people who are already part of the meritocracy. So, we have an increasing meritocracy because technology has made that, but also that meritocracy's become hereditary because only my children can succeed not the children of those workers or those people who are less successful today.

Demetri Kofinas: 37:36 Do you think our approach to education in the United States is outdated or even broken?

Raghu Rajan: 37:42 Well, it certainly needs fixing. You see complaints. One of the recent news events was about the Stuyvesant School in New York, about the low-level of minorities.

Demetri Kofinas: 37:52 That's right.

Raghu Rajan: 37:52 Now, it is a meritocracy. There is an entrance exam, but people who haven't had the training up to then do much less well than, for example, people from groups that have much better professionalism early on and have better training.

Demetri Kofinas: 38:07 I think the majority of the students are Asian descent. I think I look at-

Raghu Rajan: 38:10 Are Asian-Americans, absolutely.

Demetri Kofinas: 38:13 Remarkable.

Raghu Rajan: 38:13 Absolutely. That's the worry that, in a sense, it's no longer a level playing field and a lot depends on who you're born to and which community you're born in.

Demetri Kofinas: 38:23 You talk a little bit about, or maybe a lot about, solutions to education. We did an episode with a gentleman named Fred Swaniker, who is the founder of the African Leadership University and also a series of other institutions in Africa, and we discussed something that I think you alluded to which is this idea of ... Because in Africa, they have a problem. They have lots of students, not many teachers. So, what is the role of a teacher in such a society and he talked about the role of a teacher being that analogous to a coach.

Demetri Kofinas: 38:54 I think you talk about something similar and it really resonated with me. Have you thought extensively about what the future of education looks like?

Raghu Rajan: 39:00 Well, I think the problems in some classes, especially when you have students from way different backgrounds, is what level do you teach at? Do you teach at the average level? Do you teach at the smartest kids or do you teach at the least prepared kids? Whatever level you pick at, you lose some. You teach to the smartest, nobody else understands. You teach to the least prepared, everybody else gets bored. How do you keep everybody engaged?

Raghu Rajan: 39:25 That's where a new philosophy and, of course, philosophies come and go, but a new philosophy is move the lecture to home. Let people listen to what the class is about at home, but in the class, they work on specific problems where the teacher moves around helping each student address problems that are suitable for their level of competence. Over time, the less well-prepared get better and move more towards the average. Of course, the smartest will still be ahead of the class, but you get a more even class because people are really being tackled at their level of competence.

Raghu Rajan: 40:01 This inversion of the classroom, no longer lecture in the classroom homework at home, but lecture at home ... you listen to it on tape, listen to it online ... and come to the classroom to do homework, is something that's catching on. In some of the poorest areas in India, I've seen this work. It seems to me that in mixed classrooms, something like this may be the wave of the future.

Demetri Kofinas: 40:22 Well, a lot of people in developing countries and also in Europe take advantage of the free content that's on the internet. A lot of people learn that way.

Raghu Rajan: 40:30 Right. That's part of what I'm talking about. Technology has created problems, this segregation of the successful is because the market demands so much higher skills. But it also creates solutions and we should use technology to, in fact, embed those solutions.

Demetri Kofinas: 40:45 I think we also have an antiquated view of technology that was created for a different time and for the purposes of staffing bureaucracies and corporations and isn't really taking advantage of the tools afforded to us by modern technologies.

Raghu Rajan: 41:00 Right. No, and it seems to me that ... These solutions seem incremental, but this is actually a revolution in education.

Demetri Kofinas: 41:07 Right. Oh, huge.

Raghu Rajan: 41:09 I don't think that what we need to do is throw away capitalism. It's work, but we have to recognize the rich supports that are there around capitalism, the role of the community, the role of the pre-market support like schooling, the role of the safety net. And, we have to think about what is broken. How do we rebuild it? That, to me, seems you need to go to these specifics and fix them rather than say, "We're going to have a socialist revolution or we're going to throw out all the immigrants."

Raghu Rajan:	41:38	Those seem to me ... Well, they're drastic and they sound as if they'll do something, but they forget the balance. It's very hard to have a socialist revolution and still have democracy.
Demetri Kofinas:	41:47	Right. Yeah, your approach of inclusive localism, as you call it I believe, is much more decentralized.
Raghu Rajan:	41:54	It's decentralized. It's let's fix 50 different things in order to make this work. It's not soak the rich, tax the rich. More taxation maybe on the cards at some point.
Demetri Kofinas:	42:06	Point is you don't know.
Raghu Rajan:	42:06	We don't know.
Demetri Kofinas:	42:08	The whole point of your model ... It's funny because we're talking about this before we turned on the microphones. I've heard other interviews that you did or one specifically where you kept being asked for specifics, but I think that goes against the point of your argument which is the idea of giving up control, giving up more power, giving up more control. I wonder how much of that is because you're Indian.
Raghu Rajan:	42:25	Well, I think it's part Chicago, part Indian. I've seen the damage that central governments can do but also, it's actually also from my international experience. When you look at why and how countries grow, it's never because in Washington we decided we have this development strategy, we're going to send aid into that country, it's going to grow. Often the countries that grow are not the countries you thought were most likely to grow.
Raghu Rajan:	42:50	At one point in the 60s, South Korea looked like India and the view was India will grow much faster. All the development economists went to Indian. Nobody went to South Korea. They developed faster and now they're a rich country. I think growth comes spontaneously. It comes from within and that's why I'm saying decentralization, empowering the community, helps communities pick up. Even devastated communities like the Pilsen community I talk about in the book, which had very high rates of crime, murder rates which were extraordinary, but still managed to pick itself up. You can't look at a community and say, "How can they do it?"
Demetri Kofinas:	43:26	I think also it's going to be very difficult. Let's assume that the Democrats win in 2020. They're more likely to win if the economy goes into a recession or if financial markets drop by

another 20 or 30 or 50%. But then it's going to be very difficult to raise taxes, right?

- Raghu Rajan:** 43:42 Well, it is, but there's no consensus on these issues. We can get a consensus for tax cuts if the Republicans are a majority. You can probably get a consensus for some tax increases, but not beyond a certain point, if the Democrats in the majority.
- Demetri Kofinas:** 43:57 The reason I ask is because one of the schools of economics that's become very popular recently among some of the more Socialist Democrats like Bernie Sanders or Ocasio-Cortez, is Modern Monetary Theory, MMT, particularly it's view around public debt as a constraining source on state action and that really all that matters is inflation. If, again, the Democrats were to be elected in 2020 and we were in a recession say, or the markets were taking a downturn, they could turn to these tools and monetary expansion instead of raising taxes and this could be an entirely new paradigm of operation for the American economy.
- Raghu Rajan:** 44:44 Look, I believe Modern Monetary Theory takes what is a set of circumstances and extrapolates it ad absurdum to some extent. At low interest rates, printing money is like printing debt. They're very equivalent. There's only some level of debt that a country can issue without, at some point, a concern about whether they can repay it. A lot depends on what's done with the money that's issued. If it goes immediately in funding consumption, in redistribution to people to spend as opposed to investing either in the human capital or in long-run assets, there is a very real question of who's going to repay it?
- Raghu Rajan:** 45:23 At some point, the markets turn against you and no longer accept it. With currency, the view that you'll default shows up in inflation. You get higher rates of inflation. Yeah, well, for a little while-
- Demetri Kofinas:** 45:35 Which is non-linear, inflation.
- Raghu Rajan:** 45:35 Which is non-linear.
- Demetri Kofinas:** 45:36 Non-linear. The idea that we can simply look at inflation as an indicator to decide when we can stop printing-
- Raghu Rajan:** 45:42 Right, it just takes off at some point. Look at Venezuela today. The point is, you have some room, but you are not divorced from having to think about whether, in fact, what you use it for is really productive and whether it will generate the returns

over a long time. It is possible for the markets to lose confidence on a dime. Every emerging market has faced that including India, which meets the conditions for MMT. It issues debt in its own currency. But, trust me. We do know if we issue more than a certain amount of debt to finance stuff we will have problems.

- Demetri Kofinas:** 46:15 It's also funny because it feels like we've gotten to the place where no one actually expects us to pay the debt back. It's an odd thing. The national debt no longer really is ... It's not something based on people's expectation that it will ... At some point, there's going to be either a soft or hard default on ... Well, at some point ... There is, in a sense, as you print money, but there's no expectation. We've gone way past the debates that we had in the early 90s around the national debt when it was at \$4 trillion dollars.
- Raghu Rajan:** 46:43 Well, it is to some extent a confidence game, right? At this point, you can issue a lot of debt because there is appetite for it across the world. People are looking for relatively safe assets and the U.S. looks relatively safe compared to other countries. That doesn't mean if you go out on a limb beyond a certain point people will still have trust. In a sense, this is one of those equilibria where you have to be dependent and reliable in order to enjoy trust.
- Raghu Rajan:** 47:11 If you are seen as unreliable, at some point, that trust will break and then it will be impossible to issue any more. We've seen this play out in other countries. There's no reason if circumstances change that the United States' position will remain as solid.
- Demetri Kofinas:** 47:25 Dr. Rajan, I want to go into more details with you on that and I also want to specifically talk about the Fed and interest rates, and, in the context of what we just discussed, this prospect of reentering this paradigm of inflation versus deflation, and also what your concerns are for this market going forward and what areas in particular you might be concerned about, like leveraged loans or the corporate bond market or emerging markets. But, we're going to do that in the overtime.
- Demetri Kofinas:** 47:51 For our regular subscribers, you know the drill. If you're new to this show or you've been a long-time listener but are not subscribed, you can do that directly at patreon.com/hiddenforces and gain access to the overtime segment through the Audiophile subscription. Or, if you want access to the transcript or the 21-page rundown to this week's episode which is full of links and charts and additional material

related to my preparation for my conversation with Doctor Rajan, you can subscribe to that as well. All of that through Patreon. Again, patreon.com/hiddenforces.

- Demetri Kofinas:** 48:25 Dr. Rajan, thank you so much for coming on the show.
- Raghu Rajan:** 48:28 Thank you very much for having me.
- Demetri Kofinas:** 48:31 That was my episode with Dr. Raghu Rajan. I want to thank Dr. Rajan for being on my program. Today's episode of Hidden Forces was recorded at CMD Design Studio in New York City. For more information about this week's episode or if you want easy access to related programming, visit our website at hiddenforces.io and subscribe to our free email list.
- Demetri Kofinas:** 48:56 If you want access to overtime segments, episode transcripts, and show rundowns full of links and detailed information related to each and every episode, check out our premium subscription available through the Hidden Forces website or through our Patreon page at patreon.com/hiddenforces.
- Demetri Kofinas:** 49:18 Today's episode was produced by me and edited by Stylianos Nicolaou. For more episodes, you can check out our website at hiddenforces.io. Join the conversation at Facebook, Twitter, and Instagram @hiddenforcespod or send me an email. As always, thank for listening. We'll see you next week.