

Alphachat: Ricardo Hausmann on the tragedy in Venezuela

**Cardiff Garcia** We are going to talk about the scale of the current meltdown in Venezuela, and we are going to talk about all the policies that are responsible for it. But before anything, I actually want to give some sense of the wider context, of Venezuelan history, and I actually want to start all the way back in the late 1950s when, after a brief period of dictatorship, Venezuela re-established a democracy, and through the 1970s when it had the big oil boom and bust. In that mid-century, can you just give us a sense of what the Venezuelan economy looked like, the extent to which it was already dependent on the petro state, and whatever distortions were already forming because of the reliance on oil.

**Ricardo Hausmann** So oil became Venezuela's largest export in 1925, and Venezuela became the largest exporter in the world in 1929. And it remained so until about 1965. In that period, say between 1925 and 1975 call it, that 50 year period, Venezuela was the fastest growing country in the world, and it went from being a very poor Latin American country with an income similar to that of say Central American countries at that time to being the richest Latin American country. And that reflected itself in the fact that it attracted massive immigration. It attracted some 700,000 Spaniards, Italians and Portuguese in a country that at the time had something like seven million people. It attracted probably something like a million Colombians and so on.

So it was a magnet. It was wealthy, prosperous. It used massively its resources to invest in infrastructure. When democracy came along it prioritised education, health, public housing. And it was a fairly prosperous place. University education was free. Not only primary and secondary but university education was free. There was very cheap access to electricity, water and so on. So it was a fairly prosperous place. When in 1973, 74 the price of oil went up, then the country had these grandiose plans. Very much State centric at the time. State owned enterprises in steel, aluminium, ship-building and all sorts of other things that ended up in very bad failures, and the 1980s was a very, very difficult period in Venezuela.

And it was a period where the country responded with the idea that the decline in the price of oil was this short-term phenomenon. That you just had to hunker down, put some controls here and there and wait for good times to return. But good times never really returned until actually quarter of a century later. And so by 1989 the country realised that it was in a place that it could not go further in and tried to do restructuring, open up the economy, eliminate these controls and see if they could get some new dynamism going.

That became politically very controversial. That led to the military coup attempts that Chávez organised in 1992. And that led to an anti-reformist President being elected in 1993, only to change course and continue reforming after 1996. And 1997, 98 were supposed to be the years in which all these reform efforts were going to pay off. They opened up the oil industry and oil production started to go up for the first time in a long time, by a lot. So things started to look as if they were going to pay off, but in January 1998 the price of oil collapsed. By August 98, Russia defaulted. That generated massive financial contagion in the rest of the emerging markets. It hit Venezuela very strongly, both because of the decline in the price of oil and because of this financial contagion that shut off access to international finance. And in December of that year we had elections and we elected Hugo Chávez.

**Cardiff Garcia** Yes. Ricardo, as you said, at the end of the 1980s and the early 1990s, there were some attempts at reforms, partly to reduce the State's reliance on oil but some other changes too, including the acceptance of an IMF proposal. This all started with the election of Carlos Andres Perez in 1988. Why did those reforms not work? Or why were they so unpopular?

**Ricardo Hausmann** Well I think he had to switch to reform for the very simple reason that he inherited a situation which the fiscal deficit was huge. Was 10% of GDP. The country had no access to international finance. International reserves de facto were negative. So the only way he could face that situation was to ask for international financial assistance, restructure the debt and open up the economy. So his degrees of freedom were very limited, because essentially as of January 1986 the price of oil had collapsed and the previous government had essentially not adjusted and used its international reserves until they had dwindled completely. So I think that there was no space... In his first administration the price of oil quadrupled. In his second administration he didn't have much to distribute. So I don't think it was as much an ideological change or a political change as a contextual change.

**Cardiff Garcia** Yes, you mentioned his first administration. To be clear, that was in the 1970s. His second administration was the one that we're discussing now. He was followed by Rafael Caldera who, as you said, was also an anti-reformist. Can you talk a little bit about the conditions in place in Venezuela when Chávez was elected that made his own populist message appealing?

**Ricardo Hausmann** One of the characteristics of the previous system was that there was significant political competition. An incumbent government, an incumbent political party had a less than even chance of being re-elected. So there was a lot of political competition.

But the situation had been very tough throughout the 80s and 90s. And so Chávez came in with a fairly attractive discourse of saying: Yes, there's a lot of political competition between people who are essentially the same thing. I am something very different. The reason why you are worse off is because they stole the money. I'm going to come in and I'm going to restore the money to you and not to them.

And that was his original discourse and that's how he came to power initially. He said that he was not a socialist, that he was just a reformist that was going to get the corrupt politicians out -- say, like Mani pulite in Italy or the Lava Jato in Brazil -- it was going to be a change of regime where the old political parties were no longer going to be there and this was a new kind of more militaristic political leadership.

**Cardiff Garcia** Right. More militaristic political leadership. It turned out to be very much a cult of personality, and before we start talking about his policy agenda in the late 90s, in the 2000s and through to his death in 2013, I want to talk for a minute about the rhetoric he used and the kind of populist tactics that he used to stay in power. We had a conversation about this with Sebastian Edwards in the context of macroeconomic populism earlier this year, and I want to ask you to apply some of that conversation or some of those ideas to Chávez himself.

What do you think it was about the rhetoric he used and about his own political abilities that allowed him to stay in power despite doing the things that by Western rationalist standards people tend to find quite repelling.

**Ricardo Hausmann** Well, in the first couple of years he was focused on changing the constitution in order to create a much more powerful Presidency, with a much longer period and with a possibility of re-election, with a single chamber in the legislative branch

instead of two, so as to make it more pliant. And with the ability to scrap all the judicial system and start from scratch.

So he concentrated his first couple of years in consolidating political power. He did not change the economics much. He left the same Finance Minister that [previous President Rafael] Caldera had, Maritza Izaguirre, and there was no discernible change in policies.

Then in the year 2000, with the new constitution, he got re-elected and there he started to move a little bit more on the economic front, and in one day he asked the more-pliant-now National Assembly to grant him the power to pass laws through Presidential Decree.

And on one day he passed 48 laws through a Decree. No-one had read the laws. Nobody had discussed the laws. That led to a massive protest movement, and that massive protest movement ended up unseating him for something like 48 hours, and then his popularity had actually collapsed and things were not looking well for him.

Then he started blaming the oil company for things, so he ended up trying to mess with the administrative autonomy of the oil company. The oil company went on strike and he ended up firing 20,000 of the 35,000 employees of the oil company and took over control of that. So at that time he was deeply unpopular. There was a massive political movement against him. And at that time the price of oil started to increase. So his real populist policies started at around 2003, 2004, not in 1999 when he got into power.

And there he started to use oil money to massively expand social programmes. These social programmes were mostly designed by Cuba, in Cuba, with significant Cuban advice. And he started to spend a lot of the increasing oil money in that.

In the time of the strike and stuff that happened around 2003, he imposed exchange controls and he imposed price controls. They were imposed initially in the context of a crisis, because the oil company had shut down and so on, but then when the price of oil after 2004 started to go up, and the company had plenty of foreign exchange reserves, they could have taken out all these controls. They were no longer needed...

So they used exchange controls, price controls, import controls as a way of keeping control on the private sector -- as a way of making the private sector pliant and dependent on bureaucratic decisions of the State. And there I think Sebastian Edwards' model of saying: Okay, what we are going to do now is we are going to expand

spending, this is not going to generate inflation because we're going to have price controls, and this is not going to generate a balance of payments crisis because we have import controls... But that, mixed with the fact that they could borrow internationally, and they borrowed internationally in massive amounts. In incredibly massive amounts.

So they went out on a borrowing binge, and capital market were super happy to lend to Venezuela because they thought Venezuela has this immense amount of oil. Supposedly the largest oil reserves in the world, and the price of oil is going up so the value of that collateral that the country has to pay back has gone up, so the country borrowed massively in the period of the oil boom. In 2004 the public external debt was something like \$25 billion. Our best estimate is that today it's something like \$178 billion. So it multiplied by a factor of seven in the period of the oil boom.

**Cardiff Garcia** Yes. And to be clear by the way, when I was referring to populism earlier I wasn't just talking about economic populism or anti-elitism. I was also talking about the anti-pluralist, exclusionary populism that has been common in 20th Century Latin America.

So when you describe for instance his altering the institutions very early on, before he started altering policies, that to me strikes me as a very populist approach. When you start talking about him firing 20,000 of the 35,000 people who worked for the national oil company, that's interesting as well because of a paper that was just produced by your own Growth Lab which talks about the huge missed opportunity since the early Chávez years in investing in the oil sector, [manifested] in declining output and in over borrowing against oil revenues. It sounds like that represented a significant human capital loss, management talent loss, very early on. And one that still has consequences even today.

**Ricardo Hausmann** Well, spectacularly so. Let me just give you a sense of the magnitude of the mismanagement of the oil industry. In 1998, the year before Chávez got elected, or the year in which in December of that year Chávez got elected and he took power in February 1999. In 1998, Venezuela produced 3.7 million barrels of oil [per day]. Today it's producing about two. If Venezuela had maintained its market share in the world oil industry -- which it could have because it had infinite reserves, it had the largest reserves in the world -- it would be producing two million barrels more than it is currently producing. With the same market share. So the collapse is immense relative to history, and it's immense relative to this opportunity cost of where it should have gone had it just kept its market share the way it was.

That collapse of the oil industry happened in two steps. First, all the know-how of that industry, centuries of man-years of experience was lost in the firing of these people. They were not only fired but persecuted, so most of them left the country. Many of them left the country. And they caused, for example, an oil boom in Colombia [where many of them moved to]. Colombia went from producing 200,000 barrels of oil [per day] to a million barrels of oil thanks to the fact that Venezuelans knew how to extract much more oil from the fields that Colombia was already exploiting.

So there was a massive loss of human capital. They also wanted to create a politically conscious oil company, so they started to put an enormous amount of social programmes and other things on the books of PDVSA, the oil company. And as a consequence they starved the company from investment and they ran the company in an amazingly corrupt way, and this is really not just talk about corruption but evidence of corruption in massive ways. There were these foreign oil companies... These foreign oil companies have been complaining to the government that they want to wrest control of the procurement of oil projects because they know that this procurement is being done at multiples of what things should cost. There's people that have been found in the US owning hundreds of millions of Dollars of money that has been laundered out of PDVSA and so on.

So they really destroyed the hen that laid the golden eggs, at the time when their own plans and their own announced plans was to move Venezuela to produce six million barrels of oil. And instead of increased production they have never been able to stop a very rapid decline in production.

**Cardiff Garcia** You mentioned earlier the price controls, the FX controls, policies whose results were papered over for a little while in the 2000s because the oil price kept climbing. Can you talk about some of the other policy changes that Chávez made, and in particular around the private sector, the increasing socialisation of the private sector, nationalisations, things of that nature that ended up making it very hard to do business in Venezuela?

**Ricardo Hausmann** Exchange controls and price controls were put in 2004. Chávez won re-election in 2006. And in early 2007 he announced that he was now going to move towards socialism, and he started with a spree of nationalisations. In those days the price of oil was very high, so he could afford to just buy everything that moved or that he fancied.

So for example he nationalised the telephone company that was owned by Verizon. He nationalised the three cement companies that were owned by the Mexicans, Cemex, Holcim and Lafarge. He nationalised one of the largest banks, which was owned at the time by Banco Santander. He nationalised the supermarket chain. He nationalised 3.7 million hectares of land.

So he went on an expropriation spree. At the beginning, when he had money, he would pay for things, and then if these were things owned by people he didn't like, he would just expropriate and not pay for them. So he changed the contracts of the oil companies in a way that essentially extracted part of the expected cash flows out of them, and many of them accepted but a few of them, Exxon, Conoco Phillips and so on sued. And these suits are now being adjudicated by the International Court for the Settlement of Investment Disputes, and these investment disputes in Washington now add up to \$16 billion of claims. Of expropriations that he didn't pay for. And these are only the foreigners.

He expropriated the service companies that provided services to the oil company, because they started to protest that they were not being paid so instead of paying he just expropriated them.

So he took over significant chunks of the Venezuelan economy, and the typical thing is that the moment they took over a company, they ran it to the ground. Production collapsed. They nationalised the steel company. The steel company at the time of nationalisation was producing 4.5 million tons of steel with 5,000 workers. It now has 22,000 workers but it's producing something like 200,000 tons of steel. So they ran those companies to the ground. Aluminium is almost not done any more, when Venezuela was producing about a million tons of aluminium back when...

So essentially they expropriated the economy and collapsed it on the public sector. And in the private sector they created all these constraints and this enormous uncertainty over property rights because everybody else was being expropriated and you never knew when it would be your turn. Owens-Illinois was a company making bottles. They were expropriated. Why bottles? Another company making detergents was expropriated. Why detergents?

So everybody else would not know when would his turn come up.

**Cardiff Garcia** As you look back now on all of these policies, which from the

standpoint of economic fundamentals are obviously problematic, how do you explain Chávez's ability to do all this while maintaining his popularity and his grip on power? Do you think that it was primarily because he was able to borrow against these oil revenues and spend a lot of money on social programmes -- which a lot of people, unsustainably, but a lot of people experienced as rising living standards for a time? Or do you think it was more personality driven? Or if you think it was some mix of both, what would you put more of the weight on?

**Ricardo Hausmann** Well definitely Chávez was a very particular personality, but it is true that for the election of October 2012 opinion polls... When the question was: Is the country going in a good direction or in a bad direction? 60% plus of people thought it was going in a good direction. What they didn't know is that that year the government was running... The price of oil was at 104 and the government ran a fiscal deficit of 18% of GDP. Now 18% of GDP for a fiscal deficit is humongous. In the worst year of the Greek crisis it never reached that level. But in the middle of an oil boom, when you're supposed to put money aside, 18% is just beyond belief. If you work out... If you back out what would have been the price of oil that would have generated fiscal balance in that year, it was a price of oil of almost 200 Bolivars to the Dollar.

So in essence, in 2012 he was spending as if the price of oil was at 200. And all the inefficiencies in production and so on could be papered over, because oil was generating so much money, by just redistributing it you could get people happy.

**Cardiff Garcia** Okay, and now let's go from there, from 2012, to the present day under Nicolás Maduro. How have things either changed or not changed? And then give us a sense of the collapse in Venezuela in the present day. You wrote an article about this for Project Syndicate which is honestly quite staggering to read, as I said earlier. So, yes, can you take us from 2012 and through to the middle of 2017, where we are now.

**Ricardo Hausmann** Well, maybe Chávez knew more than others. He knew exactly when to die, because he disappeared from the scene in December 2012. He was reported dead in March 2013, but was not seen after December 8th or so, 2012. And then capital markets said, you know, you guys have been borrowing so much money, that capital markets shut down for Venezuela. Venezuela, starting 2007, had even borrowed massively from the Chinese. They borrowed \$56 billion from the Chinese just to get an order of magnitude. This year's imports of Venezuela is going to be \$16 billion. So this is almost like 3.5 years of imports of Venezuela today were borrowed from the Chinese back when.



And by 2013 people thought: These guys have borrowed too much. We're not lending to them any more. And throughout 2013, the price of oil remained at about 100. So the prices of oil were super high, but the country could no longer borrow in the same way. As a consequence, the country went into a recession. The exchange rate went through the roof. The black market rate depreciated by several hundred percent.

And then in the summer of 2014 the price of oil collapsed. So in this period, as they were losing access to finance and then to oil revenues, they simply stopped paying, and they stopped paying for imports and they were running these arrears and the importing companies were saying: Well, maybe they'll pay me a little bit later, and a little bit later, and a little bit later.

Eventually they realised that they weren't going to be paid, so many, many companies started to leave the country. Some of them left physically in the sense that these were airline companies that were owed something like \$4 billion and they just stopped flying to Venezuela. And now there's really a very, very small number of airlines flying to Venezuela. There's actually like, I don't know, five times, seven times more airline companies flying into Cuba than there are flying into Venezuela. Just to give you the degree of disconnection.

That collapse in imports, the government decided... Since they could not borrow they decided on two things. The first one is that they were going to remain current on their debts to Wall Street. And that was a fundamental decision. They were going to remain current on that debt, even though they could not roll it over by borrowing because capital markets have closed for them. So then they said: Okay, this is our oil revenue. We have to pay this debt. Every other debt we're going to default on. And the rest we're going to use for imports.

And as a consequence of that calculation, imports declined by essentially 80%. And in the private sector they declined by 90%. That collapse in imports meant that you had no raw materials, you had no intermediate inputs, you had no spare parts, you had no additional capital goods, and then production collapsed. And production started to go down enormously.

So official numbers would suggest that GDP in per capita terms since 2013 has fallen 37%. If you add to that the impact of the decline in the price of oil to income, national income has declined by over 50%. But if you exclude from that the GDP generated by

the government itself which is just estimated by the number of employees the government has, or if you disregard other parts of the economy that are grossly mismeasured, just look at goods like agriculture, manufacturing, mining, even construction and so on, that part of the economy declined by in excess of 55%.

So there's been this massive collapse in output, massive collapse in incomes. If you look at the minimum wage, which in Venezuela given this incredibly fast inflation and so on has become the median wage, the median wage if you estimate it at the black market rate is something like \$20 a month.

But you might say: Well, but, what is this black market rate? What does that mean? So we have been measuring the minimum wage in calories. We look at the market prices of things and we calculate what is the cheapest calorie a family could buy? And if you do that calculation in 2012, a family could buy 55,000 calories a day with the minimum wage. And now a family can buy 7,000 calories. So if you think that a median wage has to sustain a family of five, well five people could not eat enough calories if they spent 100% of their income in the cheapest calorie and no income in housing, footwear, transportation or anything else.

So as a consequence, incomes per capita have collapsed to a degree that it is hard to transmit and understand, and that collapse in private incomes is accompanied by a collapse in public services like healthcare for example. They are just beyond belief. People have been writing pieces that I'm sure are going to win a Pulitzer Prize, because it's just astonishing how life expectancy rates, how the prevalence of diseases that had been eradicated... Venezuela was the first country to eradicate malaria back in 1961. Even before the US did. And malaria is back big time. Measles is back big time. There are no drugs for HIV. There are no drugs for hypertension. There are no machines to do dialysis. There are no cancer drugs.

So there's been an incredible collapse in health standards. And as you know, Caracas is the highest murder city of the world. It beats Central American countries which come second and third as the most violent city in the world. So that is what's happened to the collapse in living standards.

It has a financial implication which I may have mentioned. The acceleration of inflation has been so fast that people have been trying to get rid of money. Money becomes a hot potato that nobody wants to hold, so what economists call the velocity of money starts going up and there's in some sense less and less money in the economy. So the total

assets of the financial system, what people refer to as M2, went from something like \$55 billion measured at the black market rate in 2012, all of that financial system which was \$55 billion is now worth something like \$3 billion.

All the equity of the banking system is worth less than \$200 million. So the banking system has just stopped existing. They have more or less the same number of branches, they have more or less the same number of ATMs, but the amount of assets... The value of the assets that they have under management has declined by something like 80%.

**Cardiff Garcia** I find entirely convincing your argument that the official numbers are dramatically underestimating the destruction, and also that there are very few events that we have to compare it to in the West. The one that it calls to mind for me, because it's the one I've studied, is the Special Period in Cuba in the early 1990s after the end of Soviet subsidies essentially revealed that Cuba had no economy. And that relates to my next question, which comes from a reader. I solicited some questions on Twitter. This is from Gerardo Rodrigues, and he asks: What about the current status of factor markets after so much economic destruction? How much irreversible economic damage has been done?

**Ricardo Hausmann** Well, the damage has been enormous. The first important damage has been this massive outflow of talent. Second important damage is the disappearance and the departure of very, very important business organisations. In the end, macroeconomic policies if they are okay are responded to by firms that exploit opportunities that the market generates and if these firms are not there, if these organisations are not there to organise production, exploit opportunities, that means that the economy will respond less vigorously to any improvement in policy. So I think that the damage has been tremendous, and we don't know the full magnitude of it. I'm sure that there are plenty of skeletons in the closet that we will only find out after there is a change in regime.

But I am an advisor to the government of Albania, and I like my relationship in Albania because Albania had for 45 years Enver Hoxha in power, as the North Korea of Europe. They spent 45 years under Communism, and when Communism collapsed the economy collapsed even further. A third of the population left and so on. But it's been 20 years of recovery, so now I like Albania. It's a pleasant place, and to me when I think of Albania I think that it's a hopeful message for Venezuelans. It says: Look, you can have a horrible

period but societies can recover. They can put themselves together. And it's a belief that I like to have because it makes life much more liveable.

**Cardiff Garcia** Yes. Ricardo, I haven't asked you much about how this is all very personal for you. Not just because you're Venezuelan, but because your criticisms of the government have made you persona non grata in your own home country. And I'm wondering if you can just give us a sense of what that experience has been like for you, to have this kind of antagonistic relationship with the government.

**Ricardo Hausmann** Well the first personal impact is that many of my loved ones lived in Venezuela and over the course of these years people have left. And now there's fewer of my friends and family are there. They're all around the world. There's this new Venezuelan Diaspora and people have struggled to remake their lives in different locations. All of my siblings have left and their children have left. And for the ones that have stayed, life has been very tough and difficult and they cannot have dreams, they cannot have hopes.

I teach at a university, I'm constantly in contact with students that when they graduate they have these great ambitions in life. Kids of that age cannot have these great ambitions in life if they stay at home [in Venezuela]. So that is first. Just the disrupted lives is the first source of pain.

Then obviously the government has attacked me for writing op-eds, or they accuse me of these fancy conspiracy theories of all kinds. But the truth is they haven't been able to grab me but they have been able to put my brother-in-law in jail for being a journalist. So that in itself was also a very traumatic experience for the whole family. So I would say this repression, this oppression, this destruction of dreams has been a very disrupting element of my life these last few years.

**Cardiff Garcia** Sorry to hear about your brother-in-law. I didn't know that. Is he still in jail, or is he out now?

**Ricardo Hausmann** No, he's under house arrest. After spending seven months in very, very inhumane conditions.

**Cardiff Garcia** Again, very sorry to hear that. We have just a few minutes left and I want to close by asking about your writing on Venezuelan debt and what should be done there. We had an earlier podcast discussing options for restructuring the debt. It was

hosted by Robin Wigglesworth with Lee Buchheit and we'll put a link to that up on the page, with Mitu Gulati also.

Any potential restructuring now is further complicated by the US sanctions enacted since that initial interview was taped. The sanctions which have made it very hard, maybe impossible, for US investors to enter into any new exchange of bonds that would happen as part of a restructuring.

But I want to ask about your own writings about this. You've referred to Venezuelan debt as hunger bonds and you've said that essentially investors who buy anew into Venezuelan debt are essentially betting that the government will keep paying them instead of using their funding to provide for its own people. Can you take us through the argument and then I'll ask one or two follow-up questions.

**Ricardo Hausmann** Absolutely. So usually you think that the capital markets are there to provide capital for good ideas that are going to generate value and pay back the loans and create other benefits for the borrower. So you think of capital markets as being angels for good in the world. But when capital markets have to deal with a government that is willing to compromise future cash flows for any cash up front, and it's not using the resources to create any good things for the future, then you're giving money to an authoritarian regime to mismanage in the short run and you are condemning the future of the country with obligations that they will not be able to afford to pay. So that's why I call them hunger bonds.

A very clear example that prompted this was Goldman Sachs lending the government \$850 million at an interest rate of 50%. No-one has a project that pays 50%. So the government has \$850 million now, then they have to pay an amount going forward that they will not have the resources to pay it with. Because they're not using the money in any investment programme that will be able to pay for that debt. That debt is just to prop up the current regime, and in my mind that makes that debt odious. It's a debt of the regime, it's not a debt that should bind the people of a country, because the regime does not represent the people and the regime cannot commit the future of the country. The people's future.

**Cardiff Garcia** Yes. Ricardo, you've also written that JP Morgan should remove Venezuela from its emerging market bond index, because one of the ways in which investors buy Venezuelan debt is through bond funds that track these indexes. It really is a strange quirk of the modern world that index providers can be so powerful, but the truth

is that they typically make decisions about which countries are allowed in their indexes based on strictly financial metrics. And I can see an argument that it might be just as worrying for them to start making decisions like this, as you're advocating, based on their own subjective interpretation of which regimes they themselves find politically repugnant. And even if in this particular case, in the case of Venezuela, that interpretation is entirely justified, that the government is repugnant, it still seems troubling and I'm just wondering if you can take us through your argument again and maybe address that concern I just raised.

**Ricardo Hausmann** Well I think that you're touching on a very important point, but you should be very dissatisfied with the present, because right now JP Morgan does two things. It calculates an index and then it offers vehicles for you to buy the index. And by putting stuff on the index, anybody that tracks the index or any financial manager that his bonus is going to be dependent on how he performs relative to the index will have to somehow have the assets that are in the index. So in some sense JP Morgan both defines the index and offers the index to the public. And as a consequence, because they define the index and they offer ETFs on the index, then they buy Venezuelan bonds in the same way.

So what you would suggest is that maybe what we need is some independent assessor of the odiousness of the debt. So I have suggested the creation of odiousness ratings with my colleague Ugo Panizza from the Graduate Institute in Geneva, we've put out this idea that we should have some independent entity generate these odiousness ratings which should capture the likelihood that a future judge will perceive that the obligations incurred by a previous government should bind the nation or not. That if this debt is odious or not odious.

We have the experience of Iraq where, after Saddam Hussein and with US pressure the odiousness argument was used to say: No, this debt was the debt of Saddam Hussein. It should not bind on current Iraqis because they had no say in the process of deciding whether to borrow that money or in the use of that money. So I think that if anything this is going to make access to financial markets more contingent on governments obtaining the consent of their people in the process of borrowing. And interestingly enough, the Venezuelan government is trying to borrow without asking permission from the National Assembly and Mitu, which you interviewed or you quoted recently, has made precisely that argument. That debts issued by the government without the consent of a National Assembly don't have the consent of the people and future judges in the US are not going

to enforce it, or people should fear that they are not going to be enforced because that debt was issued without the consent of the people.

**Cardiff Garcia** Yes, that's right. And Mitu has written for us on Alphaville, actually, that bond holders will have pretty strong arguments to challenge any forced debt exchange that gets rammed through by the Maduro government in agreement with the new Constituent Assembly, essentially because new governments are bound by the agreements of their predecessors, and for other reasons. Again, we'll put up a link to that on Alphaville. But we have to start wrapping up, Ricardo, and it seems at this point that there is a very high probability that at some point Venezuela will have to enter into some kind of restructuring. Perhaps that time has even been hastened by US sanctions as I mentioned earlier. So this will be my last question.

But by way of background, the Venezuelan government itself issues debt and the national oil company also issues separate debt, but in practice the two are very closely intertwined because the oil company provides the sovereign with its primary source of FX revenues. And combined the two owe I think somewhere between \$50 billion and \$60 billion. But Venezuela has also received financing from China and Russia. Financing that has been lent against pledged oil assets, including Citgo, the subsidiary of the national oil company, based in Texas. And the numbers are big. I think 20 billion borrowed from China, maybe more, and maybe just slightly less than that from Russia and from the Russian oil company, Rosneft.

All in all, the numbers aren't entirely clear just how much Venezuelan public debt there is, and we don't have time to get into too many of the details, but since I did get questions about this from listeners as well, especially from one on Twitter from @globalmacro, I just want to ask in closing what would be, in your estimation, a good outcome in terms of a restructuring or a default or any other result?

**Ricardo Hausmann** Well I think that Venezuela will in order to escape this disaster is going to need massive international financial assistance and debt restructuring. It will need both. The debt restructuring, as you say, has three chapters. Two of those chapters are bonds and there's PDVSA bonds and government bonds. The PDVSA bonds are issued by a corporation and a corporation in principle can go bankrupt or need bankruptcy protection.

So there's a proceeding in the courts, in the law, that's called Chapter 15 of the Bankruptcy Code that says that a foreign corporation that in their home country is under

restructuring can seek the support of the courts in the US. And if the court in the US accepts that, to abide that proceeding, it would impose a standstill on all creditors, and that will force creditors to negotiate a restructuring and that restructuring will be imposed on the holdouts that don't want to participate in the process because that's the way bankruptcy processes work. You get a majority, a two thirds majority typically, of the creditors on board and then the court imposes the resolution on the remaining creditors.

So that would be a solution for PDVSA. A solution for the Republic is that many of these bonds have collective action clauses. Most of them have collective action clauses, which means that a majority of the bond holders can amend the terms of the bond, including the principal and the interest and so on. And if you do an exchange, there's something that they call exit consent, so that as people exchange their bonds they consent to changing the terms of the old bonds. And there are ways of changing the terms of the old bonds that make them less attractive to the holdouts so they wouldn't want to hold out and remain with their old bonds because they are going to become less valuable.

So I think that those techniques that have been developed and that some people like Mitu and Mark Walker and Richard Cooper and others are discussing and thinking about can be potential ways to restructure the market debt. Then there's obviously the debt with China and Russia. I think that the Chinese debt is probably in the order of \$26 billion, \$28 billion. Essentially I think that the Chinese debt is a horrible debt. It was contracted in secret terms for secret uses. We don't know what the money was used for. There's no accounting of it. Entities that received the money have not presented any statements of anything. We don't know where the money went. We know some projects that were supposed to be funded with that money. None of these projects have been completed. Most of them have not even advanced significantly. And all the monies have been disbursed but they are no longer there.

So the mechanism of the Chinese debt is very pernicious. It was borrowed by some entity but supposed to be paid back by the oil company, which had not borrowed the money and consequently had no money to pay it back with. This is very unconventional. So I think that the Chinese debt will have to be restructured very significantly and I don't think that China is going to want to compromise the future relationship with Venezuela on the basis of something that they should perceive as being a dark page in their financial history.