In this episode, we're speaking with Dr Lucie Gadenne, Assistant Professor in Economics Department at Warwick and also a research fellow at the Institute of Fiscal Studies. Lucie is a specialist in tax policy in developing countries.

We'll be talking about why this is such an interesting area to work in. The challenges of field work in the developing world, including relationship building. Why tea is very important. And how her work is challenging conventional wisdom about the nature and impact of consumption taxes.

Doctor Gadenne welcome to the podcast today and thank you for joining us. Can you tell us a bit about how working on tax policies in developing countries is so different to working on tax policies in the UK and USA? And why it's such an important field of study at the moment?

Well to start with, we actually know quite a lot about tax policy in rich countries, but very little about tax policies in developing countries. So the study of tax policy in Economics has a very rich and long history and it's one of our key results state from 1927. That's old by the standards of Economics, but until recently there was very little work on tax policy on countries outside the UK and the US, which meant that if you were a policy maker or international institutions you were trying to use economics to address some very specific policy questions in say Mexico or India, you could only look to results from the UK or the US, and that's problematic because the contexts obviously very different and they're very different in ways that matter for tax policy. Economies in developing countries are very different, market functions differently, their less integrated, there's less trade between different regions, for example, and governments in developing countries are very different from those in rich countries as well, they don't have access to the same tools, they don't have the same capacity to levy taxes in a developing world as they do in, say, the UK. The most obvious difference, one thing about tax policy in developing countries is the presence of very large informal sectors in developing countries. So you have a very large number of firms and individuals which operate completely under the government's radar, in say India or Mexico, on which the government has no information and which the government can't tax, so that's a big big difference of big first order difference, you've got to take into account when you working on tax policy in the developing world.

What challenges do you face in terms of gathering data?

Yes, so gathering good data to answer the questions which I've decided are interesting is one of the big challenges of my job. It's always a big challenge in Economics. It's particularly one where you're working on developing countries. There's different kinds of data you could try to get, and I've gotten on several types of data gathering roots in the past, and they have different kinds of challenges. But most exciting kind of data you can get in my field is probably administrative tax data. That's data that consists of all the information that's in firms or individuals tax declarations, and that's stored by government agencies. That means that for each firm paying taxes, for example, you're going to know sales, its profits, how much taxes are supposed to pay, whether they did pay it. That's gold for research, or that's super useful 'cause it gives you a very detailed picture of what's actually happening on the ground at the firm or individual level. But it's also really challenging to get because it's very sensitive data. You can imagine that governments don't want to share information about who pays what taxes with just about anybody. So, if you're lucky in the, in the rich world, this system set up, you know, formal set ups they applied to get the data in a secure way in the UK you have that, in developing countries that typically doesn't exist, so it's all about building relationships with tax authorities and governments to gain access to the data, and that typically takes several years.

And is that very much based on your, sort of the personal rapport that you can develop, have you got to sort of put some groundwork in before you can even start to make that request for this really confidential, sensitive information?

Yes, so I mean the clichés you know, you're a lot of your field work is having coffee with a lot of different people and that's definitely true in my case or a lot of tea in my case, 'cause it's a lot in India. So yes, you typically start by having conversations with a lot of different people and tax authorities you want to talk to, you know, a mix of high ranking civil servants and the people actually on the ground. That's useful 'cause first it means you get a lot of information on the context and the kind of interesting policy questions that can help you shape your research idea, but also that's how you build trust, gradually over time you've got to find a way to start conversations with policymakers and civil servants around data sharing, around why this could be useful for them as institutions, and how we can do this in a secure way that respects the privacy of the individuals involved.

Do you tend to start with an approach that says look, I'm looking at this issue and if I can do some work around it this will be useful to you. Do you? Sorry, I'm just really interested in how you would start that conversation.

So you always start by trying to think for yourself, ok what could they be interested in? Because typically I mean everything in all the research I do, there's the hope, and it generally I think turns out to be true there will be useful policymakers in the long run, but it's not in a short term always what the policymakers I'm talking to are interested in. So I was trying to think of what could they be interested in. A good way to start is to look at reforms that have happened recently in the country that I could look at with the data, so I could just look at it if they did a reform two years ago, I could use that data to tell them whether the reforms lead to more tax revenues and which kind of firms paid more taxes, for example. So that's a good way in 'cause quite often you know, civil servants and, and policymakers are interested in that, and they don't have the time, there's no specific department to do that kind of work in house, so you can offer to do that for them. So we try to find a way in with something their probably specifically interested in. But also you need to ask a lot of open ended questions like; So what are you guys interested in? What's the biggest challenge your tax authorities are facing right now?, because that's going to give you ideas, so you also need to keep it open mind.

Has that lead to any sort of new avenues? Have you got into a situation thinking I'm interested in this topic and then through that discussion actually come out with a whole new direction of research or a whole new issue?

Yes, so well, yes and no, because in a way you arrive with a, with a research idea and you tend to end up working on that research idea, but the angle may be very different and talking to civil servants on the ground, politicians as well, but mostly civil servants on the ground in my case, really makes sure you have, ensures that you have no blind spots and sometimes they say things that you realize that your research can speak to you realized years and years later. So an example I particularly like is doing my work with the tax authorities in West Bengal in India. I spent a lot of time talking to, you know, fantastic civil servants in charge of administering the value added tax in West Bengal and one of them said this pretty strange sentence at the time, which is that you know with the value added tax VAT system firms actually want to pay the tax and you know that sounds like an odd statement because typically firms or individuals don't like paying taxes. And it turns out you know years later I have a model and I have empirical results thanks to the data they shared with us that actually helped me make sense about what he said on that day, which you know is a nice story

and I've been back to confirm to explain and discuss my results with the this particular person and there was one of the most interesting conversations I've had about my own research.

Is that something that's more unique to the work you're doing with developing countries? Or I mean, do you know whether if you were doing this work in Europe would you be having the same challenges, the same conversations?

I would be able to get hold of data more easily in most countries in Europe, so the UK has this formal data lab system where you apply with a research project, you say you need this data from the government they give you access in a specific location and so it would be easier, but this thing said, you know whenever you need to have a collaboration with government or civil servants, either for data access or just to understand the details of a policy because it's very hard to work on a policy if you don't understand every single detail of it so you need a collaboration with civil servants. So anytime there's a collaboration, you have to think what's in it for them because you know you're not going to waste peoples time, definitely not, you know government officials time. They don't go to help you out on your research just because they want to be nice to you, so you've got to think about what's valuable to them, so I think that's true everywhere. In developing countries there's more distance, geographical, linguistic or cultural differences that you've got to overcome. So that brings in extra challenges, you've got to go there quite often. Well, don't have to, but it helps to have a collaboration with the local researchers or academic who can build a bridge between you and the government official in between your trips.

What brought you to this field and did you have experience of living or working in India before you started to do the research with the Indian government? Or, what was the path that took you into this field? 'cause it's so interesting?

So there's different paths, there's a path to the topics I'm interested in and there's paths to countries so the story with India is interesting. So in terms of topics, I've always been very interested in tax policy, public policy and development tax policy. For some reason I've always thought that would seem very important it's central to politics and its central to economics, and I've always been interested in these two fields. And then it's a question of, you know, you could work on tax policy in France, which is where I'm from or the UK where I live now. Or you could work on it in India or China or Nigeria or Mexico and in these countries there's just a lot more people involved, the challenges are a lot bigger, it just seems naturally more interesting for me to go towards these countries. Also, there's already a lot of people working on tax policy in the UK so it feels more like a fresh frontier to be working on developing countries, and then India happens to be the place where I first went to get minimal experience of research field work in a developing country. Because this I was doing a Masters and there was an opportunity to do some field work on the microfinance in southern India in rural southern India, so I just went there 'cause it sounded like a fun opportunity and I spent two to three months going around rural India and asking questions to a woman in microfinance groups and that was a very important experience in terms of my first exposure to both on the field research and real life in a developing country that's real complex, so it's no coincidence I think that since then I've worked a lot in India 'cause that was my first introduction to development economic really.

So I'm currently working on several strains of research at the same time. One strand tries to understand what we call the incidence of consumption taxes in developing countries by incidents. What I mean is, who really pays taxes, and by consumption taxes I mean stuff like value added taxes, so VAT. So legally when you think about it, when the VAT rate increases, VAT legally paid by firms, but if these firms raise their prices as a consequence of the increase in the VAT that means some of the VAT increase ends up being paid by consumers of the firm's products not the firms itself. So the

incidence is that who really ends up paying changes in taxes. And so I'm looking at that for consumption taxes in developing countries. So this question I really care about and it took me a long time to find a way to try to start to answer it. Because consumption taxes are the main source of tax revenues in developing countries, alot more than in the rich world. Which means that understanding which part of the economy really pay these types of taxes really matters and in the rich world, we actually already kind of know who pays things like the VAT, we know they can be paid pretty much by everyone in the same way or perhaps its abit like new glasses, meaning that richer people pay a bit less VAT as a share of their income than poorer people. In rich countries that's OK because we have massive income taxes and income taxes are very progressive, so they paid more by the rich. So overall we have rich people paying more than poor people because we have a lot of income taxes. In developing countries who have very little income taxes it's mostly consumption taxes. So these taxes are regressive, paid more by the poor in the developing world too that's a problem. So that's why we wanted to look into this and I'm working with a team of people from the World Bank and the Harvard Kennedy School, and we're starting to get interesting answers, and that's in we're looking at a lot of different developing countries at the same time, trying to say something very general about developments in taxation.

Another strand of research I'm looking into these days actually looks at India and whether ration shop systems which are a form of commodity subsidy thats completely unknown in the rich world but very widespread in developing countries, whether these ration shops actually play useful role in India and in developing countries more generally. So these are systems that subsidize consumption of basic food, grains, rice, wheat, sometimes other things, like kerosene for households in a lot of developing countries, and one of the things we're looking at is whether that helps households when they're confronted to a lot of price variation, which is something that happens a lot in the developing world, less so in rich countries 'cause markets are more integrated, and we're finding that these ration shops really do help households when prices vary a lot so when the price of rice on the market varies a lot, your house would get a lot of gain from being able to buy rice from ration shops that are subsidized by the government because not only is the price subsidized of this rice it's also fixed, which means you don't have the risk of suddenly having to spend twice as much of your budget on rice because the market price is changing.

Right, so it's a kind of system whereby those certain necessities will always be available and you know that they won't go beyond a certain price level.

Yes, so their price, so you've got, you know you will always get your, I don't know, 10 kilos of rice for your household each month at a fixed price of say ₹2 per kilos, which is great anyway even if the price is fixed at ₹5 on the market that's great, but it's particularly good for households when the price fluctuates a lot from ₹5 to say ₹20, that's very large, but you know when you have price fluctuations, it's fantastic to be to be sure that you'll have access to some rice at a fixed price. It has an insurance value if you want, the government providing this rice at a price, at a fixed price gives helpful insurance against market fluctuations.

So thinking about results from your work, are there any key trends or lessons that are emerging, for example, into the best ways to tax without harming growth? Or, as you say, the ways to protect people's ability to feed and house themselves?

Yes, so what we are finding early results in our work on ration shops is suggesting that, you know when there's expansions of the ration shop systems, meaning that for example households buy more rice from these ration shops at a fixed subsidised price, not only do we see that households consume more calories, suggesting that yes it did for the same amount of income there able to

afford more food and their feeding themselves and their children better, but also we're finding that they are less vulnerable to changes in the price of rice. So we're seeing that when the price of rice increases, household calories fall, which is bad news, it mean they can afford less food, but it falls less when the price of rice increases, and they have access to more of, for example, subsidized rice in ration shop systems. So we're finding their ration shop systems do have some insurance value in India today, which is very good news. Another interesting result which comes out of my research with some colleagues is that we are finding that consumption taxes such as value added taxes are actually progressive in the developing countries as opposed to regressive in rich countries. So we're finding that in the developing world typically richer households end up paying a higher share of their budget in consumption taxes than poorer households and the reason that is is because of the existence of very large informal sectors. So informal sectors are just products that are being sold to households without any taxes being paid on those, and it turns out we can see the data that poorer households tend to buy more of their budget from the informal sector, some things, like markets or small stores, than richer household and that means that automatically when the government levies taxes on the formal sector, it's going to levy taxes more on richer households. That's great news for taxation in developing countries 'cause it means using things like the VAT leads to a fairly progressive tax system.

And that's the point you are making right at beginning, wasn't it? But if you were to import or kind of strap on a tax policy from a developed country, it perhaps would backfire. So finding out that actually consumption taxes are progressive because these different context is that is that going to be really useful insight in terms of how those governments then might move forward with their tax policies?

Well, we definitely hope so, and you know, I'm working on this with several other colleagues and one of them is at the World Bank and his colleagues there at the bank are very interested in this, because if you're the World Bank and you're trying to advise the country on how to best design a tax system, it matters whether you're saying OK, you should have a value added tax because it raises a lot of revenues but you know why you saying this VAT is good despite the fact that it's actually regressive and the poor pay more of it or is it actually, well, in developing countries the VAT is progressive, so the poor pay less of it because of the informal sector. But that's very different from the point of view of policy practitioners, so it's good news from that perspective. It also means something a bit more subtle than this, which is that the informal sector isn't all bad, its settings, not a great thing, but it's not all bad. In general we tend to think about tax evasion as something that the government should be fighting against, and I'm not saying that's not true, that's definitely still true in general, but what we're showing is that a consequence of the fact that a lot of firms don't pay taxes in developing countries is that it means that the poor end up paying less taxes than the rich to a certain extent. It doesn't mean we don't want firms to pay taxes in developing countries we do, it does mean that when governments are doing policies that try to fight against the informal sector, so bring more smaller firms into the tax net they should also think about ok does this mean that the tax burden is going to be pushed more towards not just smaller firms but also the poorer households that buy from these smaller firms, so paints a more subtle policy picture of the costs and benefits of allowing for these large informal sectors in developing countries.

To be having your work picked up by the World Bank, I mean that's a great example of having an impact on the real world isn't it, Is it something important to you to try and actually have this sort of pragmatic outcome?

Yes, so that's definitely something which you know we're always striving to do, is to make sure that we write these academic papers that are read by economics, but that you know, we also have a version of these papers that's read a lot more widely by policymakers in international institutions, in

governments themselves, but also in NGOs and civil societies so yes, working with someone like the World Bank just ensures that you have a direct pathway to impact from these kinds of policymakers. But you know, we do more than that, we've written a lot of policy friendly summaries, so these are one or two pages summaries where we try to explain what we find using no jargon and no technical terms so that the result can easily be picked up by policymakers. Yes, it fairly obviously crucial it's why we do the research to a certain extent. Of course we're interested in the questions, but we also want our answers to be useful to policy, and for that we need to go further than just coming up with these answers, we need to formulate them in a way that's understandable by a very large number of people.

How much of your time do you spend sort of doing the field work and making those contacts? Is it still a large proportion of your time, or do you when somethings up and running are you able to sort of do it less traveling?

It takes a bit less time every year at the start of your career when you're doing your PhD, you have to invest a lot of time in building these relationships. So during my PhD I spent a grand total of nearly a year in different developing countries just to start relationships and have a lot of coffee with a lot of different people. Now I have to go less often, I mean I still like going and I try to go to India at least once a year and I've got projects in other countries such as Mexico now so you still have to go. But my relationships exist so I can, you know, just keep building on them and I also know people in institutions in the developing countries that I'm working with, academics I'm working with in Indian universities for example and they can work on the relationships as well it's easier for them 'cause of course they're there. But it's still, you know, it's still you have to do at least five or six trips to abroad every year, and that's one of the challenges in working in these crazy times. With that of course I can't do this right now and I'm very much looking forward to be able to get on a plane and go to India because that's how I keep things moving.

The global aspects of what you're doing is something that's always seemed to be quite important to Warwick Economics as a Department, how are you bringing that into the teaching that you're doing or to the formation of, you know, the next generation of economists that are coming through the Department at the moment?

Well, I've been very lucky over the years 'cause I've been teaching an MSc course in the RMS economics program which was about public policy in developing countries and a non trivial share, the majority of my students came from developing countries and a lot of them were thinking about a career in policy back home. So you know, that's an ideal scenario for me 'cause I'm teaching what I research on to individuals who are highly motivated about the issues and who later on may end up being the kind of civil servants, politicians that I want to interact with to do my research in the future. So I can use my experience talking to policymakers in developing countries, trying to figure out what the students could be interested in, but also what could be useful for them in their future careers. And I could also use the fact that you know, some of my research is relevant for the topic and I come to teach one or two modern papers each year because I like them, but also 'cause it enables me to teach the students something about the research process so I can you know, explain how I came up with a research idea, how on earth I came up with the data, the setting to answer the research idea. I could be very nitty gritty about the details about the research process when I teach my own work, which I think is very important because it teaches the students that you know, research hasn't produced a fix stock of knowledge that's never going to change. I teach them what we know about tax policy in developing countries today in 2020, I teach them what we didn't know two years ago and we're slowly figuring out with different types of research. And then I make sure to teach them that some of what we know is very uncertain by pointing out the limits of my own

research, for example, so in this sense, the interaction between research and teaching is very fruitful.

Is it an area that is becoming more popular? Or is it something that's you know, going to be a passion for a select few.

Well, I mean it kind of depends on what we think the evolution of the student body is going to be like for UK universities, but over the last 10 years it's been growing more and more international, and increasingly we've seen more and more students from Asia, and a bit more from Africa, and I'm hoping will have even more in the future. And these students of course they don't want to hear about public policy with examples only from the UK or the US, right? That they're thrilled to be learning about economics with examples from India, from China, from Mexico, so I think, I mean, I've taught at Warwick and I've taught at UCL and since I've talked similar types of topics and what I've seen is a very large and growing interest from the students in those kinds of topics.

Thinking about this insight you're developing into public policy around taxation, the way it might influence government reputation, is there one sort of overarching theme or particular issue that you would really like to see change as a result of that knowledge and understanding you're gaining? Would it be perhaps how governments are held accountable? Or how efficient governments are or something, anything around those lines?

I think it's very hard for me to predict, you know, in what way my research will have been useful by the end of my career and by that I mean will have been useful for policy and in a way that's great, right? That's what's fantastic, about researchers there's so much randomness and uncertainty in the process you start with an idea, and you work on it for a while and you realize you're speaking to a different policy question than the one you started with, and that's fantastic and the policy makers themselves come back to you with new questions, and that shapes your research in a different way, so it's hard to answer that question. This being said, one area which I'm starting now to work on 'cause I think it's extremely important policymakers care about it a lot and will care about it even more in 50 years, and there's too little research, is environmental policy in the developing world. It's very much related to tax policy. . . .

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Doctor Gadenne welcome to the podcast today and thank you for joining us. Can you tell us a bit about how working on tax policies in developing countries is so different to working on tax policies in the UK and USA? And why it is such an important field of study?

At the moment tax policy has a huge role to play, potentially in fighting climate change. I mean, obviously there's a lot of debate surrounding the carbon tax, developing countries are going to have to do a lot of the work in to fighting climate change because they are responsible for most of the emissions right now. If climate change and air pollution is extremely costly in the developing world, air pollution in India, you go to any big city it's very obvious that it's costly right now, so these issues are gigantic and it's super important we all need to work more now. So if you know if I can make a

wish, I would very much hope that interests here, this is one of the issues my research will have talked to alot.