

Tim Phillips [00:00:05]:

Today on VoxTalks Economics, what Germany's license plates can tell us about how venture capitalists invest. Welcome to VoxTalks Economics for the Center of Economic Policy Research. My name is Tim Phillips. Every week we bring you the best new research in economics. So remember to subscribe. Follow us on Instagram as well at VoxTalks Economics. Investors have a home bias or a local bias. That's what economists call the tendency to hold assets that are closer to where they are. But is this just a feature of unsophisticated investors? And is a strong feeling of regional identity causing this bias? Thilo Huning of the University of York and Fabian Wahl of the University of Hohenheim are the authors of a new paper that tests this bias in Germany using a method that I can guarantee you've never heard described on a podcast before. And they both join me now. Thilo hello. Welcome.

Thilo Huning [00:01:19]:

Hiya.

Tim Phillips [00:01:20]:

And Fabian, welcome as well.

Fabian Wahl [00:01:20]:

Hi.

Tim Phillips [00:01:21]:

Thilo explain local bias, home bias to me.

Thilo Huning [00:01:25]:

Yeah. So first of all, you would expect if you are looking at people's portfolios or investments, that people are just looking at the company credentials and then rational decide what gives them the most profit or works best with their risk strategy that they are working on. But what people realized very soon when analyzing these portfolios in the 80s was that American investors have more American shares that they should have, German investors have more German shares than they should have. And actually, people who have more shares of companies that are closer to them than you would expect normally, if you're looking at the company credentials, and that's what the local or homebuyers is.

Tim Phillips [00:02:00]:

Fabian is this just something that's amateurish or is everyone doing it?

Fabian Wahl [00:02:06]:

There is evidence for all type of investors doing it. So we have evidence for some people who invest in companies, some bankers who do it or that have run their private money and invest it in some companies. We have it for venture capitalists like we are looking in this paper. We have it for other types of institutional investors. We have it on a national level. Most of the studies focus on the national level. Right. German, more German stocks or whatever. I think it's there for all periods also in history, also today. It also has not declined in strength, really from the past compared to today. So it's an Obi Christian phenomenon.

Tim Phillips [00:02:46]:

Thilo does this matter economically? Is it inefficient to do this?

Thilo Huning [00:02:51]:

These are two different questions. So first of all, it does matter economically because we find, like in our paper, we find sizable effect of these local buyers. So people do invest way more locally. Right. But also the question whether it's inefficient or not, that's actually quite complicated one. Right? So in a perfect world where you know, perfectly observe people's information and plans, you trust anybody who has a good idea and who is trustworthy, right? But we don't live in a perfect world, so we don't interact and communicate or invest into random organizations from people we have never met. Right. So it might well be that given that there are market inefficiency, for example, that we don't know of because of asymmetric information, we don't know whether we should trust people that say they have a good business idea, right. Locality or regional identity could make things happen that otherwise would not happen. Right. So there could be investments that would otherwise never be funded if it wasn't for this guy from my hometown, right? I have nothing else that I understand about that project, but I do know he's from my hometown and therefore I invest. And if that is a good project, then actually that could be like this bias could help this investment happening. And if it is a good investment, then it could be increasing the size of the market. Right. So it's a complicated question whether it's inefficient or not, right? That depends on your assumptions about the world that we observe around us.

Tim Phillips [00:04:17]:

So this could be perfectly rational. It could be the idea that you want to invest in something because you can go and look at it, or you speak the same language as the people that you're investing in, or that there's less paperwork investing in something that's local to you or in your own country.

Thilo Huning [00:04:34]:

Exactly. That's exactly right. There's evidence also for venture capitalists already that a lot of venture capitalist companies, especially in the US, they actually go by and want to understand what these people are doing in their office, what kind of java they drink, what kind of desk organization they have, and how they treat their secretaries. Right. So there is a reason to actually go physically to that place.

[Voiceover] [00:05:05]:

In February 2023, we brought you the remarkable insight that national stereotypes help to decide whether a country's banks hold another country's sovereign debt. Listen to Orkun Saka in the episode; Do cultural stereotypes influence bank investment?

Tim Phillips [00:05:30]:

Now it's time to take a little bit of a diversion and I'm going to ask a question that I can guarantee that I never ever thought that I would ask. Tell me more about the structure of German license plates. Thilo first of all, why is it important what's at the beginning of a German license plate?

Thilo Huning [00:05:48]:

So if you were German, you would know this as growing up already, right. So a very funny German game is if you're stuck in a traffic jam, you try to guess where the cars in front of you or next to you are from. Right? And you can do that because the first one to three letters of a German license plate is an abbreviation that stands for a region, which is normally the county. So we have these different license plates. So B, for example, stands for Berlin and HH for Hamburg. And this is an important carrier of identity. People make fun of their neighbors license plates. So if you were living in Hamburg and grew up in Hamburg, you'd know that your neighbors who are abbreviated PI are provincial, can I say that? Provincial idiots. These jokes, they are actually a website that we link to in the paper that has collected thousands of these jokes about your neighbor's counties, depending on the abbreviation of the license plate. And the idea is that there's usually not a selection in your license plate, right? So you get the license plate from the region where your car is registered. Normally there is not strategic choice of these license plates. But it's a personal license plate, you go and buy a car, you register it to you, and you get a license plate from the county that you live in.

Tim Phillips [00:07:03]:

And there's a certain amount of emotional investment in this. It's part of your identity, a jokey, part of your identity, what your license plate says about you.

Thilo Huning [00:07:12]:

True. Like, that's a very important commitment to the region, right? You're driving around with this license for some time, right, until your car dies on you or you want to sell it. You commit to a region basically very much connected to this region, especially if you drive around a lot.

Tim Phillips [00:07:27]:

I found out from reading your paper that will be familiar to people in many countries. This was gradually eroded by administrative reforms of the county boundaries. So let's go back to 2012. This is an important time. What happened then?

Thilo Huning [00:07:44]:

So let me take you back first to the 1970s, right? So what happened after World War II is we have really like, these small counties that get one of these abbreviations each. And what happens then, in the 1970s, worldwide, there was this idea that administration is too expensive. We could get economics of scale by just bunching stuff together, putting different counties together, and that was done very much also in Germany. So these different license plate abbreviation disappeared with the counties that were merged into larger, maybe like super counties in Germany, which had no historical background. All of a sudden, some smart bureaucrats figured out, okay, this county here has hundreds and hundreds of histories, but we don't care. This is inefficient. We'll just move the place where people have to get their passports.

Tim Phillips [00:08:33]:

It happened in the UK, it happened in France, it happened everywhere. Yes.

Thilo Huning [00:08:36]:

People at some point got melancholic and thought, well, can we not get like, these license plates back? I mean, people got while in the 1970s, everything was paper based. You had to actually go there to get rid of these. Maybe some people ever never got it right. They always opposed this. But so in 2012, it was a grassroots movement that was basically saying, okay, we want these back. Now everything's digital. There shouldn't be a difference in administrative costs if we get these things back, and it matters to us, we want the abbreviations back, we want these old abbreviations back. Can you not give us a choice? If I live in the super county, can I not choose between the merged one and the old one that I used to have before the reform? In western Germany, usually the license plate that was abolished in the 1970s is then reintroduced and given you as an option. And in eastern Germany these are license plates that are from the early 90s, they're then reintroduced.

Tim Phillips [00:09:32]:

Why is it important in our context today, why is it important that some regions were more enthusiastic about reviving these identities?

Thilo Huning [00:09:42]:

To reintroduce this abbreviation is a multi step process, right? So first of all, you need to have a bunch of people who say we want this and they have to lobby for this strong enough so the local parliament so the county parliament takes it on the agenda and they decide on it and they then say, okay, reintroduce it so that's the county's parliament's decision to make. And then they can go to the German license plate authority and say hey, we just introduced this license plate abbreviation. And then from there on everyone has the choice. It's a combination of grassroots movement, then the local county parliament has to accept that and then people then have to make the decision when they buy a car or when they register a car to their name that's moved and then they have the decision. If they want other license plate, they have to pay €10 of a fee, right? So there's economic costs involved and then they can maybe even decide on a bit more, right? So it's not as expensive as in the UK and other countries to get other parts of the license plates selected, but they give you a bit more choice. But you have to pay this €10. And this choice now includes this new abbreviation of this region that no longer exists.

Tim Phillips [00:10:55]:

This becomes a sort of a measure of how strong this regional identity is. And I'm delighted because it's given us a chance to geek out about German license plates. But if you wanted to measure how strong people's regional identity is, I'm not telling you how to do your research, but I've got another way to do it. Well, could you just not ask them? There must surely be surveys about this.

Thilo Huning [00:11:21]:

Yes, there are surveys about this and to be honest, we thought we would use those as well. But we realized upon inspecting and comparing different surveys that they don't really align. So the question is always social desirability bias. Why are you asking me that? What am I supposed to answer here? Am I telling you of course I like these enlightened, efficient administrative regions? Or do you take me as a peasant if I say I belong to a county that no longer exists? So this is more structurally would say, is this is not like a survey is not an economic decision, right? You can say whatever. The decision of a license plate is something that is an economic decision. You have to pay money for it and you actually have to drive around with it, right? So you have to basically you're carrying it like a flag with you for a couple of years and so there's costs involved, right? You might be made fun of, as I said before.

Fabian Wahl [00:12:18]:

I would add some of these surveys are because of data protection only available on a much

higher level of aggregation. So we talk more like provinces or some on county. But then one survey that only asked distinct thousand people in the whole of Germany and if you want to then go on a regional level, the end becomes really, really low and whether that's representative or you can do a lot with it is really questionable.

Tim Phillips [00:12:48]:

So Fabian, we need to connect this to local bias. What type of investors have you investigated for their local bias? Why did you choose the group that you chose?

Fabian Wahl [00:13:00]:

Yeah, so we focus on venture capitalist investors, so people who invest in startups. Obviously this is partly data driven because there is very good data available to us on venture capitalist investment from the Thompson Reyes Icon database, also for a very long time frame, so more than 20 years. And we think that venture capitalist investors are known to have a very strong local bias, but it's not really clear where it comes from. On the one hand, not as good researched as the national level stuff. And we also think that if new firms coming up, entrepreneurship is a very important topic, right? I mean, you want to have economic dynamics, you want to have structural change. Now we go into, I don't know, electric cars and biotechnologies and all these things, right? So you need to adjust your economy to new restrictions. And in regions where we have a lot of startups and we have a lot of investment activities in those startups, these regions will do better and this will be also something decisive for the fate of the whole country.

Tim Phillips [00:14:01]:

What do you consider to be local for them, the region that they identify with? Because I would have thought that quite a few of these people would have moved around a fair bit.

Fabian Wahl [00:14:10]:

We do two things. So first we have tried and also did get there for roughly 1000 firms. We tried to find out something about the CEOs and CFOs of those firms, so where they studied, where they were born, and so on and so on. But it's very time consuming and actually you don't find for a lot of them the birthplace for example, just a very few. We were more successful to find where they study because that's on LinkedIn. But this only helps you in part. And then we also have the problem that we could do something with it. I think it's in the appendix of the paper now. But then again, our license plate measure is on municipality level, right? Not an individual level, so to say and we'll have a lot of people from either Berlin or from Hamburg, they will all have the same kind of value for this identity measure. So it's not optimal to go for the individual level. So that's why we focus on this more aggregated regional approach. And there we just have a place based concept of identity. So in social psychology there is meanwhile a very large literature

showing that some personal characteristics and all these things are clustered in space, they are non random and these things also persist over time and they have come up with, of course, explanations why this has to be so. For our case, there is evidence that people with strong regional identity don't even migrate that much. And there is also evidence that people who move from one region to another get more like the people that are in the new region over time. So you basically adjust to be more like the people that are the incumbents in newer regions. This is why we say we have these place based component. There is something in the area, the spirit that is around in some places that we want to capture, like in the Silicon Valley or something like this. Right. So this is more like what we want to capture here and why we think that it is place based and we can say something about it. How we actually define it, I mean, in the standard we have taken from the literature that within 100 km might be considered to be a local investment, but we play around with this, we can focus on the same county, we can go for 50km, 30km so on and so on. So we play around a little bit.

Tim Phillips [00:16:19]:

Yes. So when you match these groups of investors with the location of where they're investing, are you finding this local bias?

Fabian Wahl [00:16:30]:

When we look at these 100 km threshold, roughly 40% of all investments that these people do within Germany, Austria and Switzerland at least are considered local investments. Right. So it's fair share. I have to look it up because actually for this regional level home bias, the literature is not that large, but I think for the US it should be roughly similar, it's sizable.

Tim Phillips [00:16:53]:

And is this bias stronger where you have found there is a stronger regional identity based on this license plate data?

Fabian Wahl [00:17:01]:

Yes, indeed. So if you look at our baseline instrumental variable regression, we find that a 1% increase in these license plates from the abolished counties increases the likelihood for a local investment by around 18%.

Tim Phillips [00:17:18]:

Oh, wow. From that, because the way you've done it, you can say that this is causal, this regional identity is causing the local bias.

Fabian Wahl [00:17:26]:

What we do for this in order to convince people is we do this instrumental variable strategy using the idea that political or historical political instability played a certain role in the formation of these identities. There is this theory going back to a paper by Nathan Nana and Paola Giuliano where they say, okay, if you have in general, a more unstable environment, right? Parents don't have that much of an incentive to transmit values in general to their next generation, to their children. You will also not have many symbolic traditions developing and emerging and so on and so on that are upheld. So, I mean, in Bavaria there are a lot of shooting seas that upheld the local identity. And these things don't form that well in areas that, for example, belong to many different states, for example, or because then the identity formation always was interrupted. We then try, of course, this could still be endogenous these kind of where political instability was higher or lower. So what we then do, we just focus on some kind of random, we think random variation in this political instability, which is you change your state because the ruler of your previous state died without a male heir.

Tim Phillips [00:18:39]:

Right.

Fabian Wahl [00:18:40]:

So then what often happened, sometimes there was a war, a conflict about who gets the territory. Sometimes the Emperor of the Holy Roman Empire or what, just gave it to someone, or they paid the most money to him or whatever else. These kind of processes then took place. And this is what we extracted variation and used in the first step, so to say, to extract exogenous variation in political instability. With this political instability, we explain then the license plates. And then in the next step we explain with this portion of the license plates, we try to explain the home bias of the venture capitalist investors.

Tim Phillips [00:19:16]:

There's been previous research about local bias within the US. and how that affects investments. The work that you've done here, is that showing a local bias in Germany that's consistent with these or stronger or weaker? What have you found?

Thilo Huning [00:19:33]:

Yes. So that's also an interesting question. Right. So is Germany more local than other places? The second question is that about investments. So first of all, you would think that Germany is special. It was unified very late. We were in the 19th century, at least a couple of dozen countries, different states with different administrations, own norms, administrative capitals. So you would think that all of this Holy Roman Empire mess made Germany very local. This also imparts the structure of its cities. So Germany doesn't have, like, this giant hub that London is,

that this matters so much for investment. That was a working hypothesis. We think that the investment in Germany is probably more local. We have institutions such as the banking organization, which is called the German Sparkassen, like these local banks that are explicitly linked to different regions. Right. So there's one for every county, more or less. So finance in Germany is in parts, also quite regional. So you would think that this mess, this Holy Roman Empire, the decentralized structure after World War II should help to yeah, we think that Germany is probably quite up in that distribution of it's.

Tim Phillips [00:20:45]:

Great talking to both of you about what you've managed to find out, but also the way you got to it as well. And I'm not sure we've ever had a conversation quite like this on VoxTalks Economics.

Tim Phillips [00:20:56]:

So Fabian. Thank you.

Fabian Wahl [00:20:56]:

You're welcome.

Tim Phillips [00:20:58]:

And Thilo, thank you very much as well.

Thilo Huning [00:20:59]:

Thanks so much.

Tim Phillips [00:21:10]:

If you want to read this singular paper. Its title is; Does Regional Identity Guide Investments: Evidence from German License Plates. And the authors Thilo Huning and Fabian Wahl. It is discussion paper 18074 at CEPR.

[Voiceover] [00:21:30]:

We hope you enjoyed this VoxTalk from the Center for Economic Policy Research. If you did, remember to subscribe. You'll find us wherever you get your podcasts. Next week on VoxTalks. Did extending the right to vote make India more democratic?