Some Thoughts on Markets and such

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During a difficult year for food supplies there was a lot of talk about speculators and starvation. That just happens to be the topic of a blog post by David Zetland, an American political economist who teaches at Leiden University in The Netherlands. He, like me, had long dismissed claims that speculators exacerbated price increases. Unlike me, he had changed his mind, at least in some cases. Of course I wanted to understand why, so I asked David to walk me through that and other some fundamental economic ideas as they relate to food and water, starting with the difference between shortage and scarcity.

David Zetland: So shortage is a fact. It's something that you cannot overcome. So when the lights are out and there's nothing you can do, or if if you go to the market and there's no food there, there's nothing you can do. Yeah, you've lost a choice. And if you take, as a direct counterexample, the lights might go out, but if you put another dollar into your meter, then the lights will stay on. Or if there is food in the market, but you have to pay more per unit of food then you're at least, you can get it.

So what economists deal with all the time is scarcity. We talk about prices balancing supply and demand. But political economists deal with shortage because shortages typically do not happen inside markets. Shortages happen when, for example, there is no market, which is super ... Lots of lots of lots of examples, or there's a market that is that is facing interference, right? So the government says thou shalt not sell water or thou shalt not sell food abroad to those foreigners because we're going to keep it domestically. A market shutting down is traditionally going to be associated with a political intervention.

So when you have markets working, scarcity is the price mechanism going up and going down, right? If there's too much, there's a surplus.

You can also have low, low, low prices. Like, you know, the end of the day at the fresh food market, food gets super, super cheap if you want to buy those strawberries or those bananas, right. Prices go up and down. That keeps supply and demand in balance. When there is political interference with the price mechanism that is, in my opinion, not justified, then you can get a shortage which is harmful. Now you should have political interference in many markets for many circumstances, but the one that leads to shortage is not a good one.

Jeremy: Here's my problem. A lot of people that I come across take this idea that speculators in futures markets drive prices up and that they make huge profits. And I've always responded to that by saying that on average, speculators can't make a huge profit because every futures contract has a buyer and a seller. The two have to balance out, and if one's making a profit, the other is making a loss. Is that is that roughly correct?

David Zealand: Mathematically, it's absolutely correct. And the thing that makes it a bit tricky, because I would say exactly what you just said, and I wrote this blog post that we've talked about that I'll discuss now. So mathematically, it is correct that on either side of the contract, there's a so-called winner and a loser based on where the price was when the contract was made. So if the contract is for, let's say, delivery of wheat in three months, but let's just say it's 100 now and I think the price is going to go up and you think the price is going to go down, right? So then we both make a deal for three months in the future. And if the price does go up, then I make money and you lose money. So that there's a winner and there's a loser. And that's the way that the financial side of the markets are going to work.

Now, what's interesting about commodity markets is that sometimes you have traders that actually do want to deliver that wheat in three months or they do want to take that wheat in three months. Let's just call them physical traders. Then you have the financial traders that don't care. They definitely don't want to take delivery of 30 tons of wheat, you know, in wherever they are in Connecticut.

So they're actually trading only on the price volatility. They're trying to speculate on the price volatility, make a profit on the price volatility. And it's important that they can make money if it goes up or it goes down. Right? So they're making money coming and going as long as they are correct about their prediction.

I always thought, if there are speculators in the market, at some point they cannot overwhelm reality because they end up having to either take delivery or deliver the goods. So there's got to be some kind of anchoring point. Now, what I wrote about in the blog piece is that if you are someone who physically wants to take delivery and you're competing with other guys that physically want to take delivery and the price is going up, and therefore the amount you will have to pay is going up, you might panic. And if you're going to panic, then you're going to buy something a month before the delivery date at a price that might be sufficiently ... Much more higher than it would be at the delivery date. But you're willing to do that because you don't want to take the risk of getting nothing at all.

So what that means is that you buy that to lock in that delivery, physical delivery, because you need it, because people need to eat wheat and you pay a price that is whatever it is. You have to make that happen just to beat out the other physical trader competition. So there's that area in the middle between the future prices, or now, and three months from now, there's an area in the middle where there's a whole bunch of chaos. And in that chaos the spectators can make money.

Speculators can make money if they, for example, create a fear factor, then the price might go up really high and then they can sell those future deliveries to people that are desperate to not lose out on that future delivery option, and therefore make an immoral profit on the back of the people that want to eat the wheat. Now, let me add one more thing and then I'll ... this is very long, but I'll add one more thing. Remember that if one financial speculator decides to not make this money and and help the people have affordable wheat, unfortunately, there's probably another financial speculator who doesn't care. So we have a problem of collective action here.

Jeremy: Okay. So the people in the middle who you might call financial traders, they can drive prices up by creating fear, which is exactly what we saw at the start …

David Zetland: Or down, by the way, they can drive prices down. Fear can go up or down and the speculators don't care. They're making money either way. So this is important. They just care about making money.

Jeremy: Okay. So I think I get the point here that in a normal market, speculators are great. They sort of smooth out highs and lows and they ensure that the food manufacturers can get what they need and the farmers can get what they need. So there's this notion then of speculation is a good thing, but excessive speculation is a bad thing. How do you know when you've moved into the realm of excessive speculation?

David Zetland: Man. If I had that answer, you know, another Nobel Prize would be thrown right at my doorstep. This is like the definition of pornography. You know it when you see it. I am not someone who does research on this area. So I would suppose that somebody who did do research would, for example, look at the amount of volume that's being traded by physical traders versus the volume traded by financial spectators. And so in some ways, I think, you know, when you see it, it's super hard to regulate in advance. I guess the only way ... If you wanted to kind of slow it down, you would, like high speed traders, you would slow them down like you can only trade per half second, not per 1,000th of a millisecond or whatever they do. So you'd have to slow that down. So that takes away that business model. If you're going to try and slow down speculators, you would say: Look, we don't want more than say, I don't know, 20% of the futures owned by financial speculators. You could put a limit on how fast you can turn over a contract. That's actually quite good. So you have to hold it for, let's say, 24 hours before you can trade it again. That kind of slowing down on just what is considered pure financial manipulation probably is the best way to reduce that problem. But you will have people who will say this is definitely speculation that is a bad kind. And on the exact same trade, someone else will argue it's definitely a good idea. So you want that balance of 50:50 to be more obvious, compared to these 90:100. Like this is definitely a bad idea kinds of outcomes.

Jeremy: Yeah. Hmm. I'll put you on the spot a bit. Talking about commodities, But you've mostly studied water and water policy. And the other thing we've been hearing about, apart from food price is droughts and floods, really bad at the moment in many places. And it seems to me that they're kind of beyond any kind of policy control. So what what can governments do to protect food supply, particularly from drought?

David Zetland: We're talking here about two things. One is going to be insurance. And the other one is going to be markets. Right? So if you go back just to a regular farmer with a regular marketplace and they're they're going to experience a drought, but they don't know. Right? There's a statistical probability of a drought. Now, climate change is going to make all of this more complicated, but I'm going to do this before climate change is being included, because droughts have happened forever. And the traditional answer for this in a pre-market world is that farmers would have, for example, not one big plot of of land. And by big I mean half of a hectare, an acre, right. Tiny as far as large scale farmers are concerned. But that farmer, instead of having one hectare plot, would have ten 0.1 hectare plots scattered around different elevations, different water sources, different sunlight exposure, different crops on those plots. So that was the farmer, who was usually a subsistence farmer and sometimes commercial selling into a market. But they just wanted to feed themselves and their family. That farmer would use those different plots as insurance because …

Jeremy: Yeah, that's diversity. I mean, that's diversified holdings.

David Zetland: Yeah, but that is the old school way to do it. It doesn't help, though, if the whole region is in a drought. If the whole region is in a drought, that farmer potentially is screwed.

When insurance shows up as an actual product, you pay us now, and if there's a drought or if there's a low yield, we'll pay you back and that'll make up for your loss of production, food, kilos of food, calories. And you can use that money to go to the marketplace and buy the food because you could buy it from someone else, You buy it from someone else that has a crop that's coming in. So these two things go together. Insurance and markets must go together. If you have insurance and they give you money and there's nowhere to buy food, the money's useless. You can't eat money.

And there's a very tricky aspect of food security, which is where there's less food being produced, but the price per unit of food goes up because the supply is falling. So the farmer might make the same profit off of a lower, a smaller crop. That doesn't help with calories, but that does help the farmers stay in business or make a profit. But that's again trading. If you're a subsistence farmer, you don't care about that. You want to eat. So you have to kind of think who's your

farmer or who's your market. Almost all of us are dealing with commodified food these days, so we should be thinking about markets and insurance.

Jeremy: Let's talk specifically about the impact of drought on food security. You've done this analysis that shows that countries that have the least water are using it for domestic agriculture. And some of those are rich. I mean, Saudi Arabia, Qatar, if they wanted to, they could just import all the food they need. But others are really rather poor. Syria, Algeria, to some extent. What are they supposed to do if there's a water shortage? How should they be allocating that water to agriculture, to whatever industry they have, to the people in the cities? How do they work that out?

David Zetland: The decision of where to draw the line between agriculture and other uses is a very big, as far as I'm concerned, political decision. And traditionally that has been not a problem because there was always too much water. I called my first book The End of Abundance, because I was pointing out that it's now going to be a bigger problem with time, because back in the thirties, forties and fifties, it was it was taken as a fact that water that flowed into the sea, for example, was wasted water. They didn't call them wetlands, they call them swamps. The idea of ecosystems was just not even on anybody's mind. So farmers were encouraged and subsidised, often in terms of large infrastructure projects they didn't have to pay for, subsidising the use of water.

That started to change with the environmentalist movement, with just actual science that just exposed how incredibly important all these ecosystems are to us. And then you start thinking about, wait a second, if this river is 100% allocated to human uses, then that's 0% to that ecosystem or to the delta of the river, etc. So the environment having any kind of right or any kind of value is like coming late to the table. And that is a problematic when it comes down to humans against other humans, farmers against cities. Push comes to shove, the farmers are going to be told to shut off, they're going to lose their water supply, whatever the legal agreements are, because people in cities are going to have priority compared to a crop.

Jeremy: And what food are the people in cities going to buy if the farmers aren't growing it?

David Zetland: Yeah, well, that's where markets are important, right? If farmers in California get cut off from, let's say, 10% of their water, they're using 70%. So they lose 10%. Let's do the math here. Actually, let's use 80%. So 80% to farmers, 20% to cities. Farmers reduce their use by 10%. So from 80 to 70% and cities just got 50% more than what they had before. They go from 20 to 30. So 10% less to the farmers is a ginormous increase for the cities because the cities are using such a small amount. So we're not talking about like, you know, ending farming as we know it. We're just talking about taking some of the water away. Now, there's much better ways to do this with markets and so on, But if you just want to have an emergency, you want to take this water. The numbers are pretty massive in favour of very fast gains for not a lot of losses to the farmers.

Now, what about all that food? Well, remember, California and Arizona are exporting to the United States and around the world. So people in California are not going to starve if farmers are growing — say, I go from 80% to 70% — if they're not growing ... If they're growing 12½% less, Californians are not going to starve. Americans are not even going to starve. They're actually obese. Right. So you have a bigger problem of too much food. Then you can think of, okay, those local farmers are not doing that because of a drought. Let's go get food from somewhere else. There's a marketplace, you know, depending on the scale and the amount of money involved. You know, you look at a country, a place like the Emirates or Saudi Arabia, that imports a huge amount of food, because they have almost no agriculture, but they've got a lot of money. So the more the money compared to the market price of food in the world, the more likely it is you can just buy the food that you want. If you're poor, and then you don't have food, like you're in Ethiopia or Eritrea, then you have a real problem because you have no buying power and no local crops.

Jeremy: And effectively what what those countries are doing is buying water. If Saudi Arabia and Qatar had to subsist on on their own water there'd be far fewer people there.

David Zetland: That's right. Yeah. And that's traditionally why those regions were thinly populated. It was extremely harsh and people were like, I don't want to live here. There's no water, there's no shade. I'll go somewhere else.

Jeremy: So — how can I put this? — ... Is it morally justified to pay whatever you can for food, even though you're removing it from a local market where, markets notwithstanding, where the demand would actually be greater if people had money.

David Zetland: That's a great question. So, yeah, I actually thought about this a lot when I wrote a paper around eight years ago on what's called — it was about water grabs, but it was actually food, land grabs. And land grabs was a term that was super popular in the media at that time. These guys were shells after shells after shells. So they were super sketchy stuff. And what they were doing is they were buying large, large tracts of land that was quite often inhabited by people with traditional rights, therefore not formal legal rights. And the government would just assume that they would ignore that those people were living there and they would sell that land to Megacorporation, and Megacorporation would use it to grow sugar, or they would use it to grow another commodity crop that they would export. And this was happening a lot in East Africa, Sudan.

Jeremy: Yeah, but it's kind of vanished as a topic. I mean, you know, land grabs used to be all over. … Anyway, carry on.

David Zetland: Yeah. And I'm so I'm curious because I think as a topic, it has vanished and I don't think as a problem it's vanished. You know, unfortunately, the activist community kind of goes from one outrage to another. And climate change is occupying a lot of people's minds right now. But the point that I thought was most interesting in this paper was that, like you said, the area that was being used for traditional growing of food, maybe grazing, you know, small scale agriculture was being replaced by industrial scale agriculture. And so the people lost their local supply and they could not, they were not even allowed to buy the exported supply. And by the way, who needs 800 tons of sugar? Right? It was going back to some commodity world market. But what I felt most interesting in that paper was that you don't just go, as a Saudi Arabian or a British/Saudi Arabian corporation to sit down and buy land without a willing seller. The willing seller is the local government.

And the local government, according to an old theory of political economy called the Stationary Bandit... The stationary bandit, in very short, is when you have lots of bandits roaming around, robbing everybody, a stationary bandit says: Hey, people that live in this area, I

will protect you from the other bandits. You just pay me some taxes for protection. I'll take less from you than all the roving bandits will, and you can start to produce things. And this is kind of the foundation of the nation state, this little model about that.

But the stationary bandit wants the population under the stationary bandit's control to prosper, because that's more tax revenue. And that'll happen year after year after year. That's like getting milk from the cow. But when you have an outside investor saying, I will buy land from you today with one big suitcase full of money and gold bars, and then you can just retire, that's selling the cow. So the stationary bandit can retire with a huge payoff today instead of waiting around for 30 years for all this money to trickle in. Just like take the big payoff and adios to Switzerland, etc.

So I think that a lot of these kind of immoral investors going into these places where property rights are weak and people are very poor, which is a lot of parts of Africa, you can go in Asia as well. Those people are are, yeah, they're increasing food insecurity. So they're reducing food security for those local people. They are lowering world commodity prices, so they are helping rich people. And they are, yeah, completely contributing and encouraging corruption, in terms of democracy, in terms of serving a population either corrupt ... Forget democracy, local governance. Like do you have any kind of tribal allegiance to these people? Apparently not.

And if your boss decides to sell you all out and say goodbye, then now what are you going to do? You know, you're homeless, landless, without leadership. And I mean, why wouldn't you join the various radical groups that are quite popular in Africa these days?

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