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'CAPITALISM A NUH' WI FRIEN'

THE FORMATTING OF FARMING INTO AN ASSET, FROM FINANCIAL SPECULATION TO INTERNATIONAL AID

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Abstract

This paper deciphers the formatting of farming into an asset by tracking the modalities by which financial calculation is enabled across different sites of agency. The first focus of our analysis is commodity futures markets, which have witnessed spikes in prices in 2008 and in 2012. In the paper, we look at these hikes as the outcome of endogenous dynamics, caused by the changing makeup of market participants after 2000, which turned futures markets into resources for hedging commodity index-linked derivative products. We subsequently analyse the increasing reliance on financial actors placed by public development agencies that channel funds through private equity initiatives to acquire and invest in farmland. To complete our analysis, we set our contribution alongside the alternative represented by food-sovereignty, which offers the promise of heeding to the needs engendered within the peasant milieu, as opposed to subjugating it to extrinsic quantitative metrics.

I. Introduction

'Capitalism a nuh' wi frien' is a line from the bitter recollection in song by the Rastafari dub poet Mutabaruka (2002), who laments the dismal predicament of Jamaican farmers as a result of the 'structural adjustment' policies imposed through the stick of conditional loans by the International Monetary Fund in the 1980s. Specifically, these reforms opened national agriculture to competition from abroad, and particularly from (heavily subsidised)¹ exports from the United States (Black 2001). As a consequence, many local farmers were pushed off the land for the inability to find a market for their products which, unlike American imports, did not benefit from the same subsidies. Therefore, the 'wi' who are not befriended by capitalism, in Mutabaruka's sorrowful lyrics, refers primarily to the rural population, and especially smallholders, who get to witness the uneven nature of capitalist development from the short end of the stick. While the Jamaican experience does not form the focus of this paper, it is worth opening with because it is paradigmatic of a process of paring down the institutional net keeping 'traditional' socio-economic ecologies alive, and of supplanting these by means of a forcible formatting in accordance with market mechanisms that often leave those previously involved in a richer tapestry of exchanges (beyond the calculative logic of economic efficiency) in an even more vulnerable and precarious position. The goal this paper seeks to achieve, then, is precisely to further the understanding of such a process.

At its heart, we argue, this ongoing 'great transformation' in the agricultural sector entails the imposition of a monologic rationality that ignores network effects and ecological dynamics that give meaning and resilience to different local arrangements: this is something that has originally been described by Polanyi (1944) as 'double movement'.²

Indeed, building on Polanyi's reading, one could even go as far as to argue that the imposition of a calculative economic logic to relating—among people as well as with the material ecology enabling life on the planet—is implied by the very etymology of the word 'capitalism'. 'Capital' literally means 'pertaining to the head', which in turn is often taken to mean 'more prominent' (Harper 2015). This synecdoche, whereby one part is taken to dominate the whole, reflects an orientation to the head as the

seat of personality (Cannan 1921, 469). Today, the appropriateness of a similar act of simplification is at the very least objectionable, particularly in contrast to new directions in social psychology (Malafouris 2013; Noe 2010), whereby it appears highly problematic to isolate the development of personality from the vitality of the body and the encounter with a living materiality. If anything, then, the very rhetorical origin of the word signals an attempt to square life in an overly simplistic and linear format, which is deeply inadequate to express its textured complexity. 'Capital' subsequently finds application in economic lingo as a metaphor: if the head is (poorly) understood as the most important part of the body, financial capital represents the quantitatively most important part of a debt, on the basis of which interest is compounded (Cannan 1921, 470).

In view of this, *the very linguistic roots of the word 'capital' imply a process of calculation*. And calculation necessarily presupposes the abstraction of different units for it to be carried out, such as capital as opposed to interest. The transformation worked upon social and ecological relationships as they are downgraded to 'capital' is equally reflected in the use of the word 'externalities', to refer to qualities that 'do not matter' in an exchange transaction, precisely because they are left out of the process of calculation (Latour and Callon 1997, 6).

The contradictions of capital-ism applied to farming, then, begin to appear in their monstrosity. This is because, on the one hand, farming stands for an ecology of social and material relations, forged in the co-production of human agency and living nature, and held together in an inextricable mangle of feedback loops (van der Ploeg 2009, 23–26). On the other hand, the pretence to subject farming, so understood, to the calculative practices that characterise capital-ism requires instead the artificial isolation of spaces to enable control and channel investment, on the basis of which financial calculus may subsequently be enabled. The extrication of the inextricable for the purpose of calculation is therefore at the root of a number of vigorous tensions permeating the world of farming as it is formatted into an 'asset' capable of attracting investment.

In light of the above, this paper aims to describe some of those contradictions and to facilitate an emergent understanding of some of the forms that the process of subjecting agriculture to financial calculation and quantitative accounting takes today, through the prism of two significant examples: financial speculation and international aid on matters of agricultural production and 'development'. In order to pursue this inquiry, in section II we aim to decipher the passages by which the privatisation of commodity trade has made financial markets the principal channel to procure insurance (through contracts named 'futures') against price fluctuations. Financial markets have subsequently been hijacked by actors looking at commodity futures as mere devices on which to pin an intricate process of hedging liabilities arising (not from food production and exchange, but) from the offering of derivative products. This process, as the accompanying discussion of the unstable endogenous dynamics of financial markets shows, is all the more unsettling in the face of the increasing reliance placed on these by public law bodies to deliver rural development goals. The third section is devoted precisely to an examination of this latter phenomenon and, specifically, to a case study conducted by the second author on the provision of development financing by the European Investment Bank (EIB). The contradictions of this strategy become all the more apparent as one considers the work of scholars such as Visser (2014), whose research casts doubt on the financial viability of investment in land beyond the narratives and symbolisations produced within the in-group of investment brokers.

Following this discussion, we suggest in the concluding section that a possible alternative to the topdown ordering of agriculture according to the extrinsic logic of assets and investment can be found in the paradigm of food sovereignty (Forum for Food Sovereignty 2007; La Via Campesina 1996). Specifically, by re-focusing attention and intervention away from an analysis informed by extrinsic benchmarks and towards participatory practices and localised struggles for resilience, food sovereignty embeds a phenomenological sensitivity for approaching matters of food on terms derived from within the entanglements in which farming is materialised in concrete instances and living communities.

II. Financial speculation on agricultural commodities: a qualitative appraisal

In the summer of 2014, a big piece of news for those interested in food politics was India's veto over a proposed agreement, to be concluded within the framework of the World Trade Organization, on 'trade facilitation measures' (Express News Service 2014). The agreement was meant to regulate a number of sensitive issues, mostly related to customs infrastructure and procedures, which are liable to affect trade between WTO members. As it often happens with international agreements, however, exceptions and exemptions are as important as the rules being agreed to. In Bali, which is where the 'trade facilitation' negotiations were happening, the bone of contention happened to be India's request for a permanent exemption from further trade liberalization of its public stockpiling and distribution system for food staples (Bose 2014).

In fact, the centerpiece of India's food security infrastructure is the Food Corporation of India (FCI). This is a public body, established in 1964, that acts as a cross between a marketing board, a food bank and a subsidy scheme (Damodar 2010). It stockpiles grains and other food staples (which it buys at controlled prices that give farmers some protection against fluctuations). It then uses this reserve to distribute grains at times when market prices become too high, both as a way to bring those prices down (this is what a marketing board does) as well as to ensure access to essential dietary staples (the 'food bank' aspect). In other words, the FCI is like a public insurance mechanism against the fluctuation of food prices. To set this problem in the context of the broader discussion undertaken here, the FCI can then be understood as an instance of distancing agricultural production and consumption from the operation of market mechanisms, when these would risk undermining the livelihoods of farmers or poor consumers. The issue in Bali, then, was whether India should be allowed to keep the FCI indefinitely, or whether it should gradually phase it out, in order to leave free reign to private actors.³

But what exactly does the free reign of private actors on matters of trade in agricultural commodities entail? Are there cases that can vouch for (or warn against) it as a viable substitute to publicly-administered schemes like the FCI?

Privatised insurance markets against price fluctuations; The fiasco of 2007-08

To address those questions, this section explores how financial markets, now the private insurance mechanism *par excellence*, have worked directly against the goal they are purportedly seeking to address. Specifically, rather than dampening price instability, they have enhanced it due to their propensity to trigger self-reinforcing speculation. In order to make this seemingly technical discussion accessible to a broad audience, the section includes an extensive review of the functioning of commodity futures markets for a non-specialized readership, as an aid to comprehension of the broader point: that, when public pricecontrol mechanisms like the FCI are taken out of the picture, farmers (especially smallholders) are at risk of being left at the mercy of price fluctuations. The consequences, for farmers, are particularly challenging, and often sufficient to push many off the land. For instance, they might decide to err on the side of caution and sow more from one year to the next, so as to preserve their overall income even in the case of falling prices (by selling more). The sad irony of this strategy is that, as many farmers simultaneously do the same, they can create a glut that depresses prices even further, producing the very conditions they are trying to shelter themselves against. Desperate to secure sales for their crops, farmers will also accept whatever prices will get them an income (Newman 2009, 550). In other words, they will be more eager to bend to the dictates of more concentrated brokers and processors further along the food supply chain. In the absence of a public insurance system like the FCI, in fact, those who can-typically farmers more integrated in global commodity chains, leaning towards extensive mechanization and scale of agricultural production—are left with the option of purchasing private insurance (Breger Bush 2012, 8). And that private insurance, when it comes to crops, is called a *future*. Futures are agreements for the sale or purchase of commodities (like many food staples, e.g. grains) at a fixed price, for future delivery. These agreements are in turn exchanged as standardized positions on regulated exchanges, the largest of which are located in the US (Kerckhoffs, van Os, and Vander Stichele 2010, 4). Because they are traded

on regulated and centralized exchanges, futures prices are considered reliable indicators of the conditions of the markets for the concerned commodities, even by operators who trade those commodities on spot exchanges (i.e. everyone who buys and sells agricultural produce, such as wholesalers), since futures prices are meant to reflect information more complete than would be available on fragmented spot markets (Peck 1985, 73). In this sense, even if only a few farmers can directly transact in futures, *all* farmers are affected by fluctuations in the prices of these instruments.

The fact that futures are exchanged in standardized form means that one does not directly enter into an agreement with a specific party. Instead, buy and sell orders are matched by a clearinghouse (Peck 1985, 6–7). Indeed, one way to think of the functioning of futures markets is to think of them as like the more familiar stock exchange (Troester and Staritz 2013, 25) where, however, what is exchanged is not stocks, but rather commodities with a pre-determined delivery date.⁴ This means that there are as many different 'prices' as there are available delivery dates to choose from. Like a stock exchange, futures markets can also be subject to endogenous dynamics (i.e. patterns of trading emerging from the combination of motives, institutional arrangements, and the technological and analytical equipment of market participants, rather than from exogenous factors such as the available supply or demand of the goods being traded) that can—under certain conditions—make their functioning a ticking time-bomb.

Indeed, economists like Hyman Minsky (2008, 230–8) have, for instance, long suggested that a lot of what happens in a financial market need not necessarily be explained by appealing to fluctuations in supply and demand, understood as external variables that are simply reflected in price dynamics. Sometimes, instead, markets cause by their own functioning the problems that neoclassically-trained economists subsequently try to pin on fluctuations in demand and supply.

In the case of commodity futures, the beginning of the story lies in the changing structure of commodity futures markets after the approval of the Commodity Futures Modernization Act in the US in the year 2000. A commodity future, as anticipated above, is a contract for the sale or purchase of a standardized commodity (including many food staples) with a future delivery date. The regulated markets for commodity futures basically generate a price for a given maturity date, by matching standardized buy and sell orders. The effect of opening a position on the futures market is not-like on a stock exchangeto acquire ownership of the underlying asset, but simply to freeze the price at the level it stands, for a given future delivery date. This is where the original insurance function stems from, since an open futures position insulates the transaction from the dynamics of the spot (immediate delivery) market because, on maturity, the exchange will be performed at the previously agreed price, not at the spot (current) price. An alternative to holding a futures position till maturity, however, is to determine one's exposure before taking delivery, by opening at a later time the opposite position (for the same delivery date), presumably for a different price than had been previously fixed on the original order. This means that opening and closing positions on the futures market, for a given delivery date, at different moments in time can result in profits or losses. Because standardized futures contracts are not entered into with a specific party, if one submits a 'buy' order it is always possible for that investor to determine his or her exposure, by putting in a 'sell' order for that same delivery date, and vice versa. Of course, if 'buy' and 'sell' orders for a particular delivery date are put in at different moments in time prior to delivery, it might be that one might sell for more than he or she bought (a profit-making strategy called 'going long'), or that they will buy for less than they originally sold (a strategy called 'going short') (Garner 2010, 25).

Prior to the 2000 Act coming into force, participants in this market (especially when it came to agricultural commodities) were either commercial operators who needed to insure themselves against price fluctuations, or arbitrageurs, who merely sought to profit from temporary price variations, while being subject to precise position limits (Kaufman 2010, 30–31). After 2000, however, the Commodity Futures Modernization Act allowed unregulated over-the-counter derivative transactions on commodities (thereby opening a market for financial products indexed to the price of commodity futures, as described below), as well as containing the so-called 'swap-dealer loophole', whereby parties hedging a financial position could trade on the futures market like 'commercial' operators engaging in it for operational needs (such as to insure their produce against price fluctuations), thereby being exempt from the stricter position limits for speculators (Ghosh 2010, 78). Both of these are relevant for what was to follow.

As a consequence, in fact, after 2000 a new type of investment scheme became ubiquitous, which has since become known as 'commodity index speculation'. In its original OTC form, it consists of a swap contract between the swap dealer (typically an investment bank, like Goldman Sachs) and an institutional investor, like a pension fund, with money to invest. The swap would be used to simulate (financially) the (actual) ownership of commodities. This would initially require the institutional investor to pay the dealer a lump sum. In exchange for it, they would be credited at contractually-stipulated dates with the variations in value of their simulated investment in commodities. The way this 'virtual' ownership of commodities would be simulated is by taking as a point of reference the value of a commodity index. This is a figure obtained through a mathematical formula that averages the price of different commodity futures, weighted by the percentage of different commodities that have been included in the index (Masters and White 2008, 9). Let's take for instance a hypothetical index including grain, gas and oil futures in equal percentages. This would translate into a number that would track over time—in equal measure relative to one another-the price of gas, grain and oil. The reason for choosing the futures price specifically stems from the assumption that futures prices are a reliable indicator of the proximate fluctuations in spot prices, so that investing in commodity futures is more or less equivalent to buying the commodities themselves, if all one is looking for is to simulate commodity ownership from a purely financial standpoint (Frenk and Turbeville 2011, 8). To return to the swap contract, the dealer would then-at fixed dates-have to transfer the variation in the value of the index between any two contractually stipulated settlement dates.

However, once the dealer takes the obligation upon him-/herself to deliver a cash flow that reproduces ownership of a basket of commodities, it would then make sense for them to procure insurance against fluctuations in the prices of those commodities. And the way to do so is to join commercial operators (trying to insure themselves against risks related to their business, e.g. as grain traders or producers) on the futures market: this is how the link between an OTC derivative transaction— the swap—and the futures market is first established. What is significant to note, here, is that swap dealers enter the same insurance market as commercial operators, to cover themselves against the fluctuation of commodity prices. This entails, in turn, that their trading strategies will be responsive (not to events pertaining to the actual production and exchange of commodities, but) to the peculiar characteristics of the financial risks they are insuring themselves against, as illustrated below.

This, in fact, is where a crucial issue arises, namely that, while a futures contract by definition has a time-limited duration (because it is subject to a delivery date), the sort of obligation that the swap dealer enters into with the institutional investor can in theory be open-ended. In other words, the swap dealer can synthesize 'ownership' of commodities over an unspecified length of time, and they would 'insure' themselves against the risk entailed by this financial obligation by opening futures positions, which however expire at a certain date in the future (Frenk and Turbeville 2011, 8). So the tool (commodity future) used to insure the swap dealers' financial risks is not built to cover the entire span of the risks—from indefinite exposure to commodity price fluctuations—that they are trying to shield themselves against.

This creates a discrepancy between:

1. The length of the obligation of the swap dealer towards the institutional investor through the swap contract on the one hand, and

2. The length of a standardised futures contract on the other, through which the swap dealer may try to insure their financial risk.

This discrepancy poses the need for periodical rollover of any futures positions that have been opened by the dealer to hedge the swap. In other words, it's as though the swap dealers had to keep renewing their insurance coverage, upon its expiry date. The way they do so is through a particular trade called a rollover, which involves closing one's exposure on futures nearing maturity, and opening an interest in the next-expiring batch.

A rollover requires first of all to open the opposite position (say 'sell') on a given maturity date, to the one that an operator already holds. In this way, the original undertaking (for example, 'buy') cancels out with the new one. This is followed by opening a new position (e.g. 'buy') for a later delivery date. So, if I enter into a commitment to buy grain for delivery on the 2nd of February, I can later enter into another

one to sell grain for delivery on the 2nd of February, so that my two positions cancel out and I don't actually have to take physical delivery. Subsequent to that, I may then wish to 'roll over' my exposure to the futures market by submitting another commitment to buy grain for delivery on March 2nd.

This, in fact, is what a swap dealer would be doing, since they would typically hold a number of positions containing the undertaking to buy for delivery at a fixed date into the future (say February 2nd). As that date approaches, the swap dealer would undertake to sell the same amount for delivery on February 2nd, so that its obligations would cancel out. When this happens, however, what a third-party observer would see would be a sudden surge in 'sell' orders for the given commodity as the delivery date of February 2nd approaches. For these 'sell' orders to clear with matching 'buy' orders, it is likely that the price they will attract will be lower than it would otherwise have been outside of the rollover period (Troester and Staritz 2013, 25).

Symmetrically, as the swap dealer rolls its position over into a later-expiring future, it would issue a 'buy order' with a later expiry date (say March 2nd). For this surge in 'buy' orders to clear with matching 'sell' orders, the commodity will draw a higher price than it otherwise would outside the rollover period, when sudden surges in 'buy' orders would not normally occur.

The fact that these rollovers happen at regular intervals, for contractual reasons (insuring the risks stemming from a commodity index swap) and not to reflect fundamentals in the underlying commodity market muddles the informational value of futures prices. Furthermore, the periodical price-depression of near-expiring futures (as swap dealers close expiring future positions) and price-inflation of later-expiring futures (as swap dealers open new positions on the buy side) tilts the structure of futures prices towards contango (see also Frenk and Turbeville 2011, 15–17; Russi 2013, 50):

The declared purpose of forward trading and of futures markets is to allow for hedging against price fluctuations, whereby the selling of futures contracts would exceed the demand for them. This implies that futures prices would be lower than spot prices, or what is known as *backwardation*. However, throughout much of the period from January 2007 to June 2008, the markets were actually in *contango*, in which futures prices were higher than spot prices. This cannot reflect the hedging function and must imply the involvement of speculators who are expecting to profit from rising prices. (Ghosh 2010, 78–9).

Many commentators of neoclassical formation have denied that this sort of price structure—even if induced by the activity of commodity index speculation—could ever have any repercussions on spot prices, which they suggest only reflect *present* (not anticipated) scarcity of a commodity, based on standard demand and supply interaction (Irwin, Sanders, and Merrin 2009, 379–80). On this reading, the rise of grain prices becomes something to ascribe exclusively to increased meat consumption, draughts, and competition between edible crops and biofuels, all of which directly affect supply of the relevant commodities (Clapp 2012, 130; Ghosh 2010, 72–73).

However, as buyers and sellers on spot markets take into account the signals coming from the futures market, those sellers with access to storage facilities might decide to hoard, whereas interested buyers, anticipating a rise in prices, might try to stockpile today to shelter themselves from rising prices in the future (Frenk and Turbeville 2011, 9). Hence, a price structure induced by the periodical rollover of futures contracts seems capable to affect spot prices as well, even though any ownership on the part of the swap dealers themselves would never be more than 'virtual' as they close off their positions and never take delivery. As a consequence of contango in the futures market, instead, 'real' scarcity could and did in fact ensue on spot markets in the 2007-08 period (during which time futures markets were precisely in contango), sparking protests and 'hunger revolutions' around the world (Holt-Gimenez and Patel 2009, 6 see also Figure 1 below): this—as mentioned at the beginning of this section—is because, while the main futures markets are centralized in the United States, they are used worldwide as a reference for spot trading as well.

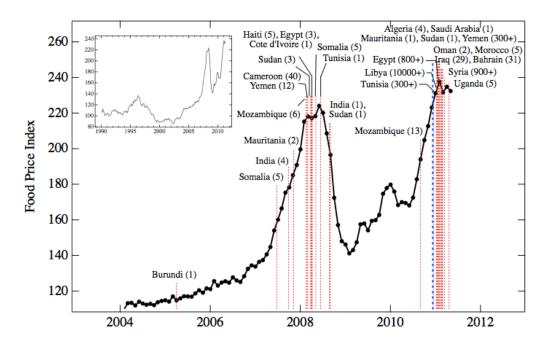


Figure 1 Time dependence of FAO Food Price Index from January 2004 to May 2011. Red dashed vertical lines correspond to beginning dates of food riots. Source: Lagi et al. (2011, 3)

Add to this that commodity-indexed financial products became particularly attractive as investment opportunities, particularly after the dotcom and subprime bubbles. As Minsky (1982) has observed more generally, the rush to a particular asset in a bull market reinforces in and of itself the upward price spiral in a way that is not dissimilar to what happened in the futures market for agricultural commodities. Where, as more money was poured into commodity index investment, an increasing proportion of futures trading symmetrically started to take place to hedge the liabilities of dealers of commodity-linked products (rather than to provide insurance against price fluctuations for operational purposes). An estimate by Masters and White (2008), which they obtain by integrating the Supplemental Commodity Index Traders (CIT) reports filed with the Commodity Futures Trading Commission (CFTC) along with data about the composition of commodity indices disseminated by swap dealers like Goldman Sachs and UBS and closing futures prices as reported by Bloomberg (Masters and White 2008, 49-51) suggests that, in 2008 for example, an average of 41% of futures trading was being undertaken in connection with index speculation (Masters and White 2008, 34).⁶ The increase in the percentage of futures trades being undertaken in connection with speculation would eventually cause a self-reinforcing loop whereby, as more and more commodity investors engage in 'automatic' rollovers, the contango-inducing dynamics that these rollovers perpetuate would become stronger. This drives up futures prices even further, increasing the appeal of commodities as an investment, and eventually leading to an increasing amount of trading that takes place to hedge commodity index-linked products, thereby giving rise to a selfreinforcing loop of investment driving futures prices higher through contango-inducing rollovers, and higher futures prices begetting more investment. In addition to this, contango-inducing dynamics were further exacerbated by other speculators, such as money managers, who positioned themselves so as to profit from the rollover. If, in fact, market participants who are not involved in hedging commodityindexed products anticipate that the near-expiring future will trade for less in response to a predicted surge in 'sell' orders from swap dealers during the rollover period, they may adopt a strategy of 'going long', by selling before the rollover period and buying (for less) during that subsequent phase (Frenk and Turbeville 2011, 23). However, as several operators simultaneously trade in anticipation of the rollover, this can create another 'mini-surge' of sell orders that lengthens the span and breadth of contangoinducing trading.⁷

An interim conclusion

What the above illustrates, then, is how financial markets are prone to self-referential dynamics that can become an independent contributor to the fragility of the economic system as a whole (in this case, the resilience and durability of farming production). Beyond asking for more financial regulation, this observation is of use in the economy of this paper to revitalize a critical stance towards 'development' policy. Indeed, the provision of insurance to farmers through (privatized) futures markets has them trading alongside speculators who equally engage on those markets for an 'insurance' purpose, even though it is to insure themselves—not against the risk of not being able to sell crops for a decent price (as is the case for farmers), but—against the liabilities entailed by their financial offering to their customers. This ushers the question of *why farmers have nothing but the financial casino to turn to, in order to hedge the risk of fluctuating prices for their produce*.

Our suggestion is that this is because of a mixture of neoliberal-inspired development policies and an international regulatory framework that limits state intervention (as undertaken through schemes like the FCI), for example under the programmatic objective of 'trade liberalization' pursued by the WTO (Robbins 2003, 32–37 & 136–37). As a consequence of these measures, in fact, a number of public law consortia and marketing boards like the FCI have been abolished, even though they used to help stabilize prices by carefully monitoring production and stockpiling reserves.

Despite two consecutive surges in the price of food staples, in 2008 and then again in 2012 (Chandrasekhar and Ghosh 2012), due to the qualitative dynamics just described, the idea that treating farming as a source of assets to be mobilized and traded on financial markets still has an enduring hold. For instance, Irwin et al. (2009) approach the commodities futures market by means of apodictic theoretical definitions, as a site for purchasing insurance against price fluctuations, even against the qualitative evidence presented earlier that suggests how the makeup of participants has drastically changed in favor of commodity speculators and money managers, so as to have significantly distanced futures trading from that original purpose. Following their line of reasoning, it is still possible to cherish comfortable neoclassical assumptions about the theoretical usefulness of financial markets for farmers.⁸

III. The pursuit of 'development' through finance

Despite the poor track record of mixing questions of farming and rural development with the quantitative logic of financial calculus (Romero and Van de Poel 2014), the dominant (however unwarranted) attitude increasingly appears to be that the former are better served through the channels of finance and the private sector. International finance institutions such as the World Bank, the Food and Agriculture Organization (FAO) and the EU Directorate-General for External Policies are among the strongest proponents of this approach (Griffiths et al. 2014; Konig, da Silva, and Mhlanga 2013; World Bank and IMF 2002). Alongside the discussion conducted in the previous section, the extent of the contradictions that this policy stance generates is also evident in the worrisome experiments of public-private partnerships (PPP) for rural investment.

Readers may be aware that public-private projects are not a novelty in the development framework. Often in the past has public money been used to leverage private capital and build large-scale infrastructure (so called 'mega-development projects') that the public donor identified as needed or required. However, the post-2008 bailout of the financial sector and the consequent expansion of public indebtedness have produced a shift in the way in which private and public funds are combined, including in the development sector. The current way of undertaking PPP, 'whereby some of the services that fall under the responsibilities of the public sector are provided by the private sector' (PPPIRC 2014) represents a new and controversial strategy overtly aimed at lifting rural livelihoods by means of financial leverage, short-term private accumulation, and a hope in long-term trickle-down effects generated by privately-led economic growth.

Rural transformation through private equity investment

An interesting case in point is the role of the European Investment Bank (EIB), a financial institution established in 1958 under the Treaty of Rome as one of the components of the then European Economic Community's infrastructure, with the mandate to undertake investments to support the policy goals pursued by the latter's members. Originally committed to finance projects implemented within Europe, since the first Yaoundé Convention of 1963 the Bank's mission has been extended so as to encompass the financing of operations outside the EEC (now EU), whenever these would align with its goals.⁹ A simpler way to think about it is as a vehicle for long-term public investments coherent with the EU's internal and external policy. However, the public purpose behind the very birth of this institution is heavily tested when it comes to the most recent strategies and investment in agribusiness and agroforestry, and especially as far as the reliance on financial actors is concerned. For instance, one way investment in these sectors is currently being carried out is by allocating public money (not to specific projects, but) to agricultural investment funds, among which 'equity and private equity funds represent the largest share, both in terms of capital base and number of funds' (Miller et al. 2010, xvi). Private equity funds are corporate structures that buy a stake in commercial ventures, from which they feel they will be able to obtain an operational profit or a capital gain. In the field of agriculture, these funds' managers have shown a growing interest in the sector, and they have been exponentially criticized because of the adverse impacts that their interventions can generate, mainly on issues of food security, environmental protection, access to land by local communities, protection of biodiversity, and lack of accountability. Moreover, there are mounting concerns about the their focus on producing for the international market, the creation of formalized food chains that drive small-scale farmers out of business and the way in which workers are treated. As far as the re-organization of food production and distribution is concerned, funds that receive public money typically invest both upstream and downstream in the food chain, with a clear preference for existing large-scale agricultural ventures (or for scaling up smaller operations by means of contract farming), financing the production and distribution of hybrid, genetically modified, improved and patented seed varieties (which in turn make farmers chronically dependent on the companies producing these), the provision of machinery, the enlargement of monocultural and industrialized plantations, as well as post-harvest marketing operations, distribution and integration in the global (export) market (Miller et al. 2010; Romero and Van de Poel 2014). In other words, most of these projects funnel money into plantation-style rural ventures that impose chronic dependence on external technological inputs or 'global' export markets, contributing to a 'chang[e] [in] the distribution of power and influence over the governance of the whole food system' (Clapp 2014).¹⁰ Moreover, a recent review of the EIB's project loans and equity portfolio conducted by the second author has revealed that agriculture and forestry investments that the EIB supports in the Africa-Caribbean-Pacific Region (ACP) are often tantamount to diverting productivity from food crops to biofuels or transforming communal forests into sources of carbon credits, two other emerging areas of interest.¹¹ If this seems anything but peasant-friendly, it should be no surprise. Equity and private equity funds, after all, are known to have as their purpose to reap a profit from whatever investment opportunities they perceive (Romero and Van de Poel 2014). The fact that a public-purpose institution decides to delegate them its decision-making powers as to where to channel public funds, however, is less comforting.

Land grabbing: When public funds encounter financial capital

Possibly riskier than direct investment in private equity funds, however, is the creation of hybrid public-private institutions like the Global Energy Efficiency Renewable Energy Fund (GEEREF), which was recently established within the EU framework through an endowment of \notin 112 million from the European Commission's Directorate for Development and Cooperation (DEVCO), the German Ministry of Environment and the Norwegian Ministry of Development.

Advised by the EIB, GEEREF is presented as an innovative fund-of-funds aimed at 'catalyzing private sector capital into clean energy projects in developing countries and economies in transition'

(GEEREF 2014). Officially created to balance the public objective of climate mitigation with the private interest in high returns, the fund is structured in such a way that public funds offset transaction costs, providing a subsidy towards private returns. To use the words of the European Commission, the fund is shaped to leverage private investments by providing 'patient capital', i.e. it 'would accept lower returns thereby lifting returns for the private sector, accept longer investment or repay periods thereby addressing the issue of large upfront investments, and accept higher transaction costs thereby facilitating private investment in small- and medium-sized investment projects' (European Commission 2006). Additionally, there are two further characteristics of the GEEREF that require critical engagement.

First of all, although the fund was originally financed with public money only, it 'is currently seeking a similar amount of private capital from private sector investors, to bring the total funds under management above \in 200 million. The first private capital commitments were signed in the end of 2013 and fund-raising efforts are ongoing' (GEEREF 2014). By doing so, the fund itself will soon become a public-private partnership, and not only a source of public money to invest in private activities. The decision to open a development fund to private capital can produce an expansion of its operations, but may also produce the privatization of the fund, i.e. an increased interest in return on investment rather than in its development effectiveness, and the need to compete with other funds on market terms in order not to lose private capital.

The second characteristic of GEEREF is that it works as a 'funds of funds', in the sense that it channels its own financial resources into still other funds. In much the same way as pension funds and large institutional funds do, GEEREF's funds are allocated to other investment vehicles rather than to specific projects. More precisely, it looks for 'private equity funds which focus on renewable energy and energy efficiency projects in emerging markets' (GEEREF 2014). Rather than having direct control over the final project receiving the investment, GEEREF management enters into an investment agreement with the target fund, whereby guidelines and obligations are identified. Once the agreement is concluded and the investment undertaken, GEEREF becomes a client, with rights and obligations that derive from its share in the fund rather than hinging on its specific role as a development investment fund.

The acceptance of private capital and the fact that GEEREF invests its resources in funds rather than in specific projects are justified on the basis of the higher leverage that this strategy produces. However, its semi-privatization alongside the multiplication in the number of private intermediaries that invest in the same target funds and are mainly interested in the investment's rate of return, can lead to problematic consequences. Beginning from the widening gap between the developmental purpose of public resources (in this case provided by DEVCO alongside Germany and Norway) and the search for profit when target funds decide what projects to finance. The risk is that the contractual obligation to reward private investors will push the development aspect of the fund to the background of the financial objective. A project with a deeper developmental impact would thus be chosen only if it is equally or less risky *and* equally or more revenue-generating than a project with a lower development impact.

In addition, while the EIB as a public institution has a degree of accountability, GEEREF—as a quasi-private fund-of-funds—immediately becomes less transparent and distant from the 'real life' of development projects. For example, one of the target funds uses the generic term 'biomass' to describe possible areas of investment, and when the second author of this paper interviewed one of its managers, he was told that the fund may invest in projects that are already operating and where residual agricultural products could be burned or fermented to generate energy. However, the same person added that the fund may decide to establish its own plantation for harvesting fuel-crops, and that it could equally invest in projects that are undertaken on leased land. Neither option would be outside of the investing agreement concluded with GEEREF, and although the latter's opinion would still be sought, it would have a merely consultative weight without invalidating or vetoing the investment so pursued. What this example demonstrates, in sum, is that the legal construction of the fund is such to allow a wide variety of investments and developmental impact, spanning from supporting situations where food-waste is transformed into energy to cases where land is leased or purchased,¹² subtracting it from food production, and cultivating energy crops. The investment guidelines and the decision to incorporate the EIB environmental guidelines certainly represent soft-law tools that may

orient the target fund in its investments, but can hardly offset the confidential nature of several investments,¹³ nor offer an immediate platform for complaint and redress to affected local communities.

All these features aptly embody the contradiction of having to harmonize pro-development public policies with the need to earn a return for private investors. As public money trickles down to other funds, especially through a vehicle like GEEREF, the final destination of the initial investment is further removed from its developmental goal, along with any possibility for open scrutiny or public accountability.

Agricultural investment as zero-sum game

The extent of the paradoxes inherent in the financialization of agricultural development emerges in full when one considers that not only is investment in land-based projects, undertaken with public money, often at odds with the development of a resilient tapestry of small and diverse producers (and, therefore, runs counter the needs of small farmers and their communities); it is also a poor decision from a financial standpoint. In this sense, Visser (2014) offers a valid contribution to support this point. His research takes a critical look at the hiatus between the hype of financial actors about large-scale investment in farmland and concrete practices on the ground. His findings are extremely interesting as they uncover how many brokerage firms overstate the possibility to reap sensible returns from an investment in farmland. Except for a few countries like Romania, in fact, it is debatable that demand for farmland is actually undergoing a runaway increase all over the world (Visser 2014, 6), so it hardly makes financial sense to invest in something for which there might not be as much demand as expected. When investors realize this, however, it is often too late, and they may choose to try and 'turn around' the productivity of the plots they invested into. The large-scale, heavily technified farms they end up building, however, are often so dependent on external inputs and on unstable markets for their final outputs that, for every 'success story' touted by investment brokers, there are often many more bankruptcies (Visser 2014, 15–16). To think that some people's pension money may be funneled into 'investments' that near the logic of the Ponzi scheme (particularly as regards the over-optimistic expectation of profits) is inevitably saddening but, at the same time, revealing of the fact that those profiting from the formatting of agriculture and food into investment assets are rarely those either on the originating (the pensioners with savings invested in such ventures) or on the receiving end (the farmers displaced from 'grabbed' land) of the investment. The real gain from formatting rural livelihoods into investable assets arises from the formatting itself which, like a zero-sum game, is merely a facilitation of asymmetrical transfers of wealth, from which those involved in the rewiring of agriculture into an investment product are ultimately set to profit, at the expense of farmer livelihoods and of the small savers who may take part in risky endeavors of which they may or may not have full awareness.

IV. Food sovereignty against asset-making

To summarize, in this paper we have tried to sketch a picture of the effort aimed at rearranging farming according to the calculative logic of capital, by translating the rich complexity of this world (take, for instance, the intricate web of social and ecological relationships feeding into the production of agricultural commodities) into 'assets' (such as a financial instrument benchmarked to a commodity index) on which an investment calculus can subsequently be pegged. Specifically, in section II, we have endeavored to illustrate how one way this process has been effected is through the curtailment (through a mix of development policies and market-friendly international agreements) of public price-control schemes that acted as a form of collective insurance. Because of their abolition, farmers have been left at the mercy of price fluctuations or, otherwise, they have had to resort to futures markets as a form of private insurance. However, as a consequence of the liberalization of futures markets, which opened their doors to speculators, their insurance function has been thwarted or, rather, directed to the aims of financial houses offering products connected to commodity index speculation. The end result has been the

production of boom and bust dynamics that have not only caused these futures markets (originally meant as an insurance against price fluctuations) to engender those very fluctuations but, at a more grounded level, the disruption of rural livelihoods by ruining small producers (thereby adding to the mass of the landless rural poor), as well as the deprivation of consistent sections of the world's population of affordable access to staple food.

In the third section, we have subsequently expanded to consider the increasing reliance on financial markets (however unpredictable they have proven time and again to be) for the purpose of channeling development aid. If the original idea is to create chains of investment vehicles blending public and private capital, so as to increase the leverage connected to each public euro directed towards development policies, the practical execution results in a hand-out to money managers, expanding the grip of financial calculus on farming, while using 'development' as mere window-dressing. What is worse is that, even as a form of investment, the acquisition and exploitation of farmland through similar forms of private equity and venture capital rarely matches the hype and the expectations pinned on it. The rush to farmland appears to be less warranted 'on the ground' than it is on the glossy brochures of brokers. In this sense, therefore, the profit from the formatting of farming as an asset is not so much to be reaped from the investment (which would require the latter to be profitable in the first place), but at the even earlier stage of re-arranging the food chain in such a way as to enable control and extraction of value in what is substantially a zero-sum game. The stealth form of accumulation by dispossession¹⁴ that this process leads into adds credibility to scholars like Van der Ploeg, who speak of an 'imperial food regime' in the sense of an increasing arrangement of 'the social and the natural world through the assembling of resources, processes, territories, people and images into specific constellations that channel wealth towards the centre' (van der Ploeg 2009, 236).

The focus in the previous two sections on the *creation* of conditions of dispossession, uneven development and marginalization that is entailed in the formatting of farming as a profitable form of investment has the merit of moving away from abstract speculation on the seemingly invariant structures of capitalism and to suggest instead an appreciation of its historical unfolding. In this sense, our contribution should be read alongside the work of scholars such as Cox and Gunvald Nilsen (2014), who historicize the development of capitalism through the dialectic of social movements from above and social movements from below, each vying to 'make history' by entrenching particular forms of relationships and dependencies that direct and constrain possibilities for future development, so as to support the social reproduction of those groups whose livelihoods are invested precisely in those relationships and dependencies. However, even when the conditions in which we come to operate are not of our own choosing, for instance by virtue of their imposition from above, recovery of the temporally-unfolding dimension of capitalist relations sheds light on the possibility of alternative orientations and possibilities for life. Life in a historically-determined medium, in sum, is not mere subjection to the conditions forced in a top-down fashion, but also possibility for struggle and emancipation, towards the expression of needs generated within a subaltern group (Cox and Gunvald Nilsen 2014, vii & 100).

To contextualize this insight in relation to the world of agriculture, then, it is necessary to scavenge for alternative paradigms, through which to unearth hitherto overshadowed possibilities for intervention that can address several of the shortcomings discussed so far. One possibility we wish to discuss is encapsulated by the notion of food sovereignty (Forum for Food Sovereignty 2007). Moving beyond a purely quantitative idea of ensuring access to enough food (food security) (McMichael 2014a, 934 & 937), food sovereignty stresses the production of social economies of food that reflect the needs of those that live in close contact to the land. In this sense, food sovereignty is really the shorthand for a process view of rural development, one centred on participation and autonomy, as opposed to a normative and abstract pre-setting of *desiderata* to be achieved. One of the more lucid illustrations of the difference that a food sovereignty-informed perspective brings to the world of farming is the one offered by Van der

Ploeg. In *The New Peasantries* (van der Ploeg 2009, 23–26), he suggests how the view of farming from within the everyday practices of smallholders around the world is one informed by the co-production between human agency and living nature. More than that, despite the misleading image of backwardness that even classical Marxism has to some extent projected onto peasants,^{15,16} the peasant condition is actually an intense field of multi-directional negotiations: with the vagaries of the environment, and its enduring reproduction; with the vernacular innovations and know-how through which to improve one's material condition and add to the resilience of the life of the farm; and finally with the state apparatuses and market forces that constrain possibilities for development and spark the search for transversal solidarities and new alliances.

By heeding to the strivings and developmental possibilities originating from within the practice of (smallholder) agriculture, the paradigm of food sovereignty embodies a radical alternative to the attempt to streamline farming according to the monologic order of connectedness embodied in the calculative logic of capital-ism. Instead, it offers a more phenomenologically-informed alternative, insofar as it unearths possibilities for appreciating the needs of rural development from *within*,¹⁶ rather than by the use of external proxies mediated by financial markets or by government agencies (with the distinction between the two—as shown in this paper—becoming increasingly blurred).

The paradigm of 'food sovereignty', as a shorthand for 'a peasant perspective' (McMichael 2014a, 935) for 're-envisioning the conditions necessary to develop resilient and democratic forms of social reproduction, anchored in sustainable management of food systems by land users' (McMichael 2014a, 937).¹⁷ has however been recently criticized by Bernstein (2014). Bernstein's critique follows a line of argument that is not dissimilar to that which can be used to corner other pre-figurative political experiments: that they lack a macro-programme for displacing what it is that they criticize (Barrington-Bush 2014)—in this case, asymmetric agrarian relations under capitalism (van der Ploeg 2014, 1019). By the same token, however, the Occupy movement might appear no more than a meager encampment in a New York square. The novelty of the food sovereignty approach, we suggest, lies instead in it being an 'organizing idea'.¹⁸ as an orientation through which it becomes possible to make out the outlines of an emerging form of life as it shines through incipient shoots and situated experiments (McMichael 2014a, 952; van der Ploeg 2014, 1000). In this sense, it is a vision that foregrounds particular possibilities for further action: from a focus on agroecology (Martínez-Torres and Rosset 2014, 991-92) to the pursuit of autonomy through the distancing from asymmetrical market relations (van der Ploeg 2009, 114), to the revival of neglected areas of concern within Fordist agriculture, such as land productivity and endogenous peasant innovation (van der Ploeg 2014, 1002–3). When viewed as a paradigm that informs a practicalmoral stance towards situated struggles, 'food sovereignty' can be a productive concept that can unlock, not a grand-plan as hoped by Bernstein, but a piecemeal directionality through which to navigate particular instances of injustice, in the bid to carve out alternative trajectories of development (McMichael 2014b, 8; McMichael 2014a, 938).

What this feeds into, in the end, is a collective effort at increasing participation in the definition of economic processes so as to produce arrangements more responsive to the needs of subaltern rural populations, through an array of different strategies, from everyday disobedience (Scott 2012, 11–13) to the shortening of the food supply chain via direct producer-consumer connections (Brunori, Rossi, and Malandrin 2011) or the development of co-operative forms of enterprise (Agarwal 2014). Similarly, food sovereignty in practice can also mean the imagination of new forms of communal ownership of assets (Lewis and Conaty 2012) and more generally the development of legal and institutional arrangements²⁰ that do not work to pry open the lifeworld of rural peasantries in order to rewire it according to a market logic—as in the examples discussed earlier in the paper— but, rather, that respect and align with the many-layered sensitivity (towards ecological and social complexity) that informs peasant production.

Notes

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¹ The asymmetry between the 'liberalization' imposed on so-called developing countries and the subsidy schemes still in place in the West is, of course, one example of the double-standards at the heart of development policy more generally (Mattei and Nader 2008). With respect to subsidy schemes, the problem endures to this day under the aegis of the WTO's Agreement on Agriculture (Clapp 2012, 73).

² Shotter (2011) offers a more general formulation of the problem of imposing an external framework to explain and control particular forms of life, as opposed to accessing their internal complexity.

³ Whether the commitment of the Indian NDA-led government towards farmers is sincere or not is, however, still an open question (see Sharma 2014).

⁴ With the crucial difference that no ownership is exchanged at the time of opening a futures position, unlike it happens for transactions on a stock exchange. Hence, one need not own any commodities at the time of opening a position in order to promise to sell them at a future date—the settlement of the claim being suspended until delivery comes due.

⁵ A numerical example can help clarify the point made in the text. One could commit to future purchase of grain at, say, \$100, and then make a profit by exploiting subsequent price fluctuations that allowed to undertake a future sale at, say, \$105. Such a strategy of buying low first and selling high later, which profits from rising prices, is called *going long*. Alternatively, one might equally attempt to sell before buying. This is possible because futures contracts simply entail an obligation to buy and sell at a future date, and do not require ownership of the physical asset at the time on entering the contract (so long as one does not hold them until delivery comes due, when the physical commodity comes into play). Hence, an arbitrageur can first take on the obligation to sell grain for a future delivery date, and subsequently—when the price of the relevant commodity future might have decreased—open a position on the buy-side. In the end, the two obligations cancel out and all the arbitrageur is left with is the profit from selling high and buying low—a strategy called *going short*.

⁶ Troester and Staritz (2013, 24–25) discuss some of the challenges inherent in extrapolating the weight of index speculators from the different kinds of reports issued by the CFTC. The reports used by Masters and White, the CIT, might sometimes leave out some index speculators, because 'the first classification of a trader is continued in the statistics. Hence, if a commodity trading house first hedges physical wheat transactions but later also engages in speculation without hedging interest, the second trade is still accounted as a commercial trade' (Troester and Staritz 2013, 25).

⁷ It is perhaps less fruitful to try and pin causation of the surge in food prices on this or that group on the basis of econometric regressions, so as to determine whether it's the fault of index speculators or of money managers, as it has been attempted to a certain extent in some literature, such as UNCTAD (2011). We deem it more appropriate instead to look at the combination of their respective trajectories of

intervention that, as in the instance just described, can compound each other giving rise to unexpected and self-reinforcing price dynamics (Bradford De Long et al. 1990). Unlike arbitrageurs, money managers trade purely based on price fluctuations, without regard to fundamentals (Staritz 2012, 12–13). As a result, any incipient price trend—whatever the origin—becomes an opportunity to profit from market movements: the 'roll window' described here being just one example. Some money managers have even resorted to market manipulation to simulate trends around which to enter and exit the market over an extremely short span of time and profit from the fluctuations so generated (US Attorney's Office Northern District of Illinois 2014).

⁸ In a more recent paper by Irwin with different co-authors, despite finding some econometric evidence that rollover activity has a contango-inducing bias (Aulerich, Irwin, and Garcia 2013, 32), they do not directly engage with the qualitative argument offered here (and which that paper aims to challenge!), whereby a contango bias is built into the market by the discrepancy between the hedging needs connected to commodity index-linked products and the time-limited horizon of futures as a hedging strategy. Instead, they merely look for an alternative explanation drawn from neoclassical literature in financial economics to which to ascribe the matching econometric effect. They are then able to conclude that this alternative conjecture is sufficient to demonstrate that the practice of commodity index trading as such does not have a measurable impact on price dynamics on commodity markets (Aulerich, Irwin, and Garcia 2013, 37). Where their argument comes up short, we suggest, is in their attempt to explain away any findings that are consistent with the qualitative process presented here, by taking what is ultimately a choice of theoretical paradigm as evidence that commodity index trading must be neutral towards price dynamics on the futures market.

⁹ A sense of the geographical reach of the EIB's operations can be obtained from European Investment Bank (2012).

¹⁰ Clapp utilises the ideas of 'distance' and 'distancing' as formulated by Friedmann (1994) to describe the two impacts that finance has in the construction of the global food chain. In particular, she claims that 'it increases the number of actors involved in global agrifood commodity chains and, second, it abstracts food from its physical form into highly complex agricultural commodity derivatives that are difficult to understand for all but seasoned financial traders' (Clapp 2014, 2). On this point, see also Friedmann (1994), Kneen (2002) and Princen (2002).

¹¹ The review was commissioned by Action Aid International and was conducted in April 2014. See also EIB (2013). The link between EIB investment and the carbon credit market was previously exposed by various NGOs in connection with the Lurio Forestry case in Mozambique and New Forests Company in Uganda (Grainger and Geary 2011).

¹² The acquisition or lease of land for non-food related projects are often listed as practices of 'land grabbing', even under the Tirana Declaration's (International Land Coalition 2011) conservative definition of the phenomenon.

¹³ The lack of transparency was flagged as early as 2009 in a report, otherwise extremely supportive of the fund (Behrens 2009).

¹⁴ On the concept of accumulation by dispossession see, e.g., Harvey (2004). Ferrando (2013) further specifies it in relation to land grabbing.

¹⁵ For a discussion of the peasant condition in various strands of Marxist thought, see Bernstein (2001).

¹⁶ Peasant agriculture is not defined by the physical or economic extension of a particular farming operation; instead, it has to do with the techniques involved. Small-holder 'peasant' agriculture embodies for instance a co-productive approach to farming, as the outcome of a fine-tuned, responsive negotiation between human agency and biological conditions. This is in opposition to an engineering view, tending to the reproduction of factory-like standards of control through the aggressive use of technological implements to change a field's ecology to prime it for agricultural production. In this sense, Ploeg's (2009, 125 ff.) discussion of 'farming fast' and 'farming gently' is illustrative of precisely this distinction.

¹⁷ For a more in-depth discussion of the emancipatory possibilities that phenomenology can offer to social science, see the general remarks offered by Ingold (2012).

¹⁸ In this sense, 'food sovereignty' stresses the need for autonomy and self-determination. A need that is better served by peer relationships of support and mutual adjustment, as opposed to contractually locked strategic games. This difference is well exemplified by public-public and public-community partnerships (Transnational Institute 2014), in antithesis to the public-private partnerships criticized above.

¹⁹ On the concept, see Bortoft (1998).

²⁰ This can be one articulation of what Mattei and Nader (2008, 202–11) characterize as the 'people's rule of law', in opposition to an 'imperial rule of law'.

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