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‘Hot Chocolate’: Financialized Global Value Chains and Cocoa Production in Ecuador

Abstract: This paper explores the dialectical entanglements of the highly liquid and volatile trading of cocoa in its financial derivative form and the small scale, labour intensive peasant production in its physical form. To do so this paper deploys financialization as a concept which is analytically subordinate to changes in global value relations which, we argue, shine a light on the internal relations between the global financial trading and local production of cocoa. Based upon detailed empirical research in the Ecuadorian cocoa sector, the paper demonstrates how the financialization of agro-industrial linkages have been internalized into uneven production relations between peasant producers facing low and volatile farm gate prices, thereby producing a heterogeneous form of social class restructuring.

Key words: Ecuador; cocoa; financialization, value theory, Marxism, peasants

Introduction

This paper critically investigates the financialization of agro-industrial linkages and the value relations of smallholder cocoa production in Ecuador. This linkage is characterized by two extremes: the highly liquid and volatile trading of cocoa in its financial derivative form and the small scale, labour intensive peasant production in its physical form. Financial trading is now estimated to be almost 10 times the actual physical trade in cocoa (Oomes et al. 2016: 31), a process which has mirrored long-run real term declines in farm gate prices and short-term increases in price volatility. At first glance, this stark disjuncture between the financialized trading of a primary commodity and its physical production would seem to confirm one of the most common understandings of the so-called financialization of capitalism more generally, for profit making to occur in financial spheres rather than trade and productive activities (Krippner 2011, 4). However, to what extent has this degree of

financialization been made possible by, and benefitted from, changes in the production and trade of cocoa? Indeed, calculated as a proportion of chocolate's retail price, the value retained by cocoa producers at the farm gate is at historic lows while, at the same time, trading in cocoa futures has proliferated providing opportunities for oligopolistic traders, hedge funds and manufacturers to hedge against risk and to profit from financial speculation (Cocoa Barometer 2015).¹ Therefore, rather than make appeal to the concept of financialization to explain these changes, this paper explores the ways in which financialization has followed, rather than caused, transformations in the production, trade of processing of cocoa.

As such this paper proposes a different analytical focus to recent research into the financialization of food (Burch and Lawrence 2009; Clapp 2014; Ghosh 2010; Fuchs et al. 2013). This literature has tended to mirror trends in the financialization literature by focusing on the structural economy wide changes that the concept is meant to explain. For this reason, the concept – and its imputed effects – has often run ahead of detailed empirical research. By focusing on the value chain relations of one primary commodity in one exporting country, the contribution of this paper is twofold: it explores how changes in the trade and production of a specific agricultural product has enabled, and been transformed by, financialization; and it develops a detailed analysis of the impacts of financialization upon small-scale agricultural producers (Isakson 2014, 770-1). This is not intended to suggest that one can understand all the complexity of globally differentiated small-scale cocoa production, nor resolve ongoing academic debates about 'financialization', from the country specific study of a single primary commodity and its global value chain. On the one hand, the transmission of world market to farm-gate prices is, in part, mediated by the local institutional context; and, on the other, large

¹ Research conducted between 2012 and 2015, found that the average cocoa farmer earns less than a \$1.00 per day, significantly below the extreme poverty line (Cocoa Barometer 2015: 2, fn 3).

commodity traders are active across a range of agricultural and financial products where cocoa, like any tradable asset, is daily thrown into financial markets vying against and establishing its ‘value’ across asset classes. Therefore, following Christopher’s (2015) recent note of caution about the conceptual and empirical limits of what has become an increasing nebulous category, we seek to deploy ‘financialization’ as a concept which is analytically subordinate to changes in global value relations which, we argue, unite the global financial trading and local production of cocoa. We locate these changes in three inter-related processes: the explosion of derivatives and the financialization of risk (Bryan and Rafferty 2006), which took hold most forcefully in commodity markets following deregulatory turn at the end the century; the consolidation of financialized oligopolistic global value chains by commodity traders (Newman 2009); and the heterogeneous reproduction of petty commodity producers within global circuits of capital (Akram-Lohdi and Kay 2010b; Araghi 2009; Bernstein 2001; Bartra, 2006).²

Taking these processes together allows us to engage with two central preoccupations that emerged from over 6 months of field work conducted between 2015-2017 in the Ecuadorian cocoa sector: weekly price volatility and the poor quality cocoa exports.³ The former was attributed to the way in which prices are set on the futures markets in London and New York and the latter was, in the main, attributed to the deregulated pre-export segment of the chain characterized by the voracious demand of transnational exporters and traders for

² Here we follow Bernstein’s (2001: 29) concept of petty commodity production which ‘specifies a form of small-scale (‘family’ or ‘household’) production in capitalism engaged in more or less specialized commodity production and constituted by a particular combination of the class places of capital and labour.’

³ The research for this paper was conducted as part of the National Strategy Centre for the Right to Territory (CENEDET) housed at the state postgraduate university the *Instituto de Altos Estudios Nacionales* (IAEN) and directed by the Marxist human geographer David Harvey. As scholars operating within the Ecuadorian state apparatus we undertook a sustained investigation into the cocoa sector and benefitted from 31 in-depth interviews within the Ministry of Agriculture (MAGAP) and their Cocoa department (3). We also travelled extensively across cocoa producing zones in Ecuador carrying out semi-structured interviews with small cocoa producers (15), producer associations (6), intermediaries (3), exporters (2) and the cocoa chamber of commerce ANECACOA (2). This paper draws only a portion of this wider research, focusing more squarely, but not limited to, a case study conducted with 4 producer associations.

bulk undifferentiated cocoa.⁴ Both concerns have direct implications for what is perhaps the central issue for small farmers and producer associations – low, and extremely volatile, farm gate prices. Therefore, this paper untangles the dialectical relationship between these material concerns in dialogue with specific processes of financialization at the global scale where cocoa, like other commodities, straddles the financial and physical trading markets. By bringing different scales of analysis into focus we see how the space and place of financialization is not determined a priori but plays out across different scales constituted by distinct value relations (French et al. 2011). In doing so, this paper offers a grounded Marxian value-theoretic analysis to unpack the dialectical relationship between financialized speculative trading of cocoa, the finance-led physical trading strategies and the material effects on direct producers. Whilst producers cannot be considered passive victims – as some have become active, though clearly not equal, participants in export and financial markets – our empirical research demonstrates how transformations in finance-led trading of cocoa have been internalized into uneven production relations that rest on the differentiated integration of peasant producers into financialized value relations.

The structure of the paper is as follows. In dialogue with the financialization of food literature, section one unpacks the seeds of financialization and the encroachment of financial futures markets and derivatives into the world of commodities in general and cocoa in particular. This is complimented by an engagement with the Marxian literature which focuses on the value-theoretic implications of derivatives assuming the price form of world money. Section two develops a specific analysis of the financialized vertical and horizontal integration strategies of large commodity traders active in the cocoa global value chain. Here we draw attention to the way in which financialization has followed, and then contributed

⁴ This paper is concerned with the process of price formation in bulk cocoa trade or ‘fair average quality’. The trade in speciality, or fine aroma, cocoa is a marginal segment of the overall market (5%) and involves quite distinct processes of price formation through premium price fixed contracts outside financial markets (see Purcell et al. 2018).

further towards, concentration among large traders which have been key players in the transformation of both physical and financial trading activities. Section three draws on our empirical case study of financialization and the value relations of small producers and producer associations in Ecuador. In this section we take up the case of the fair trade institution MCCH (*Maquita Cushunchic Comerciando como Hermanos*), a vertically integrated national trader and exporter active on commodity futures markets. Through this case we tie together the way in which financialization has been internalized into differentiated class relations amongst the Ecuadorian peasant producing class. In the conclusion we draw these lines of analysis together to show how the physical and financial trading of cocoa at the global level actively produces volatile and low prices at the farm gate.

Financialization of Food and Agriculture

It was not until the intertwined financial and food crises of 2007-8, led by financial investors looking for new spaces outside equities and real estate to park surplus capital, that scholars began to interrogate the financialization of food and farming. The influx of capital into commodity futures markets was identified as a key driver in rising, and increasingly volatile, world food prices pushing millions in the global south into conditions of starvation (Clapp 2014; Ghosh 2010). Nor were financial investment activities limited to food, as rising prices stimulated institutional investor interest in farmland giving rise to processes we now term ‘land grabbing,’ alongside the wider food regime dominated by finance-led corporate interests in supermarket retailing (McMichael 2012; Fairbairn 2014; Burch and Lawrence 2009). However, as Araghi (2009) has argued, the most recent manifestation of the food crisis is not new and dates back to the transformation of global value relations set in train by neoliberal globalisation. Indeed, the contemporary roots of so-called financialization can be found in the profound transformations of post 1970s capitalism which include – but are not

limited to – the abandonment of the Bretton Woods institutions, the delinking of the gold-dollar standard, capital's response (attacking wages, outsourcing, increasing debt) to a long-term decline in the rate of profit and the, still unresolved, crisis of overaccumulation (Arrighi 1994; Harvey 2003).

Perhaps the principal expression, and certainly the most widely cited, of these transformations has been the rise to dominance of 'financial motives, financial markets, financial actors and financial institutions' in global capitalism (Epstein 2005: 3). Although the implications of this process – not least the concept itself – are still much disputed (French et al., 2011), research into financialization has been orientated by three broad themes: the new locus of profit in financial spheres to the detriment of the real economy (Dumenil and Levy 2005; Krippner 2005); the ascendancy of shareholder value and short term finance-led corporate business strategies (Froud et al., 2000; Crotty 2009); and, the usage and growth of financial concepts and cultures into the cultural realm of everyday life (Martin 2002; Langley 2008). Taking issue with this conceptual proliferation, Christophers (2015, 197-8) argues we should take care to 'spell out' what we mean by financialization, be it the clarification of one's empirical object of enquiry, the spatial and historical frame of reference or put more baldly, 'something increasingly being treated as a pure financial asset' (Christophers 2015, 197-8). We seek to heed this analytical strategy which can certainly sharpen what is meant when designating the processes involved in financialization. Yet, conceptual parsimony could at the same time omit cases where the relations between the physical and financial asset – as in the case of land and agriculture – are not so clear cut (Fairbairn 2014). For this reason, scholars have defended the utility of financialization as a way to capture novel – though not wholly historically unprecedented – processes such as the acquisition of farmland by institutional investors, the deepening role of finance in restructuring agri-food retail supply

chains and the concomitant changes facing highly differentiated global farmers (Williams 2014; Fairbairn 2015; Lawrence 2015).

Indeed, an important contribution made by the financialization of food literature has been to unpack the conjunctural moment, and the changes which preceded it, that enabled food and agriculture to become vectors, our outlets, for over-accumulated capital during the dash away from other asset classes (Clapp and Helleiner 2012; McMichael 2012). The financialization of commodities first took shape in 1991, when Goldman Sachs launched the Goldman Sachs Commodity Index (GSCI) (Spratt 2013; Isakson 2014).⁵ Through a mathematical formula which aggregated a range of commodities together, a single share price was produced that could be traded through a process called the roll-yield, continually buying futures on the premise of rising food and energy prices. This ‘long only’ trading tactic attracted many passive investors such as pension funds looking for steady inflation hedged income streams without the need to own the underlying commodities. However, the watershed moment in this process was the Commodities and Futures Modernization Act (2000) which deregulated commodity markets and firmly opened the door for non-commercial speculators who were not hedging against the risk of physical trades but were simply taking positions in the market to profit from price movements (Kaufman 2010). This destabilized the traditional use of futures contracts – dating back to the 1860 Chicago grain markets – which allowed farmers and end users like grain traders to hedge against the probability that agricultural prices would fall/rise above a specified price (Isakson 2014). An important source of liquidity in commodity markets came from the presence of non-commercial traders speculating on price movements – regulated through position limits to prevent market manipulation – which facilitated ‘price discovery’ allowing buyers and sellers

⁵ Ownership of the GSCI was transferred to Standard & Poor’s in 2007 becoming the S&P GSCI Index.

to trade at any time (Clapp and Helleiner 2012, 186).⁶ However, the progressive loosening of position limits has seen large banks create further index based vehicles which replicate the movement of commodity markets alongside investment in commodity futures to offset risk exposure (Clapp 2014). As a result, agricultural commodities markets have become increasingly weighted toward speculators looking for profits, rather than hedgers looking to insure against price movements (Spratt 2013). The following section unpacks how these processes have played out in financialized cocoa trading.

Financialized cocoa trading

By 1990, the forces of financial and agricultural liberalization saw the final abandonment of price controls, export quotas and buffer stocks that were included in previous international cocoa agreements (1972, 1975, 1980, and 1986). Alongside the intensive financialization of commodity markets in general, prices for cocoa are competitively formed via the London (NYSE-LIFFE) and the New York (ICE) cocoa futures markets. The cocoa futures contract is the price of a financial contract for the future delivery of a specific quantity of cocoa i.e. the notional value is derived from the underlying commodity. A futures contract is standardized in 10 tonne lots for delivery at five dates of the year (March, May, July, September and December). Prices for the futures contracts reflect market expectations about the cash price on the specified delivery date and the price of cocoa at the time of delivery links the physical to the futures market (Dand 2011). Although physical trades are negotiated bilaterally, meaning there is no single spot price, all trades use the price of a futures contract on the exchanges as a point of reference (Oomes et al. 2016). For example, the International Cocoa Organization (ICCO) calculates daily prices as the average of the nearest three futures trading months on the London and New York futures markets. In principle, futures allow physical

⁶ Position limits legally controlled the number of futures contracts that a non-commercial trader (speculator) could hold at any one time (see Clapp 2014, 802).

cocoa traders to lock in prices and hedge against market volatility by transferring risk to non-commercial speculators. However, cocoa futures are increasingly traded as leveraged derivative contracts by financial actors with no interest in physical ownership. A feature of derivative trading is that traders only need to put down a small initial amount called the margin (between 3-10% of the value of the contract). This is known as leverage and makes such contracts attractive to speculators looking to profit from financial exposure to the commodity. It is the separation from asset ownership that is 'key to the money function of derivatives' as it gives liquidity and transferability not possessed by actual commodities or assets (Bryan and Rafferty 2007, 140). As a result, cocoa prices have become extremely volatile owing to the dominance of speculators using futures contracts to buy exposure to, and profit from, price movements.

The entry of non-commercial speculators has been lauded for injecting cocoa commodities markets with liquidity, thereby greasing the wheels of the physical market and ensuring that supply and demand equilibrates through efficient 'price discovery'.⁷ Indeed, mainstream studies have rejected the impact of both market concentration in the value chain and the cocoa futures market on volatile and low prices at the farm gate (Ohemeng et al. 2016; Oomes et al. 2016). However, the growing weight of speculation has led scholars, journalists and organizations like Global Justice Now (GJN) to lambast gambling in the futures market for playing with the lives of small-scale cocoa farmers who are net food buyers and excluded from hedging against price movements (Ryan, 2012; The Guardian 2010). Indeed, because genuine 'hedgers do not generally bet more of the commodity than they have actually grown, the excess of the commodity traded in the futures markets over the physical volume is a rough measure of speculative trading' (Breger Bush 2012, 18). It is

⁷ The aggregation of all market information, that is 'traders' collective wisdom about the probabilities of future economic outcomes', is known as the price discovery role of futures markets (Isakson 2014, 757).

estimated that speculative trading – measured by the US Commodity Futures Trading Commission (CFTC) on the basis of outstanding contracts held by non-commercial traders – in cocoa futures has increased by more than 400 percent between 1986 and 2005 (Nardella 2007: 2). Moreover, between 2001 and 2009 there were more than 24 million lots traded on the LIFFE whereas only 212,000 lots (less than 1 percent of the transactions) culminated in physical delivery (Dand 2011, 154). These figures are testament to the argument that, like all derivative markets, instead of the spot price of cocoa forming the ‘underlying’ value, prices are actually ‘being formed in the derivative markets and were then running into the cash markets’ (Bryan and Rafferty 2006, 63). With this in mind, the following draws on contributions within the Marxian financialization literature to further unfold the relationship between derivatives, value and money before using this to reflect on some of the financialization of food approaches which have addressed the impact on small producers.

Derivatives and financialized value relations

Following the above noted roots of contemporary financialization, when the dollar assumed the form of international credit money (grounded in fictitious capital of US national debt), the very use value of money – the capacity of money to act as the general equivalent of all other commodities through which they express their value in price form – was rendered highly unstable (McNally 2009). Increased uncertainty in the price form and value relations spawned the creation risk management strategies in the form of financial derivatives, especially for transnational companies working in different money and commodity markets. In principle these were designed to hedge against risk in what were now competitively floating and volatile foreign exchange markets, however, starting in the 1980s derivatives underwent a ‘quantum change’ (Bryan and Rafferty 2007, 7), exploding on a global scale making every imaginable risk – from hurricanes to payroll figures – a profit making

opportunity for financial traders. As a result, ‘value-forms have been extended at the same time as value-measures (and predictions) have become more volatile’ (McNally 2009, 57). This destabilisation of value relations and increased financial risk has sparked an interest in the relationship between derivatives, value and the international form of money (LiPuma and Lee 2005; Bryan and Rafferty 2007; Christophers 2016). Derivatives have been identified as a new form of world money because of their capacity to act as the general equivalent of all commodities. That is to say, when particular risks associated with a range of underliers are abstracted into complex financial products and priced competitively against each other, then derivatives can function as a generalized relation of equivalence (Bryan et al. 2015). In their capacity to function in abstraction from the concrete world of commodities, derivatives not only price, but also, produce financial risk and as a result are central to financialized value relations (Christophers 2016).

This abstraction from the materiality of production can be represented as the transition from C-M-C’ to M-M’, where the flight from the real economy has seen ‘disembodied’ money seemingly acquire the occult capacity to make money from itself (Hudson 2010, 424). When the financial asset is bought and sold in separation (temporal and spatial) from the circulation and performance from the capital it represents it takes the form of what Marx termed fictitious capital (Fine 2013, 50). However, far from being totally severed from the realm of production (Leyshon and Thrift 2007), in its fictitious form capital is traded as a claim upon future revenues and a ‘claim upon future labour’ (Harvey 1982, 347). In this vein, Fine (2013, 55) defines financialization as ‘the intensive and extensive accumulation of fictitious capital or, in other words, the increasing scope and prevalence of IBC [interest bearing capital] in the accumulation of capital.’ Similarly, McNally (2009, 56) argues that the term ‘financialisation’ should capture the transformations through which relations between capital and wage-labour have been increasingly financialized – that is,

increasingly embedded in interest-paying financial transactions (McNally 2009, 56). More concretely, these changes have financialized new spheres of social reproduction and even labour itself, opening avenues for the extraction of abnormal profits out of the household and worker's wages through new debt relations (Bryan et al. 2009; Lapavistas 2011). However, be it the high level of abstraction (capital in general) or geographical optic (Anglo-American economies), these accounts leave us somewhat unarmed when trying to link the financialization of commodities to the lives of farmers and peasant producers that do not fall neatly within the formal capital-labour relation or fully developed financial systems.

Farmers and Derivatives

Given that much research on the financialization of food and agriculture tends to reflect the wider literature's theoretical and epistemological diversity, it has rarely unpacked or theorized the dynamics of capital accumulation through which these changes have played out (Ouma 2016). One upshot of this is the positing of a fundamental antinomy between food and finance that tends to bestow historical and spatial novelty on the forms in which finance has encroached on the 'normal' functioning of agricultural markets (Williams 2014). There are certainly novel and important changes brought about by the financialization of food in general, and individual commodities in particular, that researchers have described in empirical detail. This work has highlighted how financialization has exacerbated unequal power relations within agri-food supply chains, often further diminishing the incomes and livelihoods of small farmers within the wider search for financial profits (Isakson 2014). This is the case when considering the reach of financial instruments such as derivatives, even when, as shown by Breger Bush (2012), global institutions like the World Bank and IMF are increasingly pushing them as tools for pro poor farmer's 'development'. The sheer capital requirements – not to mention technical complexity and risk – necessary to hedge against

falls in crop prices remain firmly out of reach of small scale peasants. In this way financial tools to manage risk and stabilize prices are not only limited with respect to peasant labour, but also contribute to volatile prices and declining incomes. Thus financialisation excludes and benefits from the reproduction of peasant labour in different agrarian contexts (Russi 2013).

The squeeze on farmer income, and wider pressures of rising food prices, has especially impacted small farmers producing commercial export crops, as food price rises have outpaced that of coffee and cocoa (Breger Bush 2012, 4). As an export orientated capitalist subsector taking the form of petty commodity production, small producers are particularly vulnerable to the vicissitudes of the global market over which they have no control or influence (Akram-Lohdi and Kay 2010b). However, rather than being external to financial dynamics, the plight, and changing value relations, of petty commodity producers might be more usefully approached as functioning ‘within and through financial processes’ (Christophers 2016, 8), in order to draw further analytical attention to the way in which the dynamics of derivatives assuming the price form of cocoa also rests on and produces local conditions.

As opposed to the numerous derivative instruments that have been created to commodify financial risk – homeowners defaulting on loans or an unforeseeable weather related event – commodity futures are more squarely internal to the real production processes of companies, traders and farmers. Commodity futures can move wildly due to weather conditions, crop yields and political factors which, in turn, tend to further attract speculative non-commercial traders looking to profit from price movements. As a result, a significant part of financial activity goes beyond the hedging/speculation dichotomy and into the very heart of financialized value relations of the global value chain. Indeed, the capacity to mitigate risks through abstraction from messy realm of production plays out across the

embedded forms of (re)organisation of value chains. In the context of the financialization of the global cocoa value chain, it is to these processes we now turn.

Cocoa Derivatives and the Financialisation of the Global Value Chain

In order to specify the role and impacts of financialization in the cocoa global value chain, this section outlines how processes of horizontal and vertical integration undertaken by large traders and hedge funds have been deployed within physical and financial accumulation strategies. These transformations in production occurred amidst the wider abandonment of International Commodity Agreements (ICAs) and the growing ‘financialization’ of trade in general that ‘increasingly bound together commodity prices on the ground with prices that arise on futures markets’, leading to increasing concentration at the international trader level through which ‘large diversified commodity trading companies are deriving increasing incomes along new financial avenues’ (Newman 2009, 541). While this contributes to the call for further study into how the trade in specific agricultural products has been transformed by financialization (Isakson 2014, 770), we also draw attention to the dialectical relationship between changes in the trade and processing of cocoa and financialization. Put differently, financialization can be understood as an expression, rather than the cause, of the risks (commodified in the form of derivatives) associated with the re-organisation of the global cocoa value chain characterized by the concentration of international traders, low margin and high volume trading, short term price volatility and long term price declines for small holder producers.

Bulk trade and hands off vertical integration

By 2013 the three largest cocoa trading and processing (grinding) companies, Barry Callebaut, Cargill and ADM, traded up to 60 per cent of the world’s cocoa production (UNCTAD 2016, 14). Adapting their experience from the grain trade, Cargill and ADM

pioneered the transport of cocoa by directly loading beans into the holds of mega-bulk carriers which are transported to quayside factories in Amsterdam (Fold 2002, 237). Only the largest traders can bear the financial risk and meet the weight requirements (between 3,000 and 10,000 tonnes) for this type of trade, nevertheless by 2010 half the beans shipped globally were in this form (Dand 2011). The ability to source vast amount of cocoa rests on a ‘hands off’ – no contracts with producers or direct land ownership – vertical integration into local markets where a network of brokers, intermediaries and strategically located processing centres are used to fill orders for their shipments. Especially following the dismantling of import substitution strategies in exporting countries, this has seen financial, purchasing and processing power accumulated in the hands of international traders that control bulk cocoa trade through containerized logistical networks and work according to Just-in-Time (JIT) production systems (Talbot 2002). This has been paralleled by horizontal integration into the grinding and processing segment of the chain where the same big companies, along with Blommer, now control an estimated 61 per cent of world grinding capacity. These companies produce cocoa butter, liquor and powder and are able to adapt bulk standard cocoa to the specific needs of final manufacturers, reducing the need for a crop with physical conformity (Fold 2002, 233).

To understand these changes within the global cocoa industry, Fold (2002) has adapted Sturgeon’s analysis of American industrial organization and argued that a ‘turn-key network’ system captures the division between industrial merchant suppliers [grinder/traders] and branded final manufacturers within the cocoa-chocolate production chain.⁸ The main feature of this form of ‘bi-polar’ chain governance is the bias towards economies of scale, and although it is less easy to ascertain the exact locus of ‘driving’ the oligopsonic structure

⁸ The turn-key network system allows merchant contractors to improve industrial efficiency (through automated and programmable production systems) so that orders and contracts can be fulfilled with a low degree of uncertainty (Fold 2002, 243).

of the global market has consolidated farmers as ‘price-takers’ and eliminated the regulatory role of producer countries (Fold 2002, 244; Losch 2002, 225). However, in general, the GGC/GVC literature has had less to say about the financial strategies – and their implications for small producers – which have grown out of traders assuming this governance role within the chain.⁹

Financialized chain governance and hands-off supply relations

In addition to their own speculative activities in commodities markets, large agro-industrial capitals also act as physical traders and financial intermediaries’ and provide chocolate manufacturers with access to commodities alongside risk management services.¹⁰ For instance, Cargill’s website advertises

‘...dynamic hedging activities in the cocoa bean market’ where ‘the aim is to get a price that outperforms market average to keep you ahead of the competition and safeguard your margins. We will leverage our in-house cocoa research capabilities and trading and risk management expertise to provide improved performance.’¹¹

These hedging services are predicated on vast insider knowledge of production yields, storage facilities and supplies, giving them an advantage when speculating in derivate markets and maintaining their competitive edge (Salerno 2014; Mayer 2012; Murphy et al 2012). This allows large traders to position their financial products to both service manufactures looking to hedge and speculative investors looking to benefit from price movements (Clapp 2014). In this way, for the large traders involved in the cocoa market (and wider commodity trade) the social roles of hedger and speculator have been internalised

⁹ However, see Newman (2009) for a consideration of the role of finance and financial markets in the coffee commodity chain.

¹⁰ For example, in 1994 Cargill founded Cargill Risk Management (CRM) to sell individualized financial products for its own purposes and for third-party customers (Clapp 2014, 804).

¹¹ See <https://www.cargill.com/food-beverage/price-risk-services/performance-pricing> 14/08/ accessed 14/08/2017

blurring the lines between the physical trade and production (i.e. cocoa processing) and the financialized trading of cocoa as a pure financial asset. This highlights how putatively non-financial agro-industrial capitals have become increasingly involved in commodity trading and financial product innovation (Burch and Lawrence 2009; Clapp 2014). However, whilst profits from financial activities can wildly outweigh those from production (Murphy et al. 2012), the analytical separation of the two is problematic in so far as it can obfuscate the mutual constitution between ‘real production’ (concrete risk) and ‘financial speculation’ (financial risk) and the concomitant material impacts of financialization outside the rarefied spheres of futures trading. In this light we can see that the possibility of financial abstraction from production is ‘grounded in very real, material changes’ within the ‘socio-technical networks of storage, transportation and measurement of commodities’ (Williams 2014: 417), from which the specific form of financialization follows.

Research into agro-industrial food chains has noted that a particular modality of financial investment and engineering occurs within certain stages such as inputs for production, processing, commodity trade, storage and logistics (Burch and Lawrence 2009, 2013; Isakson 2014). In the case of cocoa, financial engineering has been pioneered by traders rather than final retail manufacturers. These traders are focused on downstream activities, particularly trade, logistics and storage leaving areas like inputs for production to the domain of direct peasant producers. This echoes the point made by Akram-Lohdi and Kay (2010, 188) – drawing upon the classic insights of Kautsky (1988) – that agro-industrial capital can restrict itself to downstream activities whilst continuing to benefit from petty commodity production. Indeed, this captures important aspects of global rural change and the ongoing integration of peasant producing labour within global circuits of capital (Araghi 2003, 50). Cocoa is a highly labour intensive, risk prone and geographically specific form of production restricted to areas within 10 to 20 degrees of the equator. Production is undertaken

by an estimated global labour force of 5 million owner-producers with an average 2 hectares of land and earning less than \$2 day (UNCTAD 2016). As Marx (1991: 941-2) noted, the normal dynamics of profit and rent do not apply to this form of peasant production, the tendency to push wages down to a 'physical minimum' compensates for their inability to realize average rates of profit and being the landowner there is no need for a rental payment, thus eliminating the mechanism to capitalize ground-rent in the form of a rental price. As such, this form of hands off supply transfers production risks onto petty commodity producers whose self-exploitation translates into lower labour costs for capital and allows agribusiness to concentrate on the financialization of downstream 'value-generating' activities like trading and processing (Isakson 2014). This serves to reproduce a system of peasant production in which surplus labour is extracted, not via the wage form but, through the depressed price of the primary commodity (Kautsky 1988). The advocacy consortium Cocoa Barometer estimates that, when adjusted for inflation, cocoa prices have been lower only during times of major global crises and depression; and from the early 1980s prices have been in a steep decline well under long term averages (Cocoa Barometer 2015). The profit squeeze on petty commodity producers is expressed in the dramatic reduction of value retained by producers which has fallen continuously from around 60 per cent in 1970, 28 per cent in 2000 and finally to between 4-6 per cent by 2015 (Abdulsamad et al. 2015, 24). As will be shown below, the dual capacity of agro-industrial capital to source from petty/peasant commodity producers (who absorb risk in the realm of production) and take advantage of financialized cocoa trading (commodify financial risk through derivatives trading) expresses, and unites, two extremes of the global value chain.

Internal relations between financialized physical and futures trading

Financialized supply management strategies can be very profitable – although replete with risk – as large trading companies and hedge funds look to take advantage of their positions within manufacturing, storage and distribution. For example, when the market enters into a ‘contango’ phase – futures prices are above the spot price at the point of maturity of the futures contract – this is considered indicative of limited future supplies.¹² This can influence trading decisions through strategies known as arbitrage, the attempt to exploit price differences between the futures and physical market. For instance, in a contango market physical trades can also include storage trades, whereby the end manufacturer is concerned with future supply shortages and is willing to pay premium to a trader or hedge fund with storage capacity. Equally, higher futures prices, as was the case across commodities following the 2008 crisis, can incentivize traders to hoard commodities themselves and speculate on their increased value (Bonanno 2016: 11). In such a scenario, vertically integrated traders and hedge funds can import greater risk and competition into local markets by offering above spot market prices (within the margin of profitability identified in the futures price) in an effort to capture more physical supply. As explored in empirical detail below, while this can increase farm gate prices in the short-term it also encourages small producers to shorten post-harvest rotation cycles (reducing cocoa quality) and the overriding implication is heightened price volatility, risk and competition for producer associations in local markets. Although a clear causal mechanism is hard to establish, large trading companies and hedge funds active on the physical side can use arbitrage strategies to change local buying strategies in effort to profit from their position in futures markets.

In 2002 a cocoa trader sardonically named ‘chocolate finger’ stockpiled 15 percent of the world’s cocoa supply through a huge position taken through the LIFFE futures market in

¹² When futures prices are below spot prices – the normal state argued by Keynes (1930) – the market is said to be in ‘backwardation’.

London for the commodities trading hedge fund Armajaro.¹³ As a vertically integrated hedge fund and trader, Armajaro attracted private investment through pioneering its own weather stations, deploying feet on the ground in growing regions to provide immediate data on crop yields and linking directly with a network of small producers. Cementing his pseudonym, in 2010 ‘chocolate finger’ placed another huge position worth \$1 billion on the futures market buying 241,000 tons, pushing cocoa prices to a 33 year high and drawing the ire of other cocoa companies who complained of market manipulation. However, before Armajaro could offload the beans – that is to say ‘square’ its position with a sale on the futures market – purchased at \$3,200 a ton, in the space of three months’ cocoa prices fell by 30 percent as speculators began to short the market on the back of a bumper crop in the Ivory Coast. As a result, Armajaro was unable to roll-over its position and was left with huge physical stocks that it could only sell at a loss. In 2012, on the back of further losses of \$17.3 million, a negative cash flow and interest payments amounting to \$28 million, Armajaro sold-off its trading arm to the Swiss agricultural trader Ecom which became one of the largest global cocoa traders alongside Barry Callebaut, Archer Daniels and Cargill.¹⁴

The fate of Armajaro – also linked to the local scale in the case study below – is useful to consider some features of financialization within the global cocoa value chain. In one respect, the trades placed by Armajaro are indicative of speculation and gambling by hedge funds which seek to benefit from the price volatility they also create (Pike and Pollard, 2010); the scale of physical and financial investment, sharp price movements and high level of risks also capture contemporary aspects of financialized commodity trading (Mayer 2012); and, finally, the take-over by Ecom highlights the tendency towards Mergers and Acquisitions, the maximization of shareholder value and increasing concentration amongst

¹³ See, <http://www.telegraph.co.uk/finance/2857532/Chocolate-finger-makes-a-10-million-bean-as-stockpiling-gamble-pays-off.html>

¹⁴ Financial Times Nov 11 2013 <https://www.ft.com/content/8fb81fa0-5374-11e3-9250-00144feabdc0>

commodity traders (Spratt 2013). While these tropes from the financialization literature describe important features of the financial trading undertaken by Armajaro, from a value-theoretic perspective this shows how futures trades that carry enormous financial risk can also come crashing down amidst the concrete results of physical trade and production. Therefore, as we argued above, if financialization can be understood as an expression of material changes driven by agro-industrial capital within the cocoa value chain, then bringing these insights to bear on the specificities of the cocoa economy in Ecuador can shed light on how the peasant production performs functions for (cheapens the price of the commodity) and is reproduced by the dynamics of financialization.

Financialized vertical integration and the impact on producer associations and small producers in Ecuador

The 1980s debt crisis in the Global South saw the tearing apart of agricultural supply management policies and their replacement with free market export orientated strategies. This ‘structural adjustment’ process, ramping up pressure for liberalization and privatization, was acutely felt amongst the world’s small-scale petty commodity producers exposed to a volatile world market and value chains increasingly under the control of global oligopolistic agri-businesses (Akram-Lodhi 2014). As Breger Bush (2012: 122) has argued, the world of financial derivatives ‘requires and thrives upon underlying markets where prices are determined by private forces instead of government, where trading is relatively strong globally and where prices are relatively volatile.’ Drawing on case study material, this section traces how producer associations and small producers have responded to transformations in the sector driven by finance-led buying strategies and derivatives functioning as the price form of cocoa.

Financialization follows Deregulation

By the mid-1980s cocoa prices had fallen from their 1970s peak of UD\$3,000 to UD\$1,000 per tonne (Moran 2008: 36), this initiated the first wave of structural adjustment policies and market deregulation in Ecuador's cocoa sector.¹⁵ Agrarian reform policies were replaced by the Program of Rural Development which abolished export taxes, quality controls and public commercialization (Official Registry 1980, 2). Deregulation left small producers without any economic or technical support, and at the mercy of an unregulated chain of private intermediaries exerting downward pressures on increasingly volatile producer prices (Purcell et al 2018). By the mid-1990s all interventions in the cocoa sector, in line with the general ideological thrust of World Bank-inspired rural poverty alleviation programs (Berstein 2002), were designed to secure property rights, improve productivity and better insert small producers into the logic of the market through the formation of small businesses and cooperatives (Martínez 2014, 133-134). In the same period, conforming to the global trend towards liberalization, privatization and declining cocoa quality (Fold 2002, 246), the International Cocoa Organization (ICCO) passed a resolution downgrading Ecuador from a 100 percent to a 75 percent producer of fine aroma cocoa (Troya 2013, 53). This downgrading was linked to the deterioration of post-harvest quality control (fermenting and drying) and the mixing of different cocoa varieties. This occurred alongside the privatization of governance as the National Association of the Cocoa Exporters of Ecuador (ANECACAO) took control of commercialization, the management of export databases and national production statistics. ANECACAO counts the largest transnational exporters and their brokers as its most important paying members and will only accept new members that export

¹⁵ Space restricts a full historical account, but cocoa formed the basis of Ecuador's insertion into the world market in the late 19th and early 20th century and was integral to the generation of foreign exchange, the banking sector and incipient processes of industrialisation, for the classic accounts see Chiriboga (2013) and Guerrero (1994). Although not addressing the cocoa economy specifically, see Peralta and Hollenstein (2015) and Clark (2017) for recent accounts of rural territorial dynamics and agricultural development in Ecuador.

a minimum of 500 metric tonnes annually. It is in this context that producer associations – many with their origins in the radical agrarian mobilizations for land initiated by peasant movements in the 1960s and 1970s – emerged as non-state and non-profit development initiatives providing buying cooperatives, some production support and espousing messages of social justice. The entry point for our empirical case study is provided by one such producer association, MCCH (*Maquita Cushunchic Comerciando como Hermanos*).

Financialization with social goals?

In the words of Father Graziano Mason, a Catholic priest and social activist, MCCH was formed in response to ‘the reality of rural hunger.’¹⁶ Starting in 1985, peasant organizations and community neighbourhood associations in the south of Quito allied with the members of the clergy to create a network of local stores to link products produced by peasants to poor urban consumers at fair prices within the social and solidarity economy. MCCH became involved in the commercialization of cocoa at the request of peasant producers that were increasingly ‘cheated’ by a network of private intermediaries.¹⁷ MCCH pioneered a network of strategically located buying and processing centres (*centros de acopio*) along with credit and saving associations to support small producers. Through their export division AgroMaquita, it directly exported their first lot of cocoa in 1991 and have since grown to be the 5th largest national trader (behind transnationals like Nestle, Transmar, Olam and ECO) exporting 10,000 tons annually. MCCH now sell to international clients like Olam, Mars, Ferrero Rocher and different clients in Europe and control 24 processing and buying centres across the country. MCCH is the only domestic exporter that has a fully vertically integrated supply chain linking its small associated producers to the wholesale export market.

¹⁶ Interview, Father Graziano Mason.

¹⁷ Ibid.

As an umbrella foundation in the social and solidarity economy, MCCH unites around 400 small cocoa producer associations and approximately 13,000 small cocoa producers across the country. In addition, MCCH is the only domestic association that makes use of the futures market and as such provides a unique lens on the spatial scales through which finance-led buying strategies operate in empirical context.

The first element to note is how MCCH make use of forward credit lines (*anticipos*) to capture supply from local producer associations. This is necessary to be competitive in the export market which requires the ability to respond quickly to bulk orders placed by brokers willing to pay a slight premium for volume. This large scale vertically integrated operation requires a coordinated finance-led buying strategy and a monthly rotation of capital of \$1.5 million dollars to supply each collection centre with around \$70,000 dollars a month to purchase from producers. At the time of field work MCCH had competitive credit lines with the Bank of Venezuela (3 percent), La Caixa from Spain (4 percent) allowing them to escape the 14 percent interest rates of local banks. Although some small production loans and credit lines are available within the network of small savings and loan cooperatives,¹⁸ the majority of producer associations and their peasant members working within MCCH's network do not meet the minimal thresholds for credit-worthiness that would allow their land and labour to count as capital (cf. Bryan and Rafferty 2008: 462). Formally, this is because of their status as not profit organizations within the social economy but really amounts to the fact that lending to peasants and producers associations is deemed too risky. Banks will not accept either land or infrastructure as collateral and both the government and NGOs in the sector eschew direct lending in favour of technical support. As a result of their inability to raise their own finance capital to cover operating costs, small producer associations depend on forward

¹⁸ For example, the Bancodesarrollo and Fondo Ecuatoriano Populorum Progressio (FEPP), linked to the Ecuadorian Episcopal Conference, form part of the financial support network within the rural economy.

credit lines (*anticipos*) made available on a weekly basis. However, this also ties the debt of the producer associations working with MCCH directly to price that they can offer to their members, reducing the bargaining power of both parties within the cocoa value chain.

For example, COCPE (Corporación de Organizaciones Campesinas de la Provincia de Esmeraldas) which brings together 13 grass roots producer associations (numbering 550 families) in the province of Esmeraldas, depend on forward credit supplied by MCCH to finance weekly operations. However, these credit relations with exporters [MCCH] ‘means you are moored’ and whilst other exporters may be offering better prices ‘you become trapped through the credit you owe’.¹⁹ It was through the dynamics of this supply relation that claims by MCCH to support social justice and incomes of small producers were thrown into question. As the President of COCPE revealed, MCCH were paying \$5 less a quintal (sack) than it was paying private intermediaries [in order to meet brokers demands], asking rhetorically, ‘how are we meant to compete on price with our own exporter?’ When asked about costs of production and what COCPE was paying its producers the response was candid: ‘Well, unfortunately, if we refer to costs of production that we [small producers] have for each quintal of cacao, we would have to be paying at least \$150-160 dollars per quintal. But at the moment we are paying \$108-110 ... these are survival prices without any profit at all’ and for this reason ‘every dollar counts in cocoa.’²⁰

As opposed to the type of forward credit lines offered by MCCH, transnationals in the sector do not work on credit and favour competing for hands-off supply wholly through price. However, as noted above concrete spot prices cannot be understood in separation from the dynamics of derivatives assuming the price form of cocoa in the futures market. It was in this context that respondents reflected on the fate of the above outlined case of Armajaro. In an

¹⁹ Interview, COCPE President.

²⁰ Ibid.

effort to capture the market and outcompete local producer associations they were ‘offering crazy prices, \$10-12 above the [spot] market rate ... I was shocked they had invested millions in their supply chain then went bankrupt.’²¹ It is telling that this coincided with the above outlined period of market ‘contango’, during Armajaro’s attempt to corner the global market through its position on the futures market. This suggests that the financialized vertical integration strategies of transnationals incentivizes traders like Armajaro to ramp up their physical purchases of cocoa, injecting local markets with capital and even buying above spot price market rates based upon projections of the futures price. This competitive pressure was cited as the reason why MCCH is forced to make use of futures contracts:

‘There have been moments of intense local competition when I have put lots for sale on the futures market. It’s a little complicated. We prefer not to do it, but there are moments when you have to. I have not enjoyed it and I don’t do it often. One time we had a problem, in 2006 we lost a lot, close to 1800 tons that had been sold on the futures market and we had to fulfil the contract in any form possible.’²²

In order to unite the somewhat technical account of how futures operate with their real implications further down the value chain it is useful to unpack some of the details of this trade placed by MCCH. This type of physical trade is set bilaterally, often through the use of a broker, between buyer and seller according to the agreed futures contract. The seller will agree to deliver a specific quantity of cocoa at a specific price, time and place and the buyer agrees to take delivery on the same terms. There are two futures positions, short: agreeing to sell without entering a purchase contract; and, long: buying the commodity without entering a sales contract. The association representing small farmers may sell forward (go short) betting prices will fall and the buyer goes long (buying forward) betting prices will rise (Dand 2011). However, the cocoa being delivered has to originate from a physical purchase and there is

²¹ Interview, MCCH General Manager.

²² Interview, AgroMaquita exporting arm of MCCH.

considerable risk associated with the short position of a farmer or trader – i.e. agreeing to sell at a given price – which can lead to heavy losses if the real costs of procuring the quantity rises above the agreed futures price. In this scenario, when ‘the basis weakens (becomes more negative), the short hedger’s gains in the futures markets will not cover her losses in the cash market, all else equal’ (Breger Bush 2012: 69 emphasis original).²³ Therefore, when MCCH took a position to sell forward it was hedging against a price fall, using its position in the futures markets to offset their position in the cash market to stabilize incomes and compete on price in the physical spot market. Given that delivery volumes and dates are fixed alongside the agreed futures price, movements in the local spot market (i.e. the real costs of fulfilling the contract) can result in huge losses. Far from locking in a price to reduce exposure to market movements, this futures contract was taken out in response to local market conditions rather than as a way to ‘rationally’ manage risk.

Unable to fulfil the contract the General Manager and President of MCCH even travelled to Europe to speak directly to the buyer in order to gain some time in fulfilling the contract. During this time 1800 tons represented 6 months of production and ‘we had to deliver at the agreed price.’²⁴ Losses through this transaction for AgroMaquita amounted close to US\$2 million (when their circulating capital was only \$300,000), but as the General Manager went on to explain, ‘I had to do it, I could not remain behind. If so our producers would have said ‘a transnational pays us more than Maquita.’²⁵ This was precisely the response of Pepa de Oro (Golden Nugget) a small association of producers originally founded through technical and financial support from MCCH’s socio-development programs. When another vertically integrated transnational trader Transmar, through its own access to capital and financial diversification, began to offer \$5 to \$10 dollars more per sack ‘we had to break

²³ This is referred to as ‘basis risk’ when the cash price moves out of sync with the futures contract. The “basis” is defined as the cash price less the future price at a given point in time (Breger Bush 2012: 69).

²⁴ Interview, MCCH President.

²⁵ Ibid.

away because they [MCCH] could not compete' and 'from the point of view of our association we cannot prejudice our producers.'²⁶ This illustrates how supply relations are driven by the competitive formation of prices and the way in which the purchasing power of transnational traders, underpinned by financialized trading strategies, is transmitted along individual cocoa chains.

Reports of changes in price volatility mapped wider changes in commodity markets noted above, especially the flight of capital away from equities and real estate into commodities. As the general manager of MCCH commented,

'since 2006 the price has become too volatile, but 5 years before you could sell a year's production without any problems. We worked in peace, changes in prices would be around \$200 dollars per ton, but now the market can jump by a \$1000 dollars.'

MCCH still sell lots on the futures markets, especially in response to market movements led by production levels in Africa, claiming Maquita has 'to speculate because everybody [transnational traders] is doing it.'²⁷ This is aided by the technologies of financialization such as computerization which has enhanced access to price and market data through any computer or wireless device (Williams 2014). Such data is available not only to traders but farmers and producer organisations such as MCCH, the general manager explained how he pays \$100 a month to have live market access on his smart phone and sometimes gets up 'at 2 or 3 in the morning to play the European market'. However, following the losses described above, Maquita only sells forward in smaller lots that have already been purchased in order to protect itself from the financial risk posed by futures prices moving out of sync with the spot market. Here we can see how, far from capacity building and inclusion in financial markets, the impact of financialization is lower concrete

²⁶ Interview, Pepa de Oro President.

²⁷ Interview, MCCH General Manager.

prices for its network of supply associations during moments of price volatility and local spot market competition.

Quality and Price: Commodity form of speculation

Up to this point we have only been able to discuss how financialized supply strategies impact relatively well organized producers attached to producer associations with different degrees of credit-based supply arrangements. Of the 115,000 small scale cocoa producers in Ecuador only around 50,000 work through some form of association, buying union or cooperative. This leaves an estimated 65,000 non-associated small owner-producers, with an average of 2 hectares of land and some of the lowest levels of productivity in Latin America, directly exposed to a value chain which forces prices down further at every node. Territorially isolated, these producers rely on a network of around 1,000 commercial intermediaries as their link to a chain composed of local buyers and agents, area traders and national wholesale traders. The national chain culminates in Guayaquil where the largest bulk export companies (the transnational traders) control up to 70 percent of overall exports and effectively control the hands-off supply chain. As noted above, prices on the futures market are quoted in tonnes which forms the basis for prices in the spot market, discounted by 25 percent because of the national downgrading of Ecuadorian cocoa by ICCO. Producers are paid per quintal of which there are 122 in a tonne. These prices can change on a daily and weekly basis according to the movements of futures prices. In addition, price formation across cocoa producing territories is highly uneven and differences in the amount a producer receives per quintal can fluctuate anywhere between \$3 and \$15 with many often cheated on weight and price.

Yet, in addition to the formation of different physical prices across producing territories a major factor in the relationship between quality and price is the futures market volatility – i.e. derivatives assuming the price form of cocoa. Reflecting on the relationship

between low quality cocoa and prices the General Manager of The National Union of Peasant Cocoa Producers of Ecuador (Union Nacional de Organizaciones Campesinas Cacaoteras del Ecuador - UNOCACE) commented:

It is not because the intermediary mixes, because the producer does not carry out postharvest, because the exporter is shameless, or because the international broker wants to take advantage of poor quality to gain weight ... These are no more than effects of a marketing process based on speculation ... poor quality is because cocoa is a commodity traded on the stock market and is exposed to daily speculation.²⁸

Whilst defended as an efficient form of ‘price discovery’ at the scale of the world market, daily and weekly price movements incentivizes producers at the local scale to shorten the post-harvest cycle (normally 10 days) and rush their crop to market reducing quality and further pushing down price based on quality assessments. This was evident between October 2016 and January 2017 when the price per ton fell from \$3000 to \$1800 and small producers began to deliver cocoa of poorer and poorer quality in an attempt to stave off declining incomes. Therefore, by uniting our analysis of the formation of concrete spot prices with the dynamics of derivatives assuming the price form of cocoa, we see how the production relations of small non-associated producers are also internally shaped by the dynamics of financialization. This is characterized by the hands-off supply chain seeking to fill bulk orders for large financialized commodity traders and the financialization of cocoa on the futures market which, by increasing price volatility, undermines both income and cocoa quality – deepening the value relations of self-exploitation in a financialized form.

Conclusion

²⁸ Created legally in 1999, UNOCACE is another important association of producers composed of 12 organizations in five provinces of Ecuador which amounts to almost 1000 small producers covering nearly 5,000 hectares.

In *Capital* Volume III Marx (1981: 941–942) identified a class of peasant producers which he termed ‘small agrarian capitals.’ This category was deployed to capture what was deemed to be a transitional form of production because peasants depress wages, suffer relative rising costs and would soon be outcompeted by the rising tide of capitalist agriculture. However, historical materialist agrarian scholarship has developed the rich concept of petty commodity producer to show that far from being a bygone relic, peasants have been reconstituted by neoliberal globalization and the global value chains into which, some, are inserted (Bernstein 2001). A goal of this paper was to focus on one such class of petty commodity producers and interrogate their insertion into the financialized global cocoa value chain, in order to draw attention to the value relations which underpin historically low prices at the farm gate.

To do so this paper integrated two different scales (global/local) of analysis and mobilised financialization as an analytically subordinate concept to the value relations that unite international traders with small cocoa producers. This brought into focus how the space and place of financialization is not confined to the financial sphere but plays out across different scales linked by financialized agro-industrial linkages within the value chain. This conceptual strategy allowed the paper to show how the trade and production of a specific agricultural product has enabled, and been transformed by, financialization. The social role of physical trader and financial speculator has been internalized by large commodity traders. Although this serves to blur the lines between the real and financial profits, the paper argued that if agro-industrial capital has become financialized then logically such capitals will also leverage their financial resources and knowledge to increase competitiveness within sectors where they have sunk costs. However, in the example of Armajaro cited in the paper, the ‘external and coercive laws’ of competition that ‘subordinates every individual capital to the immanent laws of capitalist production’ took a decidedly financial form (Marx, 1976: 739). In this sense, finance capital is not just footloose searching for profitability from any and all

parts of the world economy, but can also be leveraged towards, and attached to, strategies where traders competitively seek to influence, and profit from, price movements and financial risk they themselves create. Nevertheless, the attempt by Armajaro to uphold its leading position as a commodities hedge fund, by placing an enormous futures trade with considerable financial risk, came unstuck following the real results of production in West Africa and its concomitant bankruptcy and exit from Ecuador.

In the empirical section we argued that physical prices cannot be separated from the dynamics of derivatives assuming the price form of cocoa. The formation of prices for small producers and producer associations was shown to be mediated by both their class positionality within the broader peasant producing class and through their financial relations. Taking up the case of MCCH, forced into the futures market by intensified local price competition, it was shown how competitive pressures to secure export quotas tends to push prices down for associated producers moored through debt relations. In the case of non-associated producers, excluded from any formal financial relation, it was shown how the financialized and deregulated value chain that links small producers, through the nodes of intermediaries, to large exporters gives rise to low and uneven price formation across producing territories. This was coupled with the tendency of small producers to rush post-harvest production cycles in order to get their crop to market when price volatility on the derivatives market is transmitted down the value chain. This sucks small producers into a vicious cycles of low productivity, low quality and low prices – absorbing their own financial risk while, at the same time, engaging in self-exploitation and cheapening the price of commodity production.

References

- Abdulsamad, A., Frederick, S., Guinn, A. and Gereffi, G. 2015. *Pro-poor development and power asymmetries in global value chains*. Duke University, Center on Globalization, Governance and Competitiveness.
- Akram-Lohdi, H., and Kay, C. 2010. "Surveying the agrarian question (part 1): unearthing foundations, exploring diversity". *The Journal of Peasant Studies* 37 (1):177-202.
- Akram-Lohdi, H., and Kay, C. 2010b. "Surveying the agrarian question (part 2): current debates and beyond". *The Journal of Peasant Studies* 37 (2):255-284.
- Araghi, F. 2003. "Food regimes and the production of value: some methodological issues". *The Journal of Peasant Studies* 30 (2):41-70.
- Araghi, F. 2009. "Accumulation by displacement: global enclosures, food crisis, and the ecological contradictions of capitalism". *Review (Fernand Braudel Center)* 32 (1): 113-146.
- Arrighi, G. 1994. *The Long Twentieth Century: Money, Power and the Origins of Our Times*. London – New York: Verso.
- Bartra, A. 2006. *El capital en su laberinto. De la renta de la tierra a la renta de la vida*. México D.F.: Universidad Autónoma de la Ciudad de México, Centro de Estudios para el Desarrollo Rural, Itaca.
- Bernstein, H. 2001. "The peasantry in global capitalism: who, where and why?" *Socialist Register* 37:
- Bonanno, A. 2016. "La financiarización de la agricultura y alimentos en el contexto de la reestructuración neoliberal: rasgos principales y contradicciones fundamentales". *Estudios Rurales* 5 (10): 1-17
- Bryan, D., and Rafferty, M. 2006. *Capitalism with derivatives. A political economy of financial derivatives, capital and class*. New York: Palgrave MacMillan.
- Bryan, D., and Rafferty, M. 2007. "Financial Derivatives and the theory of money". *Economy and Society* 36: 1, 134-158.
- Bryan, D., Rady, M., and Rafferty, M. 2009. "Financialization and Marx: giving labor and capital a financial makeover". *Review of Political Economics* 41: 458-472
- Bryan D, Rafferty M and Jefferis C (2015) Risk and value: Finance, labor, and production. *South Atlantic Quarterly* 114: 307–329
- Breger Bush, S. 2012. *Derivatives and Development: a political economy of global finance, farming, and poverty* Palgrave Macmillan: London and New York
- Burch, D., and Lawrence, G. 2009. "Towards a third food regime: behind the transformation". *Agriculture and Human Values* 26: 267.

- Clapp, J. 2014. "Financialization, distance and global food politics". *The Journal of Peasant Studies* 41(5):797-814
- Clapp, J., and Helleiner, E. 2012. "International political economy and the environment: back to the basics?" *International Affairs* 88 (3):485-501.
- Clark, P., 2017. "Neo- developmentalism and a "vía campesina" for rural development: Unreconciled projects in Ecuador's Citizen's Revolution". *Journal of Agrarian Change*, 17(2): 348-364.
- Chiriboga M (2013) *Jornaleros, grandes propietarios y exportación cacaotera 1790-1925*. Ecuador: Corporación Editora Nacional, Universidad Andina Simón Bolívar
- Christophers, B. 2015. "The limits to financialization". *Dialogues in Human Geography* 5 (2):183-200
- Christophers, B. 2016. "Risking value theory in the political economy of finance and nature". *Progress in Human Geography* <https://doi.org/10.1177/0309132516679268>
- Crotty, J. 2009. "Structural causes of the global financial crisis: a critical assessment of the 'new financial architecture'. *Journal of Economics* 33 (4):563-580.
- Dand, R. 2011. *The International Cocoa Trade* 3rd Edition. Elsevier eBook ISBN: 9780857091260
- Duménil, G., and Lévy, D. 2005. "Costs and Benefits of Neoliberalism". *Financialization and the World Economy* edited by Epstein, G. 2005. Northampton: Edward Elgar.
- Epstein, G. 2005. "Introduction: financialization and the world economy" (3-16). *Financialization and the World Economy* edited by Epstein, G. 2005. Northampton: Edward Elgar.
- Fairbairn, M. 2014. "'Like gold with yield': evolving intersections between farmland and finance". *The Journal of Peasant Studies* 41 (5):777-795.
- Fine, B. 2013. "Financialization from a Marxist Perspective." *International Journal of Political Economy* 42 (4): 47–66.
- Fold, N. 2002. Lead Firms and Competition in 'Bi-polar' Commodity Chains: Grinders and Branders in the Global Cocoa-chocolate Industry. *Journal of Agrarian Change* 2 (2):228-247.
- French, S., Leyshon, A., and Wainwright, T. 2011. "Financializing space, spacing financialization". *Progress in Human Geography* 35 (6): 798-819.
- Froud, J., Haslam, C., Sukhdev, J., and Williams, K. 2000. "Restructuring for shareholder value and its implications for labour". *Cambridge Journal of Economics* 24:771-797

- Fuchs, D., Meyer-Eppler, R., and Hamenstädt, U. 2013. "Food for Thought: the politics of financialization in the agrifood system". *Competition and Change* 17 (3): 219-233.
- Ghosh, J. 2010. "The unnatural coupling: food and global finance". *Journal of Agrarian Change* 10 (1):72-86.
- Guerrero, A. 1994. *Los Oligarcas del Cacao*. Quito: Editorial El Conejo
- Harvey, D. 1982. *The limits to Capital*. London: Verso.
- Harvey, D. 2003. *The New Imperialism*. Oxford: Oxford University Press.
- Hudson, M. 2010. "From Marx to Goldman Sachs: The Fictions of Fictitious Capital, and the Financialization of Industry". *Critique* 38 (3): 419-444.
- Isakson, S. R. 2014. "Food and finance: the financial transformation of agro-food supply chains". *The Journal of Peasant Studies* 41 (5):749-775.
- Kaufman, F. 2010. "The food bubble: how Wall Street starved millions and got away with it". Accessed August 30 2017. <http://frederickkaufman.typepad.com/files/the-food-bubble-pdf.pdf>
- Kautsky, K. 1988. *The agrarian question in two volumes* (Vol 1). London: Winchester, Mass.
- Krippner, G. 2005. "The financialization of the American economy". *Socio-economic Review* 3 (2):173-208.
- Krippner, G. 2011. *Capitalizing on crisis: the political origins of the rise of finance*. Cambridge, MA: Harvard University Press.
- Langley, P. 2008. *The Everyday life of Global Finance*. Oxford: Oxford University Press.
- Lapavistas, C. 2011. "Theorizing financialization". *Work, employment and society* 25 (4): 611-626
- Lapavistas, C. 2013. "The financialization of capitalism: 'Profiting without producing'". *City* 17 (6):792-805.
- Leyshon, A., and Thrift, N. 2007. "The capitalization of almost everything: the future of finance and capitalism". *Theory, Culture and Society* 24 (7-8):97-115.
- LiPuma, E. and Lee, B. 2005. "Financial derivatives and the rise of circulation. *Economy and Society* 34 (3):404-427.
- Losch, B. 2002. "Global Restructuring and Liberalization: Côte d'Ivoire and the End of the International Cocoa Market?" *Journal of Agrarian Change* 2 (2):206-227
- Martin, R. 2002. *Financialization of Daily Life*. Philadelphia: Temple University Press.
- Martínez L (2014) De la hacienda al agronegocio: agricultura y capitalismo en Ecuador (pp 123-155) in G Almeyra, L Concheiro, J Mendes & C Porto-Gonçalves (eds) *Capitalismo*

- Tierra y Poder en América Latina* (1982-2012) Vol. II. México: CLACSO-Ediciones Continente- Universidad Autónoma Metropolitana
- Marx K (1981) *Capital Vol III*. London: Penguin
- Mayer, J. 2012. “The growing financialization of commodity markets: divergences between index investors and money managers”. *The Journal of Development Studies* 48 (6):751-767.
- McMichael, P. 2012. “The land grab and corporate food regime restructuring”. *The Journal of Peasant Studies* 39 (3-4):681-701.
- McNally, D. 2009. “From financial crisis to world-slump: accumulation, financialisation, and the global slowdown”. *Historical Materialism* 17:35-83
- Murphy, S., Burch, D., and Clapp, J. 2012. “Cereal secrets. The world’s largest grain traders and global agriculture”. Oxfam Research Reports, August.
- Nardella, N. 2007. “Price efficiency and speculative trading in cocoa futures markets”. Paper presented at the AES Annual Conference, April 2–3. University of Reading, UK.
- Newman, S. 2009. “Financialization and changes in the social relations along commodity chains: the case of coffee”. *Review of Radical Political Economics* 41:539.
- Official Registry. 1980. Decreto Legislativo, Cámara Nacional de Representantes, Registro Oficial No. 113, Enero 24, 1980, pp 1-2
- Ohemeng, W. Sjo, B and Danquah, M. 2016. “Market Efficiency and Price Discovery in Cocoa Markets”. *Journal of African Business* 17, 2: 209-224
- Oomes, N. and Tieben, B. 2016. “Market Concentration and Price Formation in the Global Cocoa Value Chain.” SEO: Amsterdam Economics.
- Ouma, S. 2016. “From financialization to operations of capitals: historizing and disentangling the finance-farmland-nexus”. *Geoforum* 72:82-93
- Peralta, P.O. and Hollenstein, P., 2015. “Territorial coalitions and rural dynamics in Ecuador. Why history matters”. *World Development*, 73: 85-95.
- Pike, A., and Pollard, J. 2010. “Economic geographies of financialization”. *Economic Geography* 86 (1):29-51.
- Purcell, T.F., Martinez, E., and Fernandez, N. 2018. “The Value of Rents: Global Commodity Chains and Small Cocoa Producers in Ecuador”. *Antipode* (forthcoming).
- Russi, L. 2013. *Hungry Capital: The Financialization of Food*. Winchester: Zero Books.
- Ryan, Ó., 2012. *Chocolate nations: Living and dying for cocoa in West Africa*. London: Zed Books

- Salerno, T., 2014. "Capitalising on the financialisation of agriculture: Cargill's private equity-driven land acquisition in the Philippines". *Third World Quarterly* 35 (9):1709–1727
- Spratt, S. 2013. "Food price volatility and financial speculation". Institute of Development Studies, Working Paper 047. Future Agricultures Consortium.
- Talbot, J. M. 2002. "Tropical commodity chains, forward integration strategies and international inequality: coffee, cocoa and tea". *Review of International Political Economy* 9 (4):701–734.
- The Guardian. 2010. 'Hedge funds accused of gambling with lives of the poorest as food prices soar', accessed 05/07/2017 at <https://www.theguardian.com/business/2010/jul/19/speculators-commodities-food-price-rises>
- Troya, M. 2013. Acción colectiva y cadenas de valor estudio de caso: Cadena de cacao y UNOCACE. Tesis Maestría en Ciencias Sociales con Mención en Desarrollo Territorial y Local, FLACSO Ecuador
- UNCTAD (United Nations Conference on Trade and Development). 2016. "Cocoa industry: integrating small farmers into the global value chain". United Nations: New York and Geneva.
- Williams, J. W. 2014. "Feeding finance: a critical account of the shifting relationships between finance, food and farming". *Economy and Society* 43 (3):401–431.