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1. Introduction

Latin America and Australia have seen the best and worst of China's rise. On the positive side, they have enjoyed economic growth arising from China's unprecedented demand for their commodities. On the negative side, they have complained about currency manipulation, deindustrialisation, and threats to local food security arising from the displacement of fresh food farms by commodity plantations.

This chapter compares the impacts of Chinese demand on food security and national interests in Latin America and Australia. It begins by considering how soybean production is fuelling an expanding "commodity frontier" across South America, whose effects include rural unemployment and consequent urbanisation. It then considers recent developments in Chinese trade and investment with Australia, where growing wheat and barley exports are inflating land taxes and stimulating the emergence of community projects to safeguard food security.

The next section considers the case of Cuba, whose government insists that closer integration with China must avoid dependency by including projects that build national food security. The chapter also offers some ethnographic observations of daily life in Beijing, where rapid urbanisation has promoted community initiatives that promote healthier diets less reliant on imported commodities. I conclude with some reflections on the significance of these Latin American, Australian, and Chinese experiences for the European Union.

2. South America's commodity frontier

The Chinese government's New-Type Urbanisation Plan aims to increase the nation's urban population to 1 billion by 2025 (from just 17 million in 1978), constituting the largest migration in human history. The unprecedented demographic transformation has unleashed middle-class consumption of pork sustained by imported soy-based animal feed, as well as wheat, barley, and other commodities. For food producing

nations, balancing exports to foreign markets with sustainable local food systems has become a practical and ethical challenge.

Expanding plantations, the collapse of small farms, the intensifying application of synthetic pesticides and herbicides, and the growth of cities to accommodate displaced rural communities has become a global problem.

Latin American soy cultivation is concentrated in the Southern Cone, where it now accounts for 45m hectares, 90% of which are in Brazil and Argentina. By 2010, soybeans genetically modified for resistance to the herbicide glyphosate accounted for an average of 85% of the total produced in the region. This has permitted intensive application of this and other agrochemicals, despite their diffusion into water systems that sustain local ecosystems and communities. "A clear outcome," concludes a multilateral task force, "is the externalisation of the ecological, social and public health costs deriving from soybean production" (Catacora-Vargas *et al.* 2012).

Soy agribusiness has encroached on peri-urban land previously used for fresh food production, undermining ecological diversity and traditional livelihoods while accelerating rural-urban migration as land management becomes concentrated in fewer hands. Propelled by this process, Latin America's urban population has now reached 82% of the total, making it "one of the planet's most urbanised regions" (ECLAC 2021). Booming commodity exports have generated substantial macro-economic benefits, but the ecological, social, and territorial consequences are deepening.

The expansion of soybean plantations across the Southern Cone represents a new commodity frontier, with transformative consequences for the Atlantic rainforest in southern Brazil, eastern Paraguay, and north-eastern Argentina. Since the 16th century this area has been subjected to waves of intensive logging, gold and iron ore mining, cattle ranching, and sugar and coffee production (Dean 1995). The extension of these earlier commodity frontiers was resolutely enforced by colonial and post-colonial regimes, but neither their geographic scale nor output match those of soybeans.

The industrial success and territorial advance of soy is facilitated by new farming technologies, growing foreign investment, and neoliberal deregulation. These transformations echo 20th century adaptations in the region stimulated by US agribusiness, whose competitive advantages were unlocked by the introduction of free trade regimes. The cumulative consequences of these successive waves of commodity extraction are now evident in Brazil's two largest cities, São Paulo and Rio de Janeiro, which have absorbed entire communities displaced by agribusiness operations. Harnessing their agricultural skills in urban and peri-urban farms has become a core challenge for rural migrants, local governments, and millions of city dwellers committed to more ecologically sustainable, socially inclusive, and personally healthy food systems. There is now clear evidence that projects that bring together these actors and their agendas are strengthening Brazilian food security (Hearn 2023, Nagib and Nakamura 2020).

The new commodity frontier extends beyond South America to other food exporters, generating comparable challenges in its wake. The correlation of increasing exports with expanding plantations, the collapse of small farms, the intensifying application of synthetic pesticides and herbicides, and the growth of cities to accommodate

displaced rural communities has become a global problem that is clearly visible in Australia. South America and Australia harbour similar legacies of colonial land use and current dependency on grain exports to China, whose thirst for commodities has made it the main trade partner of both. Unlike other mining and agriculture-intensive nations, though, Australia has avoided the worst of the "resource curse".

3. Globalisation in Australia.

China's agricultural footprint extends to Australia, where grains have become the nation's fastest growing export, earning $3.5bn in 2020 (UN-Comtrade 2021). Saul Eslake (2011:145) argues that Australia is "unusual for an advanced economy" because it provides a "counterexample": manufactured goods constitute only 16% of exports while commodities underpin economic growth, as they have since colonial times. Since the turn of the 21st century, demand for wheat, barley, and metals generated by China's growing cities has sustained Australia, like its South American counterparts, through successive global crises.

Hostility towards China has been aggravated by trade tariffs imposed on Australian barley, beef, and wine in 2020.

The annual poll conducted by the Lowy Institute for International Policy (2021) canvasses public opinion on a range of issues facing Australia. In 2014, 56% of respondents agreed with the statement that the Australian government is "allowing too much investment from China", and by 2018 the number had grown to 72%. While Australians are accustomed to large Chinese investments in mining and energy, trepidation about agriculture appears to have driven the trend, with 87% responding in 2016 that they were against "the Australian government allowing foreign companies to buy Australian farmland". In 2021 only 6% of respondents – an all-time low – were in favour of investment from China. As a respondent to a *Sydney Morning Herald* survey put it, "China has polluted its waters, air and soil. They have no respect to their own motherland. Why would they care about the environment of Australia?" (quoted in Bachelard 2018). Hostility towards China has been aggravated by trade tariffs imposed on Australian barley, beef, and wine in 2020. While farmers have temporarily offset China's tariffs by diverting harvests to Saudi Arabia and India, their long-term strategy remains dependent on Chinese demand.

The 1788 arrival of the First Fleet in Botany Bay and Port Jackson (now Sydney Harbour) initiated a process of territorial dispossession that, like as in South America, fractured First Nation connections with land and food to lay the foundations of industrial agriculture and mining. Of these extractive pursuits, agriculture's social and territorial dimensions are more visible, publicly exposing the human and ecological consequences of 21st century globalisation. Loss of crop diversity, intensification of chemical inputs, and resulting demographic and environmental impacts again reveal themselves as hallmarks of the new commodity frontier. Around Australia's fastest growing city, Melbourne (population 5.1 million), it is striking that – as in Brazilian cities – peri-urban farms are disappearing as new suburbs extend outward and surrounding agribusiness operations encroach inward. Focused squarely on commodity exports, the state and federal governments appear unconcerned that the wheat, barley, and canola plantations edging toward the city's north and west cannot

fulfil local demand for fresh food. Rising land taxes leave little hope for vegetable and fruit farmers, whose capacity to supply the city is projected to fall from 41% of demand today to 18% by 2050 owing to declining availability of affordable land and the Agriculture Victoria Strategy's focus on exporting to Asia (Carey *et al.* 2018:67).

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It falls to social enterprises and non-profit organisations to defend the viability of Australia's small farms. Among these is CERES Fair Food, which now supplies more than a thousand Melbourne families each week with fresh fruits and vegetables sourced from around one hundred local growers, creating jobs and protecting land from real estate and agribusiness development.

Fair Food's director, Chris Ennis, describes the initiative as "a tool for public education about the social and environmental history of Australia's food system" (interview, September 17th, 2018). As he writes in a CERES newsletter, "Over the past 12,000 years, the age of agriculture, most of us were farmers. In Australia in 1900 one in seven of us were farmers, today only one in 33 grows the food we eat" (2012:6). By locating his project in the long run of history, Chris provides a broadly appealing narrative that has attracted support from small farmers, retail businesses, online customers, and local governments. As the intermediary at the heart of this network, his nascent alliance made its mark in Moreland City Council's A$34,000 (US$25,000) *Food System Strategy*, the first government-funded framework in Australia to incentivise productive use of urban arable land.

As Fair Food and other projects gain traction at the grassroots, a surge of interest from foreign agribusiness investors has evoked impassioned counterreactions. The presence of Chinese finance and companies in the sector is generating objections not seen with mining, gas, oil, and other extractive industries (Hearn 2013). In 2021, amidst warnings of possible environmental damage, political interference, and arrivals of Chinese workers, the Australian government voided the State of Victoria's agreement to join China's Belt and Road Initiative. The government's view that the initiative is not consistent with Australia's foreign policy reflects concerns about its implications around the world.

Waves of enthusiasm and trepidation about China reflect a decade of allegations that the emerging superpower's pursuit of food security constitutes a "land rush" among Chinese elites who "want a slice of rural Australia" (Cranston 2012). Similar language has emerged in Brazil, where according to former Minister of Finance Antônio Delfim Netto, "the Chinese have bought Africa and now they're trying to buy Brazil" (Estadão 2010). Underpinning these allegations in both countries are simmering apprehensions about the relationship between food, land, and sovereignty. Seized on by sensationalist media and politicians, these apprehensions fuel a simple argument: China's need for food commodities has prompted agribusiness investments that threaten to covet farmland and compromise national sovereignty. An instructive contrast to this argument arises from Chinese engagement with Cuba, where colonial and postcolonial dependence on the sugar industry sparked the Cuban Revolution of 1959 and disputes about the balance of dependency and sovereignty ever since. Even more than in Brazil and Australia, China looms large in Cuban attempts to find this balance.

4. Cuban counterpoint

The eminent Cuban ethnologist Fernando Ortiz argued in 1940 that three centuries of national dependence on the sugar industry represented a "counterpoint" with the cultivation of tobacco. Beyond the economic contrast of sugar's stellar success as an industrial commodity compared to tobacco, he proposed a series of related cultural distinctions. These foregrounded sugar's reliance on enslaved Africans, some 780,000 of whom were forcibly transplanted to Cuba under Spain's colonial dominion, and the industry's mechanisation under US control after 1898. The extractive focus of both regimes made Cuba the world's largest sugar exporter, instilling in Ortiz an acute sensitivity to power relations.

Toward the end of his life Ortiz saw his nation's economic dependence on the United States, entrenched by the sugar industry, give rise to the Cuban Revolution of 1959 led by Fidel Castro. He would have also observed that the resulting exchange of Soviet oil for Cuban sugar was generating a new foreign dependency. Despite the Castro government's commitment to maintaining the sugar harvest, mass mobilisation of work brigades could not compensate for the absence of US demand and infrastructure investment. Output declined, but the dynamics of dependency persisted until the Soviet Union collapsed in 1989.

Since the end of the Cold War, the Cuban government has pursued closer relations with China, but unlike their Soviet predecessors, Chinese strategists are determined to avoid the economic and political risks of clientelism. Therefore, although Chinese investment is helping to revitalise Cuba's sugar export industry, the deepening alliance is also building capacities – under the banner of the Belt and Road Initiative – to produce corn, rice, and other staples for local consumption. The emerging paradox of local interest and foreign influence reflects a breakdown of power dichotomies reminiscent of Ortiz's counterpoint. As Cuban officials and their Chinese counterparts pursue what they call "mutually beneficial" 21st century socialism, the counterpoint of dependency and sovereignty continues to shape the island's history (Hearn and Hernández 2021).

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Jiang Zemin visited Cuba in 2001, pledging to support the production of sugar for sale to the Chinese state, but also rice, corn, and other staples for Cuban consumption. Secured during President Hu Jintao's 2004 and 2008 visits to Havana, Chinese tractors, irrigation, storage facilities, and other agricultural inputs have since appeared across the island. To provide electricity for the Jesus Rabi sugar mill in Matanzas and its surrounding population, China Eximbank has since financed a biomass power plant that consumes residue from the mill. Construction, engineering, and initial operations were managed by Shanghai Electric, whose 325 technicians worked alongside 250 Cuban counterparts. The plant is intended as the first of 18 planned by 2030 to operate alongside sugar mills across the country (Pérez Sanchez 2020).

Commercial agreements between Cuba and China have been accompanied by advice about stimulating food production for Cuban households rather than for export, a goal borne out in cooperation through China's Belt and Road Initiative. Among the projects underway

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is the construction of a facility in Pinar del Rio province by the Chinese enterprise Muyang, which aims to process 37 tonnes of rice per day for consumption in Cuba (Hernández Cáceres 2020). Unlike investments in the sugar industry, such projects aim to build the island's domestic food production capacity, supporting the Cuban government's food sovereignty narrative even as the influence of Chinese firms on the island deepens. Criticism of this influence emanates mainly from conservative US think tanks and commentators, who allege, for instance, that cooperation in sugar and rice production, oil refining, and telecommunications constitute attempts "to prop up the Cuban regime" that ultimately put China "on the wrong side of history" (Lazarus and Ellis 2021).

For Cuba, Australia, and Brazil, the need to build alliances that support sustainable food systems is becoming more visible. Chinese demand for commodities is an important driver of change, but transformations within China are raising domestic challenges that resemble those faced by its suppliers. Far from being the monolithic command economy invoked by opportunistic politicians and media, China is home to a diverse range of actors who are emerging to shape their own local food systems.

5. Unity and diversity in Beijing

Rejecting simplistic arguments that China is undermining Brazilian food security, Gustavo Oliveira (2021) writes that, "The issue is not whether Brazil is economic prey to China, but rather whether Brazilian and Chinese peasants and workers are prey to domestic and transnational corporate elites and the state actors who enable and advance their power and profits." From this perspective, the ecological and social consequences of unbridled agribusiness arise not from the actions of the Chinese state, but rather from the unjust transformations of land and labour fuelled by capitalist modes of production across these contexts. The implication is that urbanisation is posing challenges to local food systems within China that have much in common with those emerging in Australia, Brazil, and Cuba.

At my host family's dinner table in Beijing, where I lived for a year in 2007-2008 and again in 2015, urbanisation's impact on food was plain to see. As a *de facto* member of the Wang family in the suburb of Pu Huang Yu, I was required to follow a daily routine: walk the dog with the family at 8am, jam into the subway station by 9am, and most importantly be home for dinner by 6.30pm. For Mr Wang dinner time was a ceremonial occasion. Placing the large glass bowl in the centre of the living room table, he would announce the dish he had prepared that day for his wife, daughter, and me. We enjoyed lamb, beef, and chicken almost every evening, but pork was his specialty, evident in the flair he added when exclaiming "京都排骨!" (Kyoto pork ribs!). I had first met Mr Wang while living nearby in 2007, shortly after he moved his family from a corn farm in Hebei province, on the outskirts of Beijing, into the cramped high-rise apartment. Eight years on, even without the rent I was paying, his job as a clerk in the administration office of his residential complex (*hua qiu*) sustained a diet that a decade ago would have been unthinkable.

It is difficult to fully appreciate the deepening socio-economic importance of pork in China. The OECD calculates that Chinese pork consumption per capita increased from 23.9kg in 2000 to 30.3kg in 2018, stimulated by

"higher incomes and a shift – due to urbanisation – to food consumption changes that favour increased proteins" (2021). To diversify consumption, the government has promoted mutton and other sources of protein since 2018, but pork remains the clear favourite. As the New-Type Urbanisation Plan increases China's urban population from 850 million in 2014 to 1 billion people by 2025, demand for pork is set to grow. To sustain the expanding herds requires soybeans processed into animal feed, forming a global chain that stretches from Mr Wang's dinner table to South America's soybean plantations. As noted, the associated commodity frontier extends to Australia's wheat and barley fields, which provide daily carbohydrates for millions of urban dwellers like Mr Wang, and to Cuba's sugar plantations as gleaming Chinese tractors roll in.

The need to develop locally sensitive approaches to food security will continue to influence Chinese interactions with Latin America and Australia.

To Beijing's northeast, an hour's bus ride beyond the last subway station at Fengbo, a progressive community is forging an alternative peri-urban future. Shared Harvest was founded in 2012 as an independent Community Supported Agriculture (CSA) cooperative, and over the subsequent five years it grew to support over 40 farmers on 36 hectares of government-awarded land. Leaving behind stagnating villages, its members have avoided the precarity of the city's construction, factory, and informal sectors. Instead, when I first visited in 2015, they were using their knowledge to produce organic pears, pumpkins, corn, sweet potatoes, okra, mushrooms, poultry, and pork for delivery to over 800 Beijing families each week.

Shared Harvest's director, agricultural scientist Dr Shi Yan, describes her work as cultural conservation: "By providing these jobs we offer a dignified occupation that leverages the community's skills and ancient connections to land" (interview, July 31st, 2017). Harnessing the capacities of displaced farmers, she is an intermediary who puts their food traditions at the centre of her work. Shi presents Shared Harvest to local officials as a beacon of cultural continuity in the face of urbanisation, and in return they have provided a methane bio-gasification plant to produce power and fertiliser, and have extended her lease until 2027. The initiative's success has since inspired the creation of over 1,000 community farms across China (Lyu *et al.* 2020). Many of these are operated by Shi's former students, and all of them are actively building public and private sector alliances to advance small-scale, non-industrial approaches to agriculture.

Urbanisation has played out differently for the Wang family and for Shared Harvest's migrant workers. Both moved from Hebei's farmlands to Beijing's sprawling suburbs, but while the former relies on food chains sustained by foreign commodities, the latter feed themselves and their urban customers with local produce. The experiences of both demonstrate that the need for more locally oriented food systems is as pressing in China as it is in Brazil, Australia, and Cuba.

6. Conclusion: insights for the EU

The above scenarios suggest that grassroots projects can be as transformational as global agribusiness. Recognition of community agency is easily lost in debates about international trade and investment, especially when framed by politically heated accusations that China's

growth is generating new dependencies among food producing nations while undermining their sovereignty.

The need to develop locally sensitive approaches to food security will continue to influence Chinese interactions with Latin America and Australia. The European Union is well placed to draw insights from this process, for instance through the annual EU-China and EU-Brazil summits. These summits afford opportunities to establish a trilateral EU sub-dialogue with China and Brazil, which would furnish the EU with insights into Chinese approaches to food security, technology transfer, development financing, and other pertinent issues. It would also facilitate discussion of objectives that China wishes to pursue with the EU – and is already achieving with Brazil – such as technological cooperation, progress toward more open trade, and diversification of investment.

Australia's agriculture relations with China are also relevant for the EU, particularly regarding foreign investment in farmland. As noted, the capacity of Melbourne's peri-urban zones to feed the city is expected to decline to 18% by 2050, and other Australian cities face a similar predicament. There is a pressing need to encourage investment, both foreign and national, into localised fresh food production for domestic markets rather than simply into the export commodity sector. Safeguarding national interests has figured more explicitly into Cuban approaches to China, in part because of the island's experiences with European colonialism and subsequent dependency on the US markets. While liberal democratic states cannot easily emulate Cuba's requirement that foreign agriculture investors build local food security, the EU (and others) could consider tax and other incentives for projects that prioritise community benefit.

The capacity of localised production to build more resilient and secure food systems is widely recognised, and this article offers a glimpse of the reality on the ground. Locally oriented projects are helping to address globally relevant challenges associated with climate change, urbanisation, and food security. As these issues become more prominent at the G20, the UN, the BRICS, and other multilateral fora, the EU is well positioned to both support and learn from foreign experiences.

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