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China's Belt and Road Initiative, Marine Transportation and Energy Infrastructure at Sines, Portugal and Piraeus, Greece with the 'Athenian Riviera' Mass Tourism Gigaproject

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ABSTRACT
This paper provides a critical assessment of China's Belt and Road Initiative (BRI), in general, as an exercise in unsuccessfully controlling the contradictions in capitalism of under-consumption, on the one hand, and over-accumulation, on the other. It further analyses the political tensions surrounding the implementation of two spatial planning gigaprojects associated with BRI. The first account focuses on the major Port of Sines, Portugal, acquired in 2011 by China Three Gorges (CTG) which houses an energy and containerization terminal at the end of the New Silk Road variant of BRI. The second account concentrates on the huge expansion of the Port of Piraeus, Greece, which was acquired by China's State-Owned Enterprise COSCO in 2016. This has been accompanied by major Chinese, EIB and other global construction investment in creating the 'Athenian Riviera' as a super-yachting, mass and luxury tourism axis along the Attiki peninsula. Theory underpinning the deeper understanding of the underlying patterns of 'What's Going On?' with these developments takes the form of the 'assemblage' perspective which enables identification of 'blockages' in spatial economic development as well as mechanisms which facilitate institutional and agentic 'desire' for such projects.

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1. Introduction

This contribution involves study and analysis of a new kind of global cluster different from the kind of international cluster that Belussi (2018) has written so ably about. This has two forms: the first has cluster incumbents as an SME (small- or medium-sized enterprises) ecosystem, that through merger and acquisition backwardly integrates with a multinational enterprise or enterprises (e.g. from production backwards into a global distribution value chain – classically the Montebelluna sportswear cluster – or Luxottica eyewear in Barberini, Abruzzo in Italy; also to some extent in biotechnology as sectoral industrial clusters; Cooke 2002; Cooke et al. 2006), Alternatively, the

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multinational is the cluster-animator and induces the ecosystem of cluster incumbents to become dependent or semi-dependent on the cluster (e.g. tax havens; auto-clusters; IT platform clusters; Gawer 2009) both locally and globally. But the kind of cluster of interest here has some slight affinity with the latter more than the former as represented in, for example, the Tesla 'assemblage', which has been outlined in the literature (Cooke 2020; Cooke 2025 in Wixe, Karlsson, and Andersson 2025) and is only sketched in below.

But it is also found in other Gigaprojects e.g. the Nordic Battery Belt stretching from Mo-i-Rana in Norway, through Skellefteå (its key firm, Northvolt currently filing for bankruptcy; Partridge 2025) in northern Sweden, to Vaasa in Finland that country's 'Lithium Province'. Recently, however, its Northvolt *animateur* suffered bankruptcy after its initial VW and Goldman Sachs investments joined by Volvo made as the European lithium battery market faltered in the 'first to market' contest with China. The geographical usage of 'belt' instead of cluster is redolent of the ambitions of the Chinese 'Belt and Road Initiative' (BRI) in its global scale and policy intent. In electric vehicles (EVs), they have stolen a march on their two key continent-wide rivals (the US and Europe) such that the Biden administration in May 2024 (and subsequently Trump 2 administration in early 2025) raised the tariff on imported Chinese EVs to the US from 25% set by the Trump 1 administration to 100% (raised yet again by 10% in Trump 2), as testimony to American neo-protectionist interests for its lagging 'green' industry. Also, threatened were future protections worth $18 billion against Chinese imports of lithium batteries, rare minerals, solar cells, semiconductors, metals and protective medical clothing. Many of these have been the apotheosis of globalized, especially Chinese, imports to the US. We may briefly sketch in also the connective tissue of the Chinese first-mover advantage in EV production and its support for a total EV supply chain. The latter used to extend to a global, especially American, ecosystem of advanced silicon chip suppliers, notably Nvidia until those value-chain flows were earlier blocked by protectionist measures against exports to China on security grounds, also during the Trump administration. Now Intel is expected to establish its latest advanced chip facility in Kildare, Ireland and was seeking $11 billion from US private equity fund Apollo Global Management to assist its mega-funding. This was alongside the Biden administration offer of $8.5 billion in direct funding and $11 billion in loans to Intel through the CHIPS (Creating Helpful Incentives to Produce Semiconductors) and Science Act. This was in 2022 a $280 billion authorization of new government funding to boost US domestic research and manufacturing of silicon chips to strengthen and enable the US to compete against China and Taiwan, their rivals as the largest global semiconductor manufacturers.

Accordingly, our perspective moves in scale from the typical local interaction focus of the cluster to the supralocal which necessitates a more pronounced emphasis on infrastructural and integrated linkage of local and regional clusters at the global level. These might appear empirically as linear (as in the 'clothes-line' metaphor) or as a 'starry-night' and more diffuse constellation. To clarify, this thinking further requires appropriate theoretical representation not only capable of encompassing macro-institutional systems but also human agency that may foster spatial economic development, or importantly, its blockage. Raising this ethical dimension, focuses the desirability of shading the means by which intentions and outcomes differ. Thus, 'assemblage theory' professes to be uninterested in outcomes even if they are biased, resulting in socially divisive and unevenly or unequally distributed outputs or outcomes. But geographical growth and distribution are intentional policy interventions to achieve more equal and less spatially uneven results. Consequently, we make clear that the so-called value-neutral position is morally untenable where the starting conditions are socially unjust. Our focus in this narrative will be upon instances of 'assemblage' thinking in China's BRI as a new kind of spatial development policy that surpasses conventional regional development policy in its global reach and inter-regional intent. In investing massive amounts of capital on, mainly, infrastructure policies in multiple jurisdictions we will see the deeper structures of China's attempt to enlarge its markets, usually for the greater benefit of Chinese economic hegemony. In simple terms, BRI relates to China's deep history of pioneering trade to the West by virtue of its exports of various commodities, notably textiles, especially silk which was transported along Silk Roads which formed development belts at transhipment points and commercial nodes. In the modern era, BRI seeks to reprise that development model by linking such nodes digitally and analogically along railways, airways, oceanic shipping routes and ports to and from centres of market demand for Chinese and Western manufactured goods. Moreover, they make huge loans through public and private domestic and recipient banks to host recipients of such developmental aid and provide investment vehicles and expertise to plan and construct the infrastructure and facilities. As we shall see this is criticized as a modern form of neo-imperialism which is widely condemned for causing recipient countries and regions to become supplicants to a hegemonic 'debt trap' confronting sovereign states to the interests of China in the final analysis. This paper gives some instances of developmental intentions being more than met where 'the price was right' for acquired assets (as with Sines in Portugal and Piraeus in Greece, owing to the EU debt crisis which forced privatizations and fire-sales of public assets) to BRI agencies. But instances are also mentioned where intentions have not been matched by outcomes, leaving recipients suffering 'debt trap' results from failed investments.

2. Issues with assemblage

An established theory of development which rests on the concept of 'Assemblage' has been rather underestimated thus far in evolutionary economic development analysis. More recently, its virtues have been re-discovered, as well one of its key imperfections which is easily remedied – its 'amorality'. Among its virtues is its representation of complex reality without resorting to such devices as cellular automata, by treating it partly as an 'abstract machine' with both structural and agentic – otherwise 'structurationist' – features. It is therefore dynamic, non-linear and particularly useful for identifying blockages to development as much as their supplanting. Its key imperfection is its 'amorality' treating blockages and their supplanting with disinterest which, given its key interest in development is counter-intuitive as well as contradictory (see Cooke 2022). But actually it is somewhat resonant of evolutionary analysis which can have downward as well as upward lines of trajectory. A possible cause of its somewhat lukewarm reception in evolutionary work is its key 'idea' of the mobilizing force for human action or 'agency' as the 'immanent' *desire* for appropriation of wealth, territory and power over people.

Thus more mainstream characteristics like 'competitiveness' or 'cooperativeness' as human natured motivations, are subsumed as secondary impulses. However, Deleuze and Guattari (2004) – assemblage's originators – follow Marx in proceeding from the abstract to the concrete. E. G. 'the state is first – an *idea* – only later (in history) a variable 'structure of authority'. De Landa stresses the concrete over the abstract. Accordingly this is criticized as 'naive realism' in De Landa's (2019) 'New Materialist' variant of assemblage theory, which totally eschews 'desire' and concentrates only on the 'abstract machine' apparatus of assemblage theory and methodology. The 'abstract machine' consists of all the human and non-human elements comprising the 'assemblage' like the elements of an energy generation and distribution system of a country or region, or a national health service, transportation system or education system each with its cluster nodes composed of laboratories, factories, financial sub-systems, flows of goods, services and customers along with the key management 'agents' of the distinctive administrative and organizational structures. The element of 'desire' lies in the political economy 'culture' which supports with interests, policies and priority-powers – the maintenance, sustaining and reforming impulses that express their 'agentic' will to power over the diverse forms of activity in which they are engaged. But this 'desire' element is – as noted – missing from the 'assemblage theory' of one of its prime exponents, Manuel De Landa. Buchanan's (2022) critique of De Landa's position, saying he wrongly reverses the logic of 'assemblage method'. Thus, he further criticizes De Landa's reversal of the actual–virtual relation, mistaking the (concrete) 'bits and pieces' (of power, or the state) for the 'actual'. By contrast, for Deleuze and Guattari, it is the 'structure of authority' that is actual and 'bits and pieces' that are virtual. A critique of Buchanan (2021) is he says the same thing in three different contradictory ways: (1) Deleuze and Guattari (2004) are somewhat Foucauldian in their emphasis on 'discourse' over the material realities of class oppression in capitalist society and (2) Thus, they are also (or Buchanan) are risking 'Naive Idealism', in which (3) they risk reversing Marx. However, the spatial imagination can easily grasp 'assemblage' as a topological concept, while see(k)ing actual causes – power, wealth, territorial and other desires as 'causal'. Accordingly, this has to be realized through examining the 'bits and pieces' in the system's 'abstract machine'. However, that is itself impelled primarily by 'desire' as the will to world historic and charismatic impulses, such as, for example; discrimination, exclusion, colonialism or imperialism (e.g. Spain's imperial mission for (1) 'Gold, (2) God or (3) Glory' in that order). It could be said that 'Make America Great Again' (MAGA) is a prime instance of 'assemblage' by 'desire' with its neo-imperialist (or even neo-feudal – see next para.) intent to acquire Denmark's sovereign territory of Greenland, acquire Canada, take back the Panama Canal, and redevelop the Gaza Strip in the contemporary era. Marco Rubio's first 'success' as Trump administration Secretary of State, was to order Panama's president Mulino to depart from China's BRI and make way for the Blackstone-led acquisition of the canal entry ports of Balboa and Cristobal previously owned by Hong Kong's CK Hutchinson (Guardian Staff 2025).

3. A swift test for assemblage methodology

We come now to some exemplars of the work of applying our chosen approach to a pair of case studies which show the power of 'assemblage' thinking by revealing deeper, often single or a few 'agentic' actors or players armed with – essentially – neoliberal (or techno-feudalist 'cloud-rent' from 'platforms'; Varoufakis 2023) modes of morality as the driving force of their motivation, management style and prioritization of wealth accumulation in real-world situations. Later, in the paper, this way of conceiving complex spatial development intentions, outputs and outcomes of BRI and its agents are attempted. Assemblage theory and methodology facilitates complex systems analysis with a view to identifying development blockages or failures of policy design enabling their removal or mitigation. It is cognate with pattern recognition which is an *output* and deep structures and agents which may be termed an *outcome*, which can in major cases, result in serious legal consequences. We have essayed such an exercise in the case of the Californian wildfires (in 2025 also, SoCal Edison power lines for Los Angeles County wildfires) which caused large numbers of fatalities as well as wildlife and biomass destruction. The blockage was neoliberal regulation and auditing failure to criticize 'value engineering' which justified reduction of expenditure on safety and maintenance of equipment, but vastly increased stockholder (including management) returns by Pacific Gas and Electricity, the regional energy supplier (Cooke 2024). Now, we propose to sketch-in an even worse neoliberal catastrophe in terms of lives lost by the same *desire* to cut safety and labour costs, transferring the savings as profits distributed to the company's stockholders.

This test is methodologically influenced by 'dark triad' and 'light triad' parameters of discerning the extent of either psychological trait in individual or cultural practice. This is a set of psychological characteristics which differentiate malign from benign intentions. 'Value engineering' is shaded as 'malign' because it ultimately values profits above valuing people where their safety and ultimately their lives, as customers, are concerned. It records both institutional and individual traits and alludes, accordingly, to aspects of both 'structural' and 'agentic' causality and explanation. The following brief narrative focuses on the recent history of the Boeing 'assemblage' and its many technical disasters which have had lethal consequences. Data are drawn from various technical, organizational and administrative accounts of Boeing's catastrophic corporate management, as ably summarized by Blakeley (2024). This turns out to be the apotheosis of 'disaster capitalism' (Klein 2007) by the active desire of a reckless corporate 'agent' to implement the neoliberal playbook of cutting aeroplane safety budgets while augmenting corporate shareholder portfolios. The first sign of disasters to follow began with Boeing's new 787 Dreamliner plane, whose delivery was lengthily delayed, exceeding the budget estimate and revealing numerous technical and design errors. One such defect was that the Dreamliner's batteries caught fire, forcing the entire fleet to be grounded.

Inquiries revealed that Boeing's long tradition of safety-consciousness had been sacrificed to a cost-cutting culture during the early 2000s. This coincided with the 'agentic' arrival from the bankrupted McDonnell Douglas, which had been saved from oblivion by its merger with Boeing in 2003 at US federal (Department of Defense) request and funding, by Harry Stonecipher. He was an earlier alumnus of General Electric (GE) under corporate 'financializer' Jack Welch whose cost-cutting included disposing of toxic chemicals in the Hudson River. The duo's strategy for Boeing was 'wilful inattention' followed by 'creative destruction' (Thelen and Mahoney 2010). Thereafter, the neoliberal 'cultural revolution' was heralded by denigrating Boeing's hitherto much-vaunted expert engineers and extolling senior management by bestowing upon them responsibility for a radical cost reduction strategy. This included undermining Boeing's trade unions and outsourcing their work to contractors. The new 737 was to cost 40% less than the 777 as developed in the 1990s and cost 60% less than it took to build by 2003.

This was achieved by enlarging the plane from making the engines bigger thus enabling more passengers per mile over a longer distance. Thus profitability was prioritized over passenger safety. The new plane – the 737 MAX – had enormous engines. Their location towards a more forward position on the wing was to stop then scraping the tarmac. However, it caused successive design problems which had the effect of rendering the plane 'dynamically unstable'. Thus, if the nose tilted up, the implications of the more forward design position on the wing engine re-location would lead it to tilt up even more. To save re-design costs management opted for a software fix to push the nose back down again – automatically, i.e. no pilot intervention. Furthermore, to deny manual intervention, one rather than two correct angle of glide (AOA) sensors was to activate the software 'patch'. But if one sensor was faulty and 'disagreed' with the other, it would automatically nose-dive with no possibility of pilot intervention. The inevitable occurred – twice. On 29 October 2018, a Boeing 737 MAX flight from Jakarta crashed into the sea killing 181 passengers, six cabin crew and two pilots. Then, on 11 March 2019, an Ethiopian Airlines 737 MAX flight from Addis Ababa crashed with 157 victims. Both subsequent inquiries showed a glide path (AOA; Angle of Attack) sensor had malfunctioned causing fatal nose-dives in both instances.

Where, it might be inquired, was the US aviation regulator – the Federal Aviation Authority (FAA) – during the disastrous unfolding of these events? Having been 'hollowed out' by successive post-Reagan administrations, it transpired that the FAA had certified the plane a year early to enable Boeing returns to meet profit targets. However, Boeing employees and independent industry experts knew it was not fit to fly. The regulator certified the 737 MAX knowing it did not meet current safety standards. But this occurred in expectation that a further round of deregulation was due in 4 weeks. Later it transpired that Boeing's lobbying for early certification, its 'shoddy engineering' and the FAA's 'shoddy regulation' led the company in January 2021 to enter into a deferred prosecution agreement (DPA) in connection with a fraud case filed in the Northern District of Texas. The criminal information charged Boeing with one count of conspiracy to defraud the United States. Boeing further entered into an agreement with the Department of Justice to pay a total criminal money amount of $2.5 billion to resolve the criminal charge related to a conspiracy to defraud the Federal Aviation Administration's Aircraft Evaluation Group (FAA AEG). This was in connection with the FAA AEG's evaluation of Boeing's 737 MAX aeroplane. The deep structures are of first, the US state, Boeing's lobbying and fraudulent collusion with the regulator and the US Department of Defense that, second, wanted and brokered the merger between Boeing and McDonnell Douglas whose former, third, chief executive Stonecipher was the 'desiring agent' of the 'assemblage' that ultimately bears the blame for the 737 MAX disasters. A new neoliberal management created a malign culture that privileged; cost-cutting, outsourcing, downgrading engineering safety and maintenance, with inept 'hollowed out' deregulation that cost hundreds of lives. This enabled Boeing to maximize profits and augment shareholder returns within this particular 'dark corporate triad'.

4. China's BRI in Europe

Although China's BRI was initially seen as an Asian 'developmental' project, seen primarily as meeting China's economic and political interests, it has begun to have notable impacts on the regional space economies of Europe. Thus, the Council for Foreign Relations (CFR) task force report (Hillman and Tippett 2021) showed that two-thirds of EU member states had by 2021 registered as formal BRI partners. In this section, indicating where important new investments have occurred, particularly in European, but also other port-related infrastructures, we unearth the scale, scope and political ambitions for BRI in China's quest to displace the West as the global economic kingpin. Like much of China's focused political strategy outwards from Beijing, it rests on a judo-like approach to leveraging the superior weight of the opponent to achieve a winning position. In research conducted around 2010 by the author (Cooke 2012), this strategy became apparent with regard to the demise of the Nordic, and especially Swedish telecoms industry. Telecoms corporate leader Ericsson, in particular, had global reach until approximately that date, notably in Latin America and Asia. However, China incumbent Huawei's emergence as a global competitor offering lower cost for modern switching gear and the software to support it, de-stabilized Nordic predominance in domestic and overseas markets, first for mobile telephony (Sony-Ericsson), later for telecoms switchgear (ST Ericsson). This was the judo strategy in action; Huawei leveraging its market on Ericsson's newly perceived future weakness.

As different branches of the Ericsson corporation became hollowed-out alongside mobile telephony service suppliers (Telenord and Telia), in mobile telephony, switchgear and cabling activities (ST Ericsson), redundancies occurred in the major Swedish centres. Experienced engineers were first recruited in Stockholm's Kista science park by Huawei, who had located their regional office there, then Gothenburg, where 250 engineers were swiftly re-hired, again by Huawei, followed by an equivalent number in the Lund R&D and componentry facility. Thereafter, alongside Huawei, other foreign direct investors (e.g. Qualcomm; Samsung) followed suit and overcame the defences of state regulators and indigenous suppliers of Nordic telecommunications networks (Cooke 2012). However, in 2022, a Swedish appeals court upheld a ruling by a lower court that banned Huawei and ZTE (the second Chinese carrier) from selling 5G equipment in the country on strategic security grounds. Similar sanctions were also brought to bear by all other Baltic states as well as the US, UK and others prior to this decision. Not all EU member states necessarily complied swiftly with such restrictions. Germany subsequently did so after reflecting on its security being affected by the explosions at its Nordstream gas pipeline to Russia, with a decision to strip Chinese critical components from the nation's 5G core network by 2026. These events signified the start of 'de-globalization' as successive states dis-connected their desire for cheap goods from China's 'world factory'. The Biden administration continued the protectionist posture with the CHIPS ban on EV semiconductors in response to its latter-day 'China Syndrome'.

Hence, we see how China's exploitation of weakness towards the counterparties in their infrastructural investment strategy works. Undermine the opposition's market with cheaper than normal prices then, when the opponent is suffering market contraction, pick up the damaged remnants in a buyer's market. We will shortly see how this worked with port facilities as it did with telecommunications infrastructure. The playbook for this strategy evolved with the Sri Lankan link-up with BRI for port development in Colombo. It was a key project to build a transhipment port at Hambantota in the early 2000s. It was expected to become the country's second-largest port after Colombo and financed by three fixed-interest rate loans from EXIM Bank China amounting to $1.4

billion. However, despite construction being managed by two China state-owned enterprises (SOEs) – China Harbour Engineering and Sinohydro Corporation, the project suffered delays and incurred financial losses putting strain on Sri Lanka's public finances. Critics saw this as an example of unprofitable infrastructure investment and China's so-called debt-trap diplomacy. Three things supported this concern. First, the Chinese SOEs were given a 99-year lease and a controlling interest on the port's management in exchange for rescuing Sri Lankan foreign exchange reserves with a $1.12 billion risk-sharing agreement. Second, management was moved from the initial SOEs to China Merchant Port Holdings Company Limited with a view to diversifying port-related facilities such as industry, ship-repairing and warehousing. Third, this entity would meet the 'desire' to increase container traffic to 16 million 20-foot equivalent units (TEUs). Urban development at Colombo Port City was a further Chinese project being built adjacent to Colombo's financial district and also built and managed by China Merchant Port Holdings Company's subsidiary, China Communications Construction Company, on an investment of $1.3 billion.

These have raised critical issues regarding Sri Lanka's experience of such 'leverage'. First, the aforementioned Chinese debt-trap; second, a trade deficit with China; and third, limited domestic spillovers from Chinese investments. On the first issue, the sale and lease back was conditioned by losses incurred by the recipient. Second, as in other recorded instances elsewhere (notably Africa), Chinese infrastructures are investments conditional on sourcing imported capital equipment, intermediate goods and labour from China. As a case in point, Sri Lanka's Southern Expressway to Colombo was built using significant imports of Chinese road construction equipment, materials and labour. Finally, research shows there to have been limited indirect domestic spillovers in terms of sectoral shifts, exports and employment from Chinese infrastructure investment (Hillman and Tippett 2021). A partner at a North of South Capital Journal report (Waterhouse 2022) estimated that nearly 60% of China's overseas loans are now held by countries in financial distress, versus 5% in 2010. That comes at a time when China is experiencing bottlenecks over bad domestic property debts, meaning banks have limited capacity to take on new risks. Not all port projects along existing maritime routes can yet be considered successes: e.g. the Sri Lanka port of Hambantota is hardly utilized (Waterhouse 2022). It was announced in July 2024 that the EU is seeking to claw back up to €100 million from the Cypriot government after a Chinese-led consortium abandoned a gas import terminal project that is now being investigated for corruption. Brussels is seeking explanations from Cyprus on the EU funding for the gas terminal that state-owned China Petroleum Pipeline failed to build (Cruz 2024).

5. China's BRI in Sines, Portugal

According to Céu Pinto Arena (2022), Portugal's response to its Eurocrisis following the Great Financial Crash in 2007–2008 was to confirm its focus on China as a source of 'developmentalist' funding after its somewhat harsh treatment by the European Union and to some extent its Atlanticist (US) partnership history. The neoliberal press, in the shape of the Economist (2018), was seen to be particularly discourteous with its reference to Portugal becoming China's 'aircraft carrier into Europe' following its international 'Troika' bailout in 2011. Moreover, the Chinese stepped up during Portugal's crisis and bought Portuguese sovereign bonds at a time when other international traders were unwilling. Later, there was more criticism with the contentious issue being the sale in 2011 to SOE China Three Gorges (CTG) of a 23% stake in the leading Portuguese utility company, Energias de Portugal (EDP), the electric power generation, supply and distribution company in Portugal with interests also in the gas and renewable energy industries. In 2012, CTG then bought a 25% stake in Portugal's state-owned power grid operator REN (Céu Pinto Arena 2022). Despite a growth in publications analysing Portugal's multidimensional or 'multi-vector' foreign policy, there has as yet been relatively little published on the economic development associated with China's BRI ambitions for Portugal and relatively few references to the role of the south-western port of Sines. This location in Alentejo has grown significantly in recent years to be Portugal's second port and largest container port. Wejchert (2021) rather dramatically saw Sines as an economic battleground for Chinese and US influence in Europe. Accordingly, the increased strategic significance of the port and its planned expansion attracted Chinese investment interests in the context of the BRI, to which the US responded with competing proposals. This contest is seen as revealing China's ambitions to transform the port into a key Atlantic outpost of the BRI. The future outcome of the port of Sines will serve as a litmus test of the EU's ambition too, and ability to pursue *strategic autonomy* amid a new era of superpower competition.

The port of Sines became operational in 1978 as part of an ambitious, Portuguese state-led industrial project that aimed to transform the resort city into Portugal's national growth centre, and simultaneously the developing southern region of Alentejo. Sines has been transformed into the main Portuguese oceanic port. It accounts for 1.5% in the Portuguese economy, 2% of total employment and represents more than 56% of total container handling capacity in the Portuguese ports. Events in Latin America such as the doubling of the Panama Canal's cargo capacity (aided by China's BRI acquisition of the two entry ports, one by COSCO at the port of Cristobal on the Atlantic, and Balboa on the Pacific side by CK Hutchinson) following a multi-billion dollar expansion project in 2016, has spotlit the significance of the Portuguese port. Sines benefits from being Europe's closest deepwater port to a major waterway across the Atlantic, especially the US shale basins on its east coast. Hence, Sines now emerges as a potential connection between BRI's maritime Silk Road and one of its key economic belts. In 2019, the port authority issued a concession contract for the construction and commercial operation of a new container depot, to be named the Vasco da Gama Terminal. It thus became the port's second container terminal and fifth terminal overall with an estimated total private investment from the future concession of around €642 million. However, it should be noted that while early imports from Portugal to China were led by Land Transport, Equipment and Parts (23%) in 2018, down from (34%) in 2017, by 2019 the engineering categories were replaced by the hitherto lesser-ranked Wood, Cork and Paper (17%). Bilateral trade in services in 2018 remained in deficit for Portugal, whose exports were €245 million but imports amounted to €342 million (Pereira 2020).

6. China's BRI in Piraeus, Greece

In April 2016, the China Ocean Shipping Company (COSCO) signed an agreement with the Hellenic Republic Asset Development Fund (HRADF) to acquire 67% of the shares in the Piraeus Port Authority (PPA) for €368.5 million and became the operator of the port. According to the concession agreement expiring in 2052, the majority stake of 67% would be acquired in two stages; the first, a €280.5 million payment by HRADF for a 51% share. After a period of 5 years, COSCO could acquire the other 16% for €88 million, provided that a mandatory investment threshold of €300 million has been met or exceeded (HRADF 2016). The PPA had submitted its investment master plan worth approximately €600 million. This included a new logistics centre, an additional cruise-ship terminal, four hotels, and a shopping mall – later approved by the Greek president. The Greek port of Piraeus is a cautionary tale in this regard. Piraeus became a central part of the BRI after China's largest state-backed shipping conglomerate, COSCO, became its main investor in 2008 with the awarding of a concession to manage two of the port's terminals. Five years later, COSCO won a contract to build a third terminal. It eventually purchased a majority stake in the port.

Around the same time, Greece's voting record on China-related issues began to change direction. In 2016, Greece helped weaken an EU statement regarding the International Arbitration Court's ruling on the South China Sea (the statement ended up being watered down such that direct references to Beijing were, effectively, removed). In 2017, Greece blocked an EU statement on China at the UN Human Rights Council in Geneva. Greece also later opposed an EU investment screening plan targeted towards China. The example of Piraeus may be exceptional because of the unique set of crises besetting Greece at the time. Nevertheless, this Greek case raises valid concerns about overexposure to Chinese investment in individual member states and the undermining of EU-wide decisions on China-related matters. For example, much 'chip & pin' payment technology in Greece is now controlled from China. Aside from the political consequences of Piraeus' integration into the BRI, there are also criticisms regarding the actual economic benefits of Chinese investment in the port. Most of the construction materials for the port's expansion, for example, came from China – not Greece or the rest of Europe. And although some 1000 jobs were created in Piraeus due to Chinese investment, COSCO primarily hired local workers using short-term contracts with wages far lower than the regular rate for unionized Greek dock workers. On the more positive side, once it was leased to COSCO, the port of Piraeus became one of the fastest growing container ports in the world, reaching 36th place in global container traffic rankings, from 93rd in 2010. The port has only 10 Chinese staff and employs 1000 Greek staff, and it has also created some indirect local employment. In 2020, the Greek government rejected a further €600 million port investment plan on grounds of archaeological finds. As a result, China started looking instead to invest in the Italian ports of Trieste and Genoa (Haralambides and Merk 2020).

Turning attention towards key aspects of the approved COSCO master plan for PPA; among the investments proposed and in some cases implemented by 2019 were those, on the one hand envisioning the Port of Piraeus project as an 'anchor investment' for attracting Chinese funds, but a 'Trojan Horse' by its critics. Numerous examples of these are detailed below. For instance, in October 2016, the China State Grid Corporation successfully acquired a 24% stake in the Greek public independent transmission company, working with Greek authorities to provide better electrical interconnection between the Greek islands and the mainland. In another case, the China Energy Investment Corporation, one of the world's largest power companies, registered its new energy European headquarters in Greece, later signing a cooperation deal with the Copelouzos Group of Greece in renewable energy and conventional electricity supply. Air China, the Chinese flagship airline, launched Beijing–Athens direct flights in September 2017. Owing to Air China being optimistic about the air cargo market in Greece, from April 2018 it increased weekly flights from two to three. In addition, Shenhua, China's largest coal producer, signed an agreement with the Copelouzos Group, one of the largest investment groups in Greece, for the acquisition of 75% of the shares of four wind parks developed by the Greek company. Similarly, COSCO's further investment plan in Piraeus was controversial; in February 2019, the Chinese delegation in Athens held a meeting with Greek officials and COSCO executives to register complaints about 'bureaucracy' as posed by the Port Planning and Development Commission (ESAL) and the Central Archaeological Council of Greece. The structural obstacles posed were related to conflicts between local interests and several elements of COSCO's master plan. For example, the construction of a mall inside the cruise terminal was seen as the final blow to the shopping stores of Piraeus and the development of a new logistics centre was directly competitive to the Piraeus Freight Centre.

China was increasingly seen as seeking to further its interests in retail, clean energy but also in contradiction, increasing its massive fossil fuel (coal) surpluses, port management, logistics infrastructure, and the environment, including ancient archaeological sites. It also raised concerns focusing on the step-change in scale of the international tourist market. Thus, two new cruise-ship terminals have been built and a new container terminal added to the existing ones. Piraeus has also increased the number of oil imports judging by the variably low or high in the water number of some 20 Delta Tanker ships at anchorage in Piraeus harbour for subsequent oil port offloading. On 21 August 2024, one of its 150,000 t oil carriers, the MV Sounion, was targeted and set on fire in the Red Sea by Houthi militants firing from Yemen, attacking its third Delta Tanker that month, in transit from Al-Basrah, Iraq to 'occupied Palestine', (actually to the Agioi Theodoroi motor oil refinery, in Greece's Saronic Gulf, east of Corinth) as a Houthi spokesperson mistakenly put it (Reuters 2024). Tourism opportunities from China have been increased by Air China's direct connections between Beijing and Athens, including more frequent air cargo flights. This suspicion attracts support from those who see the massive investments by Chinese SOEs accompanied by the European Investment Bank in renewing the built tourism environment in some nineteen resort refurbishments along the 'Athenian Riviera' including the redevelopment as a retail, office and hotel complex on the old Ellinikon (Olympic) airport to the east of the capital on the Attiki Peninsula. All in all, COSCO has presided over a sea-change in the city regional twin-cities of Athens and Piraeus from the viewpoint of advanced commercial and construction investment of significant scale.

7. Discussion

The forms of regional and national economic development planning that are discussed in the preceding narratives have significant implications for global re-balancing, just as the arrival of the new superpower of China spreads ripples over the land and sea of planet Earth. Occurring in times of weakness in the West, many countries, regions and cities suffer from major built environment problems. These have included varieties of housing crises with residents suffering soaring urban costs, major housing shortages and crises of housing credit availability, particularly for younger cohorts. Next are concerns about infrastructural renewal deficits or developmental crises caused by dis-investment, otherwise inadequate gross domestic capital formation, consequent on the Global Financial Crisis of 2007–2008. Into this mix are found moderate to poor labour or capital productivity and inflation following 10 years and more of 'quantitative easing'. Here, the opportunities from low interest rates got diverted into stockholder returns and managerial mega-bonuses for consumption but increased inequality in neoliberal regimes. This aggravated further weaknesses for democratic governance posed by authoritarian populist administrations presiding over political and military belligerence. Finally, these crises have combined with global heating to further weaken resistance to pandemic disease, reduction in biodiversity, rising global temperatures and sea levels, floods, wildfires and a global food crisis to present a 'permacrisis' more dystopian than many have ever experienced in their lifetimes. Entering stage right in the global theatre comes China, stirring the development pot like Macbeth's three witches to 'hover through the fog and filthy air'.

In Blakeley (2024), she quotes a left-wing summary of China's own economic permacrisis, which its BRI is meant to contribute to mitigating, indicating both President Xi Jinping's *desire* to overcome the West's dominance of global political economy and the 'abstract machine' by which the 'debt trap' will be implemented in furtherance of that dream. The BRI represents:

> … nothing less than an attempt to solve China's problems of overcapacity and surplus capital, declining trade opportunities, growing debt and falling rates of profit through a geographic expansion of China's economic activity and processes. (Hart-Landsberg 2018)

For China, spatial planning was the 'abstract machine' which gave rise to its quest for global expansion, fuelling the desire for the 'world kingpin' dream. Amidst stories from returning academics and other visitors, of cities being thrown-up speculatively inspired by kitsch replicas of Mediterranean villages, Parisian townscapes and other pastiche ghost towns, the Chinese real estate boom, which began in 1996 ended with the collapse of the indebted Evergrande construction corporation in 2021. But this was only temporarily as it transpired – because Chinese State planners, still buttressed with the resources of the State-Owned banks, revived Evergrande in 2022 to absorb even more of the surplus credit accumulated during the growth era between 2007 and 2015. In that 'short' decade, infrastructure investment, for example, reached 48% of GDP including the construction of some 12,000 miles of high-speed rail – from zero at its beginning. Already by 2021, some of its \$300 billion indebtedness had been acquired for \$31.3 million by BlackRock, the world's largest asset management fund with \$10 trillion under management, and investment banks HSBC and UBS which took 40% and 25% short-term positions, respectively, in the firm. In 2024, Big Four auditor PwC was hit by the Chinese authorities for concealing fraud with a 6-month government tendering ban from September, as part of punishment and a £47 million fine over its spurious \$80 billion inflated audit of collapsed property developer Evergrande (Hawkins 2024). Evergrande had become an 'abstract machine' in a state of suspended animation, although ordered to liquidate and confirm bankruptcy in the Hong Kong courts. Yet in 2024, it still retained its life-support by virtue of being indebted mainly to the Chinese banking system.

8. Conclusions

In conclusion, an overview of the paper shows that events explaining ‘why and what happened’ when an ‘assemblage theory’ outlook was adopted, the moral and amoral dimensions of policies apparently intended to reduce regional inequalities were compared with the stated outcomes expected from the interventions in question revealed a disjunction. We found that vested interests were nearly always visible beneath the surface. In two test cases, intended to familiarize readers with the ‘assemblage’ approach, each adopted a hidden agenda that was ‘value engineering’. This was shown to be a malign way of manipulating returns massively to favour shareholders and managers of large, complex public utilities or other corporate entities at the expense of safety and remunerative returns to labour. In the highlighted cases of the impact of China’s BRI, the research showed that its much-vaunted global economic development initiative served many conflicting outcomes. The BRI Serbian railways upgrade in Serbia’s second city led to deaths from shoddy, and according to protesters, reports of corrupt construction of station architecture, the cantilevered canopy collapse of which killed 15 passengers. Elsewhere, overdevelopment and a massive investment in accommodation, hospitality and retail consumption infrastructures with potentially negative ‘overtourism’ outcomes in the Athenian case was one effect. While intermodal and internodal excess mobility infrastructure investment was to enable greater fossil fuel export and import capabilities for China at Portugal’s second port. These included major transatlantic port investment at Sines aimed directly at both the north and south American markets, importing both ways and across the Pacific to-and-from China through the Panama Canal. This has subsequently fomented populist political intentions to take back control against the Chinese port investments at both ends of the canal. The scale of this Chinese ‘desire’ for world economic domination seems to have been belatedly recognized by the American populist political wing. Clearly, the EU was blindsided on China to the extent the EU is a major funder, through the European Investment Bank, of the ‘Athenian Riviera’ project. Many EU members or potential accession states have benefited, or otherwise, from implemented interventions in regional economic development at the globally clustered set of hub-and-spoke ‘linear nodes’ or starry constellations assembled by China. Each infrastructure or financial ‘agent’ could be seen picking off assets in many of the European representatives of the 150 BRI affiliated EU and non-EU countries from Nordic telecoms clusters (Telia, Ericsson, Nokia) now knitted into BRI, including the Balkans and southern European victims of the European debt crisis.

Clearly, this paper shows how China as an ‘authoritarian capitalist’ political economy under a Communist Party political regime based on an over-consuming economy of giga-scale rapidly built upon tremendous cash reserves. These arose from trading globally as the ‘world factory’ around the years of the millennium causing China subsequently to suffer from the resulting over-accumulation crisis and associated debt-overhang. This, in line with Marxist analysis of theses on the origins of crises of under-consumption and over-accumulation, was followed by China’s swift policy proposal to export its over-accumulation crisis abroad, thereby extending the market for China-originated investment, while curtailing consumption, investment and increasingly taxing excessive superprofits domestically. The tried and tested method deployed by capitalists, historically in the West, was to occupy or re-occupy colonial territories and conduct policies of constructing new cities and economic regions. This was also often the ambiguous yet cynical policy of promoting imperialism but labelling it liberalist free trade, while simultaneously denying liberal free trade measures to the colonial recipients of such hypocritical ideology. President Xi Jinping's administration swiftly revealed it had paid attention to those 'quantum' obfuscations by launching China's BRI with the aim of 'making all roads lead to China' to express the 'desire' for world domination for this 'giga-assemblage'. In the process, and under the guise of massive credit provision for economic development, credit recipient 'partners' were in many cases caught in the ensuing 'debt trap' and subject to unaffordable loan repayments. Alternatively, many unused new facilities such as ports, transcontinental railways and international highway connections as in Sri Lanka, Serbia (where, as noted, in 2024 at Novi Sad, railway station renovations, funded by China's BRI, caused a canopy roof collapse that cost 15 passenger lives; Rankin and Krupa 2025) or Africa remained under-used or having little exchange or, indeed, use-value. Fears of having to default by distancing host government relations with the hitherto welcome donor investment for such transportation hub enlargements grew as in Portugal and Greece currently. The latter is their reaction to the politico-ideological struggle between Trump-Biden protectionism demonstrating to the west the pushback from the US, to China's perceived 'neo-imperialist' bid for global sovereignty.

This is despite the sour taste left by the EU and IMF's 'Troika' in refusing to allow other than neoliberal privatizations on such distressed economies during the Eurocrisis. China's 'desire' was motivated by the EU and IMF's intransigence which left both member-state economies having to sell their national assets to China as the only buyer in town. Opportunistically, Chinese 'assemblage' planners alighted on the advantageous prices at which the future assemblages' BRI 'bits and pieces' like ports, energy grids and transportation could be snapped up as part of the global mobility infrastructure's 'abstract machine'. Thus COSCO bought the Port of Piraeus for €368.5 million and CGT was a major funder of the €640 million joint project to make Sines a major transatlantic container port, international railhead, power grid and energy supplier. The assemblages had a 'structure of authority' through the mechanism of BRI's 'debt trap'. This was despite the international diplomatic aftermath of China's moves, which have not gone uncontested. It does not take much imagination to envisage how the Port of Piraeus with its two new COSCO international sea-cruise terminals and its new container port, will facilitate major increases in tourism, if not overtourism, in Athens, with up to 20 resort modernizations. These are composed, prefiguratively, with mass and luxury hotel, office and resort services planned along the 'Athenian Riviera'. Meanwhile, Sines seems set for a major function as a mostly fossil fuel energy import–export facility with a modest amount of Portuguese windpower in the mix but with a clear view of China's interest in exporting Mongolian coal westwards and Brazilian oil and US shale-gas and oil eastwards. A final obvious point is that neither of these contributors to China's new mega-assemblages appears to make any significant contribution to the mitigation of fossil fuel led climate change.

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References

Blakeley, G. 2024. *Vulture Capitalism*. London: Bloomsbury.

Belussi, F. 2018. "New Perspectives on the Evolution of Clusters." *European Planning Studies* 26 (9): 1796–1814. https://doi.org/10.1080/09654313.2018.1492059

Buchanan, I. 2022. *Assemblage Theory and Method*. London: Bloomsbury Academic.

Céu Pinto Arena, M. 2022. "Portugal's Challenging Relationship with China Under Tense US/EU-China Relations." *The International Spectator* 57 (4): 68–85. https://doi.org/10.1080/03932729.2022.2064059.

Cooke, P. 2002. "Biotechnology Clusters as Regional, Sectoral Innovation Systems." *International Regional Science Review* 25: 8–37. https://doi.org/10.1177/016001760202500102

Cooke, P., D. Kaufmann, C. Levin, and R. Wilson. 2006. "The Biosciences Knowledge Value Chain and Comparative Incubation Models." *The Journal of Technology Transfer* 31: 115–129. https://doi.org/10.1007/s10961-005-5025-3.

Cooke, P. 2012. *Complex Adaptive Innovation Systems*. London: Routledge.

Cooke, P. 2020. "Gigafactory Logistics in Space and Time: Tesla's Fourth Gigafactory and its Rivals." *Sustainability* 12 (5): 2044. https://doi.org/10.3390/su12052044.

Cooke, P. 2022. "Beyond the Smart or Resilient City: In Search of Sustainability in the Sojan Thirdspace." *Sustainability* 15 (1): 145. https://doi.org/10.20944/preprints202209.0469.v1.

Cooke, P. 2024. "Rogue Auditors: Dark Motivations of the Big 4 Accountants in Regional Sustainability and the Creative Economy." *European Planning Studies* 32: 9. https://doi.org/10.1080/09654313.2023.2220379.

Cooke, P. 2025. "Translating Specialist Versus Diversified Business Models Into Spatial Planning? Dark Limitations and Lighter Inspirations." In *The Oxford Handbook of Spatial Diversity and Business Economics*, edited by S. Wixe, C. Karlsson, and M. Andersson, 92–109. Oxford: Oxford University Press.

Cruz, I. 2024. "EU to Claw Back €100 m. from Cyprus China Co-funded Gas Terminal." *Financial Times*, July 31. FT.Newsletters.ft.com.

De Landa, M. 2019. *Assemblage Theory*. Edinburgh: Edinburgh University Press.

Deleuze, G., and F. Guattari. 2004. *A Thousand Plateaus*. London/Minneapolis: University of Minnesota Press.

Gawer, A., ed. 2009. *Platforms, Markets & Innovation*. Cheltenham: Edward Elgar.

Guardian Staff. 2025. "US Firm to Take Control of Ports on Panama Canal in $14 Billion Deal." *The Guardian*, March 5, p. 2.

Haralambides, H., and O. Merk. 2020. "The Belt and Road Initiative: Impacts on Global Maritime Trade Flows." International Transport Forum Discussion Papers No. 2020/02. Paris: OECD.

Hart-Landsberg, M. 2018. "A Critical Look at China's 'One Belt, One Road Initiative'." *Monthly Review Online*, October. https://mronline.org/2018.

Hawkins, A. 2024. "PwC Expecting Six-Month China Ban Over Evergrande Audit." *The Guardian*, August 22. https://www.theguardian.com/business/article/2024/aug/22/.

Hellenic Republic Asset Development Fund. 2016. *COSCO SHIPPING and the Hellenic Republic Asset Development Fund (HRADF)*. Beijing: HRADF & COSCO.

Hillman, J., and A. Tippett. 2021. *The Belt and Road Initiative: Forcing Europe to Reckon with China?* New York: Council on Foreign Relations.

Klein, N. 2007. *The Shock Doctrine: The Rise of Disaster Capitalism*. London: Allen Lane.

Partridge, J. 2025. “EV Company Northvolt Files for Bankruptcy in Sweden.” *The Guardian*, March 12, p. 31.
Pereira, R. 2020. *The Belt and Road Initiative*. Singapore: Springer.
Rankin, J., and J. Krupa. 2025. “Serbia’s Populist PM Steps Down After Months of Anger Over Deadly Roof Collapse.” *The Guardian*, January 29, p. 29.
Reuters. 2024. “Red Sea. No Sign of Oil Spill After Attack on Ship, Says EU.” *The Guardian*, August 29, p. 23.
The Economist. 2018. “Opening the Floodgates. Portugal’s Energy Giant May Sell to a Chinese State-Owned Utility.” May 19. https://www.economist.com/business/2018/05/19/portugals-energygiant-may-sell-to-a-chinese-state-owned-utility.
Thelen, K., and J. Mahoney. 2010. *Explaining Institutional Change: Ambiguity, Agency, and Power*. Cambridge: Cambridge University Press.
Varoufakis, Y. 2023. *Technofeudalism: What Killed Capitalism*. London: The Bodley Head.
Waterhouse, D. 2022. “Asia: Sri Lanka Default Puts China’s Belt and Road Initiative Under Scrutiny.” *Funds Europe*, November 8. https://www.funds-europe.com/asia-sri-lanka-default.
Wejchert, S. 2021. “Port of Sines: The Atlantic End of the New Silk Road.” *Policy Brief 07/2021*. Brussels: European Institute for Asian Studies.
Wixe, S., C. Karlsson, and M. Andersson, eds. 2025. *The Oxford Handbook of Spatial Diversity and Business Economics*. Oxford: Oxford University Press.