Geographies of the Institutional Economic Theory and the Belt and Road Initiative. Soft Law Agreements, Pollution Halo Affect, and the Sustainable Development Goals

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Abstract

The Belt and Road Initiative (the BRI) is the current stage of the Chinese capitalist model, and its progress through different nations depend on the governance that China established across a vast geography over a long period of time. The levels of the BRI international activity resemble a rapid flood rather than a slow flow, due to the availability of the Chinese state and private capital funds, since the start of the Deng modernisations, and China's entry into the WTO. The growth of the Chinese capitalism presented an interesting contrast to the models that the institutional economics have portrayed. There has been much interest on the interplay between the nature of the Chinese capitalism and the old and the new institutions that emerged. Overall, there exists a specific understanding of the growth in China in terms of the stronger and weaker institutions, that the paper attempts to explain. China's own development, the BRI activities, and the uneven success of the Sustainable Development Goals across the BRI membership also present an interesting discussion opportunity. Further, China's WTO entry, the WTO framework, and the subsequent BRI agreements also provide a useful contrast that the paper highlights.

Geographies of capitalist varieties

There is wide coverage, with emphasis on different institutions, of the Belt and Road Initiative as a development of the Chinese state activities, policies, and the elements of the Chinese capitalist model (Dunford 20221, Hobson and Zhang 2022, Li et al. 2022, Min 2021, Petry 2023, Simon 2023, Skidmore 2021). This paper seeks to define the topic, first from the perspective of the Chinese capitalism in relation to others, follows up with the question of whether Western institutional approach is relevant, and then considers further elements in relation the effects of the BRI. China's rapid surge in global trade and investment activities from the 2000s onward, has become informally known as the 'Beijing Consensus' (Bayari 2020a: 98). The Chinese model of capitalism has several layers of economic, political and social elements (Bayari 2018). 'The varieties of capitalism' paradigm addresses, within a wide spectrum, the differences of the nature and content of the individual national economic models. The initial version of this paradigm analysed the divergences among the mature capitalist economic models in the US, the UK, continental Europe, Japan, Taiwan, and South Korea (Dore 2000, Hall and Soskice 2001, Whitley 1999). Hall and Soskice (2001) present the economic systems, and growth in different geographies and industrial organizations in terms of their institutional formats. Such variations contributed to the different configurational understanding of respective national models of capitalism (Peck and Theodore 2007).

Earlier paradigms attempted to explain the global system via the dominant triad of North America, the EU and Japan at the time (Dicken 1999, Doremus et al. 2000). In the following decade, the theory of the 'emerging capitalist models' gained currency to account for the evolving models of China, South Africa, India, Brazil, Russia and Indonesia. As a result, the group name of 'BRICS' emerged. There has been a debate on how to place China within these paradigms, and the focus has been on China's regionally varied development, its multilayered governance, and the absence of a national consistency of institutions that defined the 'liberal' and 'coordinated' varieties of capitalism (Peck and Theodore 2007, Peck and Zhang 2013, Zhang and Peck 2016, Witt and Redding 2013, Witt et al. 2018).

Aside from its capitalist entrepreneurial led growth and export performance, China's specific nexus of the state, economy and enterprises present a complex model, and the Chinese state is the chief dynamic. In terms of its international trade and investment activities, China could be a type of liberal market model except for the place the state has in all the institutions (Bayari 2018). The Chinese model has some similarity with the earlier developed Asian economic models in South Korea and Japan, except that in these nations, early capitalist formations matured into modern capitalist classes alongside the evolution of their nation states. Overall, models in Asia place the emphasis on the enterprises' collective shaping of their environment while the Western institutional theories primarily focus on institutions (Carney et al. 2009). In China specifically, the state-owned-enterprises and state-ownership in stock market listed enterprises, are crucial in defining the Chinese model due to their share of the economy (Bayari 2020a, 2020b).

From the 1990s onwards, Chinese economic, financial and governance institutions were in a position of emergent articulation (Liew and He 2010). The Chinese model's content came to correspond to specific historical qualities as it has emerged rapidly and experienced growth in a short period of time. Its emergence has been the result of two competing paradigms: inviting foreign capital at the start of the Deng modernizations and the later shift of focus to domestic technological innovation (Chen 2014). Hence, this competition has created a form of duality in which the latter element has gained dominance. Various forms of such dualities may have also existed in other varieties in Europe and the Americas but those models have emerged over several hundreds of years. While the Chinese state and its fiscal powers have been the nurturer of the domestic economy, it was the Bretton Woods institutions that underwrote China's engagement with the global trade and investment environment (Bayari 2020a). There is not a specific indication that the Chinese state wants to reproduce the process of institutional development of the West and the state rule over the economic expansion has consistently followed the model of the continuation of state monopoly over political and economic power, credit expansion and provision and distribution of resources (Heep 2014). That is, while the BRI is emerging as an extension of the state-owned enterprises, it is unclear whether its elements will be eventually a privatized in part or in totality. The investigation of the Chinese model in terms of a paradigm of diversities has some limitations due to the seemingly over focus on the 'political state' rather the internal mechanisms of the 'economic state.' The paper attempts to address this in the following section.

Institutional economics from the Western perspective and China

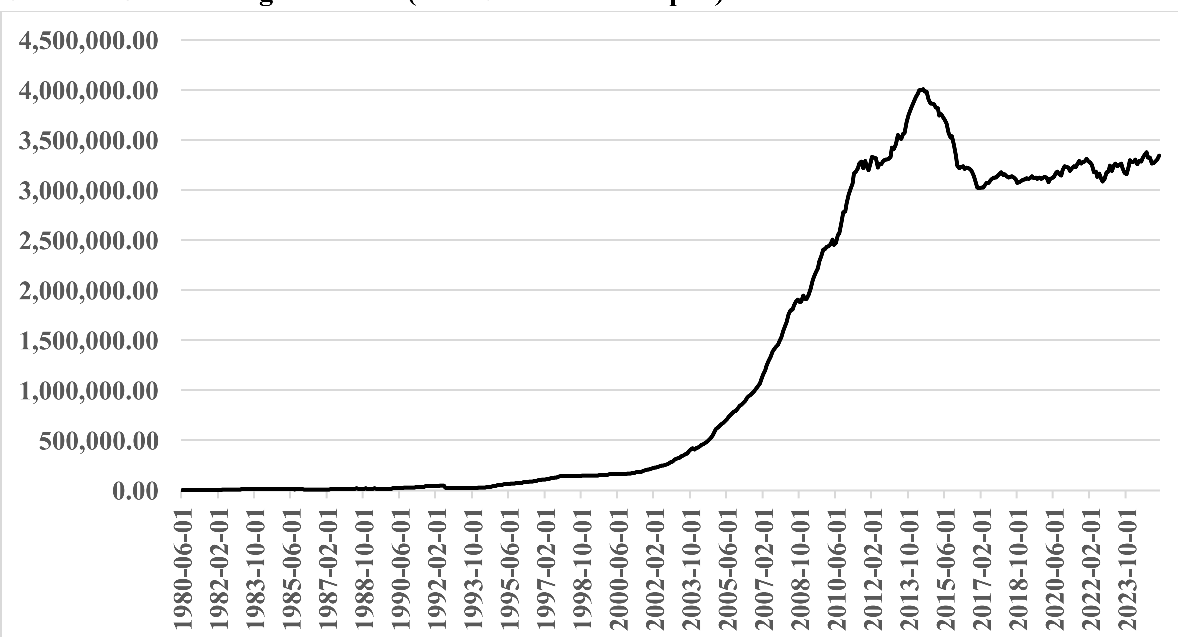
Institutional economics holds a significant place in the investigation of growth and development history in the Western economies, and this section discusses elements of the institutional economics paradigm in the works of Douglass C. North, with comments on the China and its economic growth after the Deng modernisations. There is an earlier treatment of the Deng modernisations elsewhere, that provides them as a context of the BRI (Bayari 2018: 13-14). Institutional economics belong to a Western geography as framework of economic growth, market governance and social relations. North's institutional economics inquiries derive from his earlier focus on the Western economic history of growth and development, specifically between 10th to 18th centuries, and thereafter (North and Thomas 1973, North 1981). Hence, institutions and their role in economic development are the two main principles (North 2005a). Broadly, differences between nations in terms of economic growth and stable wealth growth can, largely, be explained by how each nation sets up and implements its own rules to guarantee the success of a defined set of advantageous market behaviour, according to North. North utilises several terms, 'new institutional economics' (1994: 366), and 'institutional theory' (2003: 1), and states that ' … institutions have been devised by human beings to create order and reduce uncertainty in exchange. Together with the standard constraints of economics, they define the choice set and therefore determine transaction and production costs and hence the profitability and feasibility of engaging in economic activity … Institutions provide the incentive structure of an economy; as that structure evolves, it shapes the direction of economic change towards growth, stagnation, or decline' (1991: 97).

The nature of markets and market exchange is inherent to the analyses within the institutional economics. In an attempt to link the theory of institutional economics with a theory politics, North et al. (2009: 56, 64, 66) posit what they call 'limited access orders (natural states)' against 'open access orders' [i.e. the contemporary market economy model], whereby in the former 'extensive privileges, limited access to organizations, and the absence property rights define markets', but the latter have protection of property rights, competitive electoral process, and the 'ability to create economic organizations at will, open entry and competition in many markets, and the free movement of goods and individuals.' Hence, 'limited access orders' rely on multitude of forms restrictions for the markets to operate, and the elites can extract rents from markets (North et al. 2009: 60). How do we understand the Chinese model in this context? In particular the Deng modernisations are very significant in this respect (Bayari 2015, 2018). The Chinese institutional formations that contributed to the contemporary economy have several distinct events and developments (Table 1 and Table 2). North comments on the early phase of the successful local private commercial entities during the Deng modernisations and how they do not fit the institutional economics' preconceptions about successful institutional and organizational structures (2005b: 33). Prior to that discussion, North had emphasised the significance of the existence of inherited informal institutions in the absence of the formal ones in the establishment of 'open access order' of competition in markets and politics, and impersonal market exchange. The protection of private property rights, representative democracy, unbiased legal systems, and the rise and protection of capital markets are all intertwined, as per North (1991). While commenting on the former Eastern Bloc economies' transitions to the market economy, North argues that existence of a heritage of informal institutions can be of benefit on the way to the creation of new institutional structures, and states that 'economies without a heritage of informal institutions, and ideological perceptions to enable them to adjust to the stresses and strains of impersonal markets, competition, and other institutional consequences … simply cannot adjust overnight (1992: 27). Shirley and Xu (2025) track the progress of the early development stages of the Chinese model, and explain how, at first, the existing informal and formal institutions, guided the private sector growth with some level of protections against rentier interests, while new institutions, laws, and bureaucracies, gradually came into being to enforce contracts and provide private property rights and protections, all without any of the trajectories that the institutional economics framework outlines.

Institutions and their role in economic development, from the perspective of North, have been the focus of studies of comparative economic development, and growth in nations (Acemoglu et al. 2001, Rodrik et al. 2002). The long-distance trade activities, such as what takes place via the Belt and Road Initiative, can lead to the formation of new institutions under certain circumstance. Acemoglu et al. (2002), refer to North's work in their study of the growth of Europe's Atlantic nations, Atlantic trade and colonialism in the four centuries leading to the 19th century, and state that one of the enabling factors was that the existing institutions of these nations placed limits on the ruling dynasties' control of overseas trade that, in turn, enriched the private business which grew, and achieved institutional reform to enact private property rights. The rentier interests, thus, became inhibited permanently. Elsewhere, Acemoglu specifies the dichotomy of 'extractive' and 'inclusive' whereby 'extractive economic institutions' signify 'insecure property rights, entry barriers, regulations that inhibit functioning of markets, and creation of a non-level playing field', while 'extractive political institutions' include political institutions that concentrate power in the hands of a few, without constraints, checks and balances (2013:6). Acemoglu posits these against 'inclusive economic institutions 'that secure property rights, law and order, free markets, and the state support for markets, that provide relatively free entry of new businesses and uphold contracts, as inclusive political institutions provide rule of law, broad participation rights, pluralism, and constraints and checks on politicians (2013: 6).

Acemoglu and Robinson (2019: 3, 10, 13, 14) argue that in the case of China, the expansion of private sector during Deng Xiaoping leadership, and thereafter, has achieved 'extractive growth' whereby the state has created, and captured rent but the inclusive economic and political institutions have remained lacking. So, the economic growth, while it lasts, does not automatically lead to the establishment of the necessary institutions, in fact, in the case of China, the increase in the strength of the political rule accompanies an increase in legitimacy, due to the existing cultural institutional environment (Acemoglu and Robinson 2021: 3, 4). Acemoglu (2015: 311) states that the Chinese growth and the extractive institutions are similar to 'the colonist economic institutions that provided no incentive for investment, productivity improvement, and even choice of crop in agriculture. [China] slowly transformed to the community responsibility system, partnership in village enterprises, private property in agriculture, entry of private firms, and restructuring of some of the state-owned firms in the industry', yet extractive institutions do not last unless they 'transform themselves into inclusive institutions, as they are conducive set of arrangements for long run sustained economic growth'. China's property rights insecurity is a result wilful politics to maintain weak institutions so that the private sector is responsive to the state directives (Lin 2025). In the last four decades, the private sector's contributions to the state revenue have not yielded any powers over policy making for new institutions, and instead the political patronage, legal repression and political co-optation remain the informal institutions (Zhang 2019).

Chart 1: China foreign reserves (1980 June to 2025 April)



Source: Federal Reserve Economics Data (2025)

Overall, the significant point is that the Chinese market economy has, thus far, developed without Western style institutional protections. The Chinese state has absolute managerial directorship over the economy while the global neoliberal order requires respective nation states to deregulate their control over their individual economies (McNally 2019). In 1994, China became a net lender to the rest of the world due to its foreign reserve levels (Santacreu and Zhu 2017). The nation's foreign reserves (see Chart 1) had reached US$4 trillion in May 2014, and were US$3.3 trillion in April 2025 (Federal Reserve Economics Data 2025).

China's system of financing overseas loans, and investments is, politically and economically, at a level that is independent of the existing global financial system, and serves well the nation's financial nationalism, as it links financial activities with national interests (Zeits 2025: 310). For example, in terms of 'rescue loans', China has a clearer focus on the debtors of the BRI (Horn et al. 2023). But, China was also one of the debt relief providers in 1996, and later in 2005 respectively, that participated in the 'Heavily Indebted Poor Countries Initiative' and the 'Multilateral Debt Relief Initiative' (Cordella et al. 2025: 3). At the same time, while the United Nations' Social Development Goals (SDGs) are inherent to the functioning of the global institutions, for China the emphasis is elsewhere. The context of China's response to efforts to achieve the United Nations SDGs in its foreign aid has the element of political alignment as a determinant (Fuchs et al. 2025). Further, the growth in China also financially benefited other countries that may otherwise lack access to international loans and the emergent Chinese model began to underwrite the growth of nascent models of other nations. For example, Egorov and Konstantin (2005: 209) state that the Chinese state finances have contributed to the GDP expansion of the nations with monopolistic organisation of economic life. This particular aspect would require a longer discussion for which there is no space here, but the fact that China has not moved toward a Western style capitalist model or created 'inclusive institutions', and was able to create international lending mechanisms that are alternative to the neoliberal financial system are all inherent factors in its financial links with the nations with which it has political and business relations.

Table 1: China international lending chronology

1994	China becomes an international net lender
1996	China participates in Heavily Indebted Poor Countries Initiative
2005	China participates in Multilateral Debt Relief Initiative
2014	China foreign reserves peak
2017	China international lending peaks
2019	China international lending begins to decline

Source: The Author's compilation

Finally, there has been a decline in Chinese international lending since 2019 (see Table 1), even though the practices follow a pattern that aligns with the nation's global political strategy. (Moura 2025). Still, the decline in lending, which had actually peaked in 2017, may signify that the China's international financing may eventually develop into the areas of debt renegotiations, development finance and project finance within the neoliberal as well as post-neoliberal principles (Larsen 2025). So, even though China has not moved toward any of the Western or Asian economic models, as in the variety of capitalisms debate, or has not developed new institutional forms as outlined in the critique by Acemoglu (2013) and Acemoglu and Robinson (2019), it may well be moving toward morphing into a more orthodox international financier model. But this is an open question.

Table 2: Economic Policy milestones from Deng to Xi

1978	Deng Xiaoping announces ‘Four Modernizations’
1980	China becomes a member of the World Bank Group
1992	Deng Xiaoping's 'Southern Tour'
2000	Jiang Zemin announces the 'Go Out' policy
2011	China joins the World Trade Organisation
2013	Xi Jinping announces the Belt and Road Initiative

Source: The Author’s compilation

The BRI as a geography of ‘portfolio’ of ‘projects’

The BRI has a rich tapestry due to the its geographical spread, and the innate differences within it. It is a group of projects, rather than a single one. Not all projects are completed on time, on scope, and on budget. Some do fail to meet these three conditions. Portfolios with many projects continue as going concerns even if some projects fail. Thus, there is a need to define the BRI in its depth and range, in terms of an understanding that differentiates between one project and series of linked projects. ‘The BRI is the extension of the Chinese mercantilism as it is a demand creation project for two distinct zones of the state-owned internationalized businesses, firstly, the Chinese state finance sector and secondly, all the other sectors, including, primarily the construction, logistics, and utilities’ (Bayari 2020b: 10). The BRI’s infrastructure base originates from all the Chinese projects that linked the economy with other nations’ markets, starting in the 1990s (Bayari 2020a: 100). Xi outlined the nature of the strategic plan of the BRI, and its mission and vision in a speech at Nazarbayev University on September 7 2013 (see Xi 2013a). There is also a full list of all speeches on the BRI elsewhere (Xi 2013b). A strategic plan, and the stated vision, and the mission inherent to that plan form a manifesto of a business entity whereby all three elements must be fully innate to that entity’s undertakings for it to remain as a going concern and prosper. A strategic plan is a document that explains a vision and a mission plus the approach that will be adopted to achieve this mission and vision, including the specific goals and objectives to be achieved (Project Management Institute 2021: 251). The long term project value is possible only if there is an alignment of the strategy, vision, and mission (Project Management Institute 2021: 25).

The BRI resembles a portfolio, in the project management paradigm, that has multiple interlocked projects, with tasks some of which have been running concurrently. A portfolio consists projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives (Project Management Institute 2021:244). This present discussion views the totality of the ‘initiative’ as a portfolio. The BRI is an extension of ‘the rise of the Beijing Consensus, China's financier and mercantile capitalist engagement from the 2000s onward’ (Bayari 2022a: 99).

The BRI has numerous projects which this discussion will not summarise as the focus is the totality. ‘[A] project works within other larger systems, and a project deliverable may become part of a *larger system* to realize benefits' (Project Management Institute 2021: 37). In prior discussions, there were coverages of the aims of the Chinese state in terms of its trade and investment relations, and the role of the Chinese capital, both private and state, in China's foreign business expansion (Bayari 2020a, 2020b, 2018, 2015). This foreign expansion is the blueprint of the BRI. The estimates of China's financial stake in the BRI continually increased since its start (see Feingold 2023, Hillman 2018), and reached approximately US$1.2 trillion in 2024 (Nedofil 2025).

Overall, the BRI works within the system of the Chinese state and the owners of the Chinese capital that synchronise with the Chinese state policies, and directives. '[A] project may have subsystems that are required to integrate effectively to deliver the intended outcome' (Project Management Institute 2021: 37). In the present discussion, this is visible in the two elements of the BRI (Table 3), the 'investment' and the 'construction [of infrastructure]' that aim to create the outputs. Accordingly, the largest construction hub is the Middle East, while South East Asia is the destination of the largest share of investment, and Africa has the second spot in both of these categories.

Table 3: The BRI construction and investment distribution

Region	Distribution of China's BRI Construction Cumulative Funding (%) as of 2024
Middle East	45.71
Africa	22.6
South Asia	9.94
Europe	7.17
Central Asia	6.3
	Distribution China's BRI Cumulative Investment (%) as of 2024
S. E. Asia	35.34
Africa	25.97
Middle East	13.01
Central Asia	11.65
Europe	9.69

Source: Nedofil (2025)

Zwikael and Symrk (2019) argue that the 'input process output (IPO)' model includes the 'inputs' as the economic resources consumed by a project, the 'process' as the work done for project execution to produce its outputs, and the 'outputs' as the physical results (deliverables) but that this archaic model has limitations, and that their alternative which is the 'input transform output (ITO)' model includes the additional elements of 'utilisation mechanism' and 'target outcomes', and that the ITO emphasises that the outputs are utilised for target outcome generation (2019: 17, 34). In this context, the funders and owners are not necessarily are same as those who (consumer) utilise the outputs (deliverables) (Zwikael and Symrk 2019: 35).

The 'ITO model' is inherently relevant to this discussion as the BRI has a wide range of consumers of the 'utilisation mechanism' in several countries, and the regions within the countries. The

Chinese state is the funder, the owner, and a consumer as separate from the wides range of other consumers. That is, in brief, it is possible to envision the focus of the discussion of the BRI as being on the utilisation mechanisms, outcomes and the consumers, for a better understanding.

The project management body of knowledge (‘PMBOK’) is a comprehensive and definitive framework, and its content is germane to the purposes of this introduction. In the analysis of the BRI, in the first instance, it relevant to consider it in its entirety as a portfolio of projects given the levels of investment and construction activity by the Chinese state and the associated Chinese public and private capital. ‘A project is considered an investment in time, effort, and money. When a company invests money, it does so in pursuit of its mission to achieve and maintain a competitive advantage within the markets’ it operates (Marion and Richardson 2021: 166).

There are prior discussions of the nature of relationship between the Chinese private capital, the state capital, and the Chinese state itself (Bayari 2020a, 2020b). ‘The BRI that helps to secure raw materials, resources, and markets for Chinese products, which are essential to minimize disruptions to China’s supply chains, which are then combined with trade and investment agreements with many nations, and the overwhelming national goal of having power over entire value chains of key sectors’ (Gao 2024: 150). So, the BRI is an ‘import’ conduit for China (Lu et al. 2023), one that enables to Chinese state to govern all ‘imports.’ Overall, the Chinese state interests in the BRI run through forms of capital that inevitably link to the state itself, and the state is the ‘investor’, and ‘owner’ of the BRI.

The BRI inherited some characteristics that the Chinese state developed at the outset of its globalisation (see Bayari 2020a), to bypass market mechanisms that it cannot govern, and to create market relations that it can utilise. So, it is possible view some aspects of the BRI as ‘perpetual projects’ as it progresses, and the maintenance of costs add further momentum for expansion of construction and services. A ‘perpetual project,’ unlike the ‘project closure types’ of ‘normal,’ ‘failed’ ‘changed priority’ or ‘premature’ has no fixed date of completion (Larson and Gray 2021). A project outcome must be within the budget, timeline, and scope, for it to be a success. Certain ownership characteristics can make a project last beyond the planned chronology, scope, and cost. A project has definite initiation, planning, execution, and closure phases (Binder 2008). But a perpetual project has a yet to be determined closure phase, because its closure can yield certain outcomes that hinder its original scope. One reason may be that there is political obligation for the ‘owner’ to constantly assert real or perceived ownership rights and privileges. As this project has the scope of expanding Chinese capital (the state and private) into new geographies, it is possible to define it as a perpetual project. A further factor in this equation is that the owner is also likely to be the only possible source of any further funding, as per any new necessities

‘An outcome is an end result or consequence of a process or project, and outcomes can include outputs and artifacts, but have a broader intent by focusing on the benefits and value that the project was undertaken to deliver’ (Project Management Institute 2021: 4). In the instance of the BRI, it is possible to see that 'benefits and 'value' may continuously materialise as it is in a 'perpetual' pre-closure phase. At the same time, it is also possible to understand the BRI as a 'program' that brings about hitherto absent benefits to the owner which is the Chinese state. The definition of program is 'a group of related global projects managed in a coordinated way to obtain benefits and control not available from managing them individually' (Binder 2008: 5). Thus, it is possible to devise understanding of the BRI as a portfolio of projects that emerged out of the Chinese model of capitalism.

On the whole, the BRI is an outcome of the institutions that developed in symbiosis with the Chinese model. The model and the institutions display a form of symmetrical reciprocity. The Chinese model's most significant institutions include the state owned companies at all levels and all sectors of the economy, the legal framework that assures the state dominance in the private sector, the state finance organisations, energy, utility, media and transport companies, and the Chinese legal system that supports their existence. Earlier discussions analysed the centrality of these institutions in China (Bayari 2020a, 2015).

The BRI and a history of the economic geography

The Chinese state is the supreme legal, political, and social institution, and the state is the largest shareholder in the economy through the state-owned companies, the stakes in the private companies, and via the political rule over the markets (Bayari 2020b, 2018).

Table 4: Background to the Contemporary Economic Geography

The Qing created a protectorate rule over Inner Mongolia (1634-1911) and Tibet (1720-1912). Xinjiang is created via the destruction of Dzungar Khanate (1758). The Qing state expands westward with centrally determined economic and trade policies.
The establishment of the People's Republic of China governance over Inner Mongolia (1947), Xinjiang (1949) and Tibet (1950).
The handover of Hong Kong (1997) and Macau (1999).
China unilaterally declares South China Sea as a geography of 'core' interest (2010).

Source: The author's compilation

There is an intermittent and yet unambiguous continuity in China, from with the Qing Empire onward (see Table 4), in which the state driven policies of economic growth and unhindered trade in the newly acquired territories accompanied the westward expansion (Li et al. 2017, Liu and Fan 2016). Beginning with the Mao Zedong era throughout the Deng modernizations and beyond, the Chinese state has viewed geographically fragmented but progressive development as an inevitability, and delineated 'three economic-geographical belts' in which the primary belt of the Eastern seaboard would be developed first the growth of which would then assist the growth in the Central and Western belts (Guo 2013, Lim 2019, Lim and Horesh 2017, Narula and Dunning 2010).

In the 20th century, the Mao Zedong administration expanded the Beijing-centred economic development agenda into Xinjiang [the gateway to Central Asia and beyond] and Tibet as two regions (Perdue 2005). The ancient Silk Road originated as the economic expansion of the Han China into Central Asia, in the second century BC, after the Han victory over the Xuongnu Empire that covered the geographies of northern China, Xinjiang, Inner Mongolia, Gansu, Mongolia, east Kazakhstan, east Kyrgyzstan, southern Siberia (Liu 2010, Savelyev and Jeong 2020).

Further, there is also an element of a connection from a pre-communist era mindset via the work of Sun Yat-Sen. Chinese analysts as well as Xi Jinping himself cite Sun Yat-Sen publication *The Three Principles of People*, in defining the aims and programs of the BRI, Asian Infrastructure Investment Bank, and the New Development Bank as a paradigm of Beijing centred 'international development' (Helleiner and Wang 2019). China's market relation with the global markets is a construction of, the state ownership-dominated systems of China versus *laissez faire* capitalism of the West.

Table 5: China's trade value distribution

Markets	2013	2023
The BRI members	39.2	45.4
G7 [Italy ceased membership in March 2024]	28.2	25.8
All other	32.7	28.8

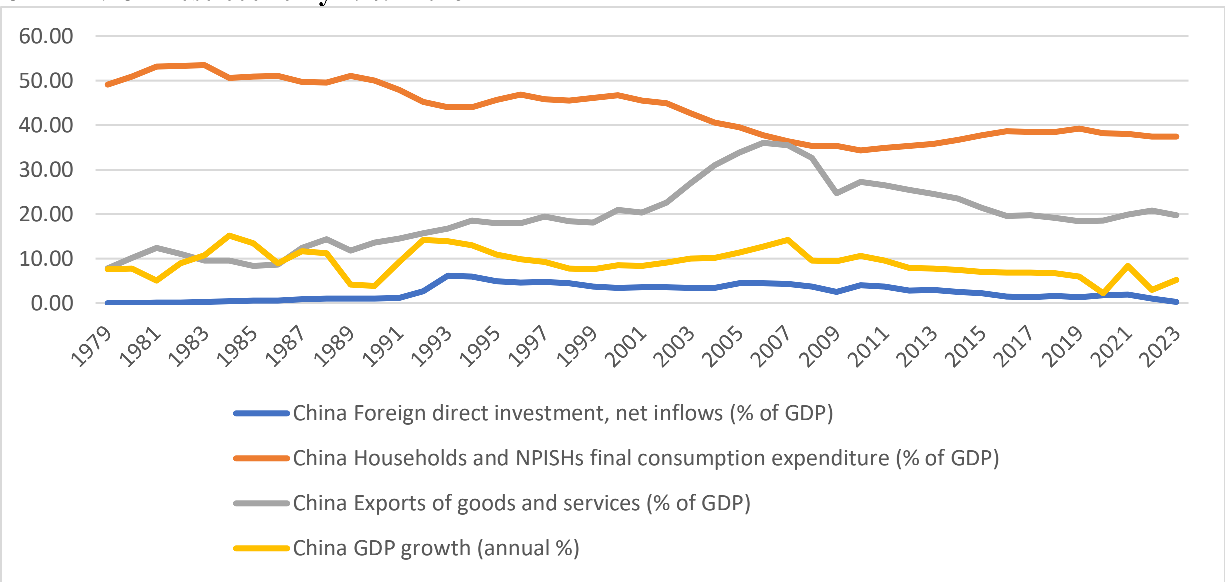
Source: CSIS (2024)

The BRI is a foreign direct investment and trade mechanism of the Xi government, and a progeny of the success of the Deng modernizations (Bayari 2020a). The BRI is multidirectional but the westward direction is historically continuous, as argued elsewhere in a discussion of Central Asia (Bayari 2015). China has intermittently signposted extraterritorial interests or sought advantages in its international relations to fulfill its strategic aspirations. The economic growth period which originated from the Deng modernizations has allowed the nation to connect its past contemplations with its contemporary status that derived from foreign exchange surplus. The BRI and the MSR appear as products of this resolute economic unfolding.

There are several long-term potential net gains for China from the BRI and its assets. Under some circumstances, it can claim the ownership of BRI infrastructure and energy assets in other countries, for which it provided loans, if those loans cannot be recouped (Oberhauser 2024). However, China can also gain revenue from any of the BRI elements (information and communication technologies, networks and services, roads, bridges, dams, energy infrastructures) via a revenue raising system without taking over ownership. It is able to do this by simply taking a share of the income derived from the consumers of the elements.

In fact, China can even charge private Chinese enterprises for the use of these elements. China's highest revenue gains from the BRI are right across its land borders. In terms of global value chains and trade, the bulk of the value in the BRI is created in the China-India, China-Russia, and China-Pakistan links (Lu and Wolszczak-Derlacz 2024). In reference to the Maritime Silk Road (MSR), specifically, benefits largely outweigh costs for China in comparison to the other participants (Martínez Galán and Leandro 2024). Thus, whether land-based or across the sea, China is able to sustain net gains.

Chart 2: Chinese economy 1979-2023



Source: World Bank (2024a, 2024b, 2024c, 2024d)

China's annual GDP growth, exports of goods and services and inward foreign investment, experienced a fall after 2008 (Chart 2). The exports 'share of GDP' peaked at 36 percent in 2006. The best performance of the Chinese export growth appears to have been in 1988-2008, and 2008 was the start of the global financial crisis. China's increase in exports as percentages of its GDP has not led to a more equal income distribution, unlike the other Asian economies that industrialized before it (Wu and Yao 2025). The Chinese domestic consumption, 'as % of GDP' peak was in 1986. The 2023 figure is back at the level of the year 2015.

As it has been publicised, the BRI has evolved rapidly (McBride et al. 2023). In 2013, Xi Jinping announced in overseas visits, the 'One Belt One Road' project. Subsequently, in 2015, official documents used the phrases of 'Silk Road Economic Belt' and '21st Century Maritime Silk Road.' In 2016, the former phrase became the 'Belt and Road Initiative' and the usage of the latter remains to denote the significant separation of the maritime projects.

The global consumer markets cannot continuously increase their imports of the Chinese exports, China's aging population means the shrinking of the labour supply, and increasing costs, and these factors mean that the domestic consumption needs to increase in China (Bayari 2018, Tyers 2015). In this context, the BRI is a solution, as it can form viable extremely long-distance markets for the

Chinese exports. The COVID-19 pandemic and the resulting global economic downturn was a short-term challenge to this project. The levels of domestic consumption, caused by the state's attempts to maintain the international competitiveness of the 'China price' (see Bayari 2018), is a factor in the globalization vision of the BRI. The state can export excess capacity along with some of the labour to foreign markets, without having to increase the buying power of labour at home (see Bayari 2020a). This can relieve domestic pressures, as it can direct labour to seek market wage elsewhere, and it can establish extraterritorial Chinese business systems within the guidelines of the Chinese economic model.

Geography of new legal agreements and the BRI

In global trade, there are two dominant national policy responses to counter actual or perceived negative effects of trade imbalance, 1) subsidies which a nation state provides for its domestic companies' production of goods and services, so they can compete against foreign companies, 2) tariffs which a nation state places on the imported goods and services to protect its domestic companies' production of goods and services. The World Trade Organisation (WTO) membership is the primary driver of tariff reductions. 'Trade weighted effective tariffs' that WTO members apply have almost halved since 1996', from 6.8 percent in 1996 to 2.5 percent in 2022 (Snoussi-Mimouni and Drevinskas 2023). The BRI, on the other hand, seeks to reduce non-tariff barriers and transportation costs among its own membership (Jackson and Shepotylo 2021). The WTO is a consensus based mechanism, developed from the 1947 General Agreement on Tariffs and Trade, as an outcome of the Bretton Woods Conference (see Bayari 2012), and it governs the global multilateral trade system to which individual nations belong via parliamentary ratification of their respective memberships, with the primary purposes of reducing tariff barriers, avoiding trade frictions, and resolving disputes among members (WTO 2023: 2, 3). Hence, the post-war Bretton Woods institution of the WTO operates under specific conditions. By contrast, the BRI agreements operate on 'soft law.' Soft law agreements contain contracts that are not legally binding, their implementation depend on the discretion of the signatories, and there is no delegation to a third party, such as an arbitrator or enforcer (Shaffer and Pollack 2009: 713).

The WTO has a dispute settlement system that includes the dispute settlement board, the Director-General and the WTO Secretariat, and the WTO Appellate Body. Absence of the applicability of such mechanisms characterise most soft law agreements. The WTO law applies in the trade relations between China and the BRI members, if those members are also WTO members (Marhold 2019). China's interaction with the WTO is shaped by its national business systems. A substantial part of the economic activity in China operates on the free market, according to the so-called capitalist rules, but strategic sectors are subjugated to the interests of the state' (da Silva and Pereira 2023: 148). Chinese accession to the WTO, despite the expectations of the time, has not led to Chinese business systems to converge with the mainstream of the West, and, as a consequence, the present WTO rules are insufficient to address the distortions caused by the Chinese state policies on trade and investment (Feás and Steinberg 2023: 344). China's agreements with the BRI members are soft law contracts for 'project development' that include 'primary agreements' such as ‘memorandum of understandings’ and ‘performance agreements’ as in contracts for ‘concession rights’, ‘land usage’, and for the financing and construction of ports and industrial facilities (Erie 2023: 52, Wang 2021: 7, 25). Through the BRI contracts, China seeks to influence nations to follow its own legislative framework, as there is no ‘BRI law’, but China has also sought to gain United Nations (UN) acceptance of the BRI and its principles, and attempted to have the BRI agreements recognised as part of ‘international law’ (Ibrahim 2025: 3). In terms of the United Nations response, ‘explicit references to the BRI first appeared in the official texts in 2016, often in the context of UN efforts to support the implementation of the SDGs, peaking in 2019, they then disappeared’ due to the ‘widening gulf between a (mostly) Western camp wary of Chinese influence and the BRI-affiliated majority of UN member states’ (Haug 2024: 1208, 1227). The data in Table 5 can be of some help in creating a context. The value of China’s trade is increasingly concentrated in the BRI.

The BRI can, arguably, reduce trade costs via new infrastructure and political agreements (Peng and Zhong 2024). According to de Soyres et al. (2020: 20), the BRI can ‘reduce shipment times and trade costs for the members up to 3.2 and 2.8 percent respectively, and for the world as a whole up to 2.5 and 2.2 percent respectively’. In a different calculation set, Ruta et al. (2018) state that the within the BRI membership, the transport costs can decrease by up to 3.5 percent, and for the trade between the members and the rest of the world, there can be 2.8 percent decrease. For instance, since the end of 2020, the EU and China have a Comprehensive Agreement on Investment without a free trade deal component. Within the EU and China trade, the BRI reduces transport costs, and if there is eventually a free trade agreement, in addition, the transport costs can decrease in a range of 15-20 percent (Jackson and Shepotylo 2021).

So, the reduction in the cost of transport is a standalone advantage for those that are outside the BRI but happen to be trading with the BRI members. There are also complex BRI scenarios that account for individual nations’ possible net gains in Asia Pacific (Kohl 2019). The BRI has a positive effect on its members who are participants in the global value chains, and augments the bilateral links between China, and the rest of the membership (Li et al. 2024, Lu et al. 2023, Wang et al. 2024). Prior research shows that the BRI has enhanced the intra-Asian production to allow the derivation of more value from the global production networks and that China is the prime dominator of the Asian production networks within them (Zheng et al. 2024).

The Chinese state and private companies characterise the BRI, and not all Chinese state institutions are geared toward governing free markets, and they do not serve institutional transparency in the BRI governance (Tse et al. 2024). For countries that joined the BRI, the offsetting of the adverse aspects of China’s import penetration depends on each respective member’s institutional framework, and the available policy choices (see Avenyo et al. 2024). The BRI members with relatively weaker institutional capabilities may increasingly become the importers of Chinese goods and services rather than continuing with domestic production, and their labor markets may suffer. The BRI is a form of a Chinese system to increase self-sufficiency, and reduce reliance on those that are not among the membership (Herrero 2023). The BRI membership causes decline in export variety while increasing export volumes (Lu and Wolszczak-Derlacz 2024). At the same time, the Chinese FDI inflows allow the upgrade of productive abilities and increase economic complexities in the host BRI nations (Yeung and Huber 2024). Overall, as the BRI matures, the multilateral and bilateral trade and investment environment come into clearer focus, and the specificities of the system become more apparent.

The BRI geography: pollution haven effect versus pollution halo effect

The global production and distribution of services and goods contribute to approximately 25% of all CO2 emissions in the world, as per an often quoted Banque de France report (2020). The net effect of the increasing participation of the developing countries in the global value chains is the increase in CO2 emissions, and the energy intensity, as these countries are more reliant on less energy efficient production methods, and consume more fossil fuels in their industries (Zhang et al. 2024). When advanced economies carry out foreign direct investment in developing economies' manufacturing that participate in global value chains, there are two possibilities in terms of pollution levels in the investment hosts, 'pollution heaven effect' or the 'pollution halo effect', as in the study of the mature EU economies FDI into new EU member nations, whereby 'pollution havens' continue to persist (Campos-Romero et al. 2023). In prior discussions of 'pollution haven effect hypothesis' versus 'pollution halo effect hypothesis', there are examples of how foreign direct investment flows lead to increased pollution in the host, which, if possible, can be countered by the promotion of clean industries and energy efficient production (Balsalobre Lorente et al. 2019, Mert and Caglar 2020). The FDI inflow is only one of the causes, but one with a positive correlation for the 'pollution haven' effect (Abbasi et al. 2023). In a more direct approach, there is the opinion that, FDI flows from developed to developing economies inevitably yield the 'pollution haven' effect in the host (Benzerrouk et al. 2021).

The diffusion of the new FDI flows into manufacturing in the BRI countries, can serve to reduce carbon emissions (Yang et al. 2024). However, there are also counter findings that, consequent to the increased Chinese FDI flows and trade, potential new growth and industrialisation will increase pollution haven effects, which necessitates new policies to deliver energy efficiency, energy conservation, sustainability practices and institutional reform (Kamal et al. 2023, Xu et al. 2023). There are indications that, the emissions will decrease if the BRI assist in upgrading the global value chains and create own greening programs for sustainability (Uzair and Wang 2023). That is, there is a consensus that the Chinese FDI flow effects in the BRI need to be in specific projects that reduce pollution haven effects. In this context, China and the rest of the BRI membership need to have 'policy coordination' in 'boosting the energy restructuring' of the BRI to reduce carbon emissions (Zhou et al. 2024b).

Existence and the quality of institutions affect the outcome of the game. China's choices in the BRI, as discussed in terms of the FDI, will face less resistance in geographies that has had little opportunities for capitalist expansion-related institutional formation. In a discussion of the MSR potential outcomes in South East Asia, Blanchard argues that this undertaking may well be bound to be less successful than the BRI because the of the existing differences in the political, economic and institutional settings (2018: 330, 341). In South East Asia particularly, the strong domestic market economies' institutional formations have a long history. The nations of the region, in the 1970s had many competitive advantages that included the access to low cost finance, strong state structures left over from respective post-colonial experiences, conscious and well-informed policies to substitute imports [build domestically - do not import], low cost and docile labor market that competed favourably with the stagflation and the industrial conflict the Western industrial nations (Robison et al. 1987, Rodan 1988, Rodan et al. 1997). This process led to the present institutional matrixes in the region. In this respect, some BRI nations may well be less likely to be pollution havens in the course of the BRI expansion due to their respective continuous histories of institutional development. To sum up, 'the BRI proves the pollution haven theory correct … investments that are cleaner … sustainable tend to gravitate to BRI countries with strong environmental legislation and enforcement measures … [and] the environmental damage caused by polluting companies may be worse in countries with lax regulations' (Zhou et al. 2024a: 10). The way forward requires for the BRI countries to coordinate their trade and carbon emission reduction policies (Huang et al. 2024).

In particular, there are BRI discussions on the necessity of new governance policies or institutions' responses in the host countries (Kamal et al. 2023, Khan et al. 2022, Xu et al. 2023, Uzair and Wang 2023), and the need for the BRI member host nations to develop policies to preferentially attract the Chinese FDI into the low CO2 yielding and low energy intense production sectors (Chen et al. 2024). Sulaman and Long (2021) states that among the BRI membership, there is an overall positive correlation between and a strong political system and political stability, and lower CO2 emissions, with the expected variations among countries with different levels income. So, there is evidence of a correlation between the high CO2 emission causing FDI flows and the weakness in the institutional governance in the BRI nations that host the FDI.

The SDGs in the BRI

The UN 17 SDGs form the overarching context of all global projects, and their respective management (UN General Assembly Economic and Social Council 2024). The Asia Pacific region has been going backwards in the process of fulfilling the 'Goal 13 Climate Action', primarily due to consequences of the natural disasters and the greenhouse gas emissions, though there has been progress on 'Goal 9 Industry, Innovation and Infrastructure' (Economic and Social Commission for Asia and the Pacific 2025). The latter aspect may be a flow on effect from the BRI spending in some parts of the region but the said report does not provide specific information. Elsewhere, there is coverage of the positive effects of the rise, and the growth of the 'Beijing

Consensus', and the BRI on the SDGs of the BRI member nations (Li et al. 2024, Liu et al. 2020), and there is evidence that effects are not positive for all members (Senadjki et al. 2022), and that, at best, there are gaps, in many aspects, between the BRI aims and their implementation (Liu and Harrington 2024, Lombardozzi 2024).

'China's current national economic development plans and policies as well as BRI international institutions and practices support implementation of the SDGs' (Lewis 2021: 74). There are relatively high expectations as to what the BRI can deliver in terms of potential contributions to the 17 SDG policies among the BRI membership (Chen et al. 2025). But within membership, there is uneven progress toward the SDGs, and there also exist debates on how new investments will respect environmental protections (Liu et al 2023, Senadjki et al. 2024). Every respective BRI member will progress toward each SDG in their own pace and modus (Feng et al. 2019). In regard to the aspects of the BRI projects that occur across borders, there also exists the matter of the lack of institutional coherence (Peng et al. 2025: 17). Differences exist 'in policy enforcement, legal systems, and institutional development, which can create barriers to project implementation' among the BRI membership's SDGs (Peng et al. 2025: 15).

In terms of the BRI membership that is well representative of several developing and emerging economies, 'when a country focuses solely on economic sustainability, it often overlooks the importance of social and environmental sustainability (Mahmood et al. 2024: 2). The most overwhelming aspect of the content of this matter is undoubtedly the fact that the SDGs that link with economic aspects show the most progress among the BRI members, followed by social and environmental, which the last item is of concern as it indicates that environment receives less attention than the rest (see Fang et al. 2023). So, while the BRI is a finely guided portfolio, its numerous projects are part of the challenges, which the SDGs issues highlight.

Conclusion

It is possible to analyse the Chinese economy in terms of an institutional outlook, which the paper has attempted above, and in terms of the foci of the review literature, there appears to be more emphasis on what the BRI can achieve rather than the possibilities of the creation of 'inclusive institutions' to remedy the shortcomings of the 'extractive institutions.' The post-Second World War liberal origins of the neoliberal global finance have allowed the entry and the operations of the Chinese economic model and Chinese finance (Table 1 and 2). That is, the ability of the neoliberal order to accommodate contradictory currents and institutions has allowed for the emergence and the utilisation of China's international financial tools. The next stage of this development has been the BRI. As the BRI matures into a system of trade and FDI, and as the progression of global efforts toward the achievement of the SGDs, gradually there emerges a need for the evaluation of the responsibilities of the BRI signatories. While Beijing has sought to further stabilise the BRI through seeking recognition at the United Nations, this appears to be a slow process. One factor that inhibits incorporation of the SDGs into the BRI platform is in the varied levels of the fiscal powers among the membership. Nations are more likely to focus on economic development, rather than other SDG targets, especially when their fiscal resources are under stress. Overall, China has benefited from the maturation of the BRI which has provided increasingly more of its trade value (Table 5). The further growth of the BRI will bring forth further questions in terms of the levels of success among the different projects it entails, and the experience of the different national geographies in terms of their achievements of targets that the SDGs inherently include.

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