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Assembling the Suez Economic and Trade Cooperation Zone

The Networks, Spatial Strategies and Development Impact of China's Relocating Manufacturing Industries in Egypt

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Thesis submitted for the degree of PhD in Development Studies

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Abstract

This thesis examines the dynamics and implications of assembling the Chinese-Egyptian Suez Economic and Trade Cooperation Zone (SETCzone) within the situated context of Egypt's militarised development landscape. The analysis situates the spatial interventions that facilitate the relocation of China's manufacturing industries to the zone within contemporary processes of global spatial-economic restructuring. Nevertheless, the methodological approach presented gives analytical priority to the complex and contingent geographies of spatial-economic policymaking and industrial restructuring underpinning China's engagements in Africa and its rise as a development actor more broadly. The thesis argues that the strategic imperative of creating an open trade environment responsive to the needs of mobile Chinese capital in Suez intersects with, and consolidates an Egyptian military-led strategy of land commercialisation as a key driver of development and infrastructure construction. The thesis further examines how these complexities influence the distribution of economic activities within the host region of Suez. In this light, the analysis emphasises the need to move beyond the fixed understanding of policy processes commonly utilised in development research, thinking and practice in order to reveal trends that are constitutive of these processes but are not captured in rational evaluations of policy. To substantiate its main argument, the thesis makes three main claims. First, the thesis examines the role of global development models in Chinese policy transfers in the context of China's Economic and Trade Cooperation Zone program in Africa, arguing that China's overseas economic zone initiatives are subject to the conditioning effects of the prevailing norms and standards of international development. The research then identifies unique features of China's overseas economic zone model that shed light on China's distinctive approach to domestic and international development. Second, the analysis traces the processes of aligning a range of agencies, institutions and modes of practice around a transferable Chinese overseas zone model in Suez. The thesis argues that land commercialisation is an emergent feature of Chinese development cooperation that is constitutive of Chinese zone policy transfers, and that contingently impacts how the host region of Suez is integrated into Chinese circuits and world markets. Finally, the thesis examines how the complex dynamics of Chinese zone-based cooperation impact the development pathway of the host region and its linkages to world markets in a country that seeks to use Chinese investment and know-how to effect structural change in the economy. The thesis finds that the SETCzone generates particular patterns of production, accumulation and exclusion that are the structural expression of the complex spatial relations identified.

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Abbreviations used

ANT	Actor Network Theory
BOD	Board of Directors
BRI	Belt and Road Initiative
CADFund	China Africa Development Fund
CDB	China Development Bank
EAF	Egyptian Armed Forces
ECCI	Egyptian Chinese Company for Investment
EGEMAC	Egyptian-German Electrical Manufacturing Company
ETCzone:	Economic and Trade Cooperation Zone
EPZ:	Export Processing Zone
FDI:	Foreign Direct Investment
FIAS	Facility for Investment Climate Advisory Services
GCC	Global Commodity Chain
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GVC	Global Value Chain
GPN	Global Production Network
IDM	International Drilling Material Manufacturing
IMF	International Monetary Fund
MDC	Main Development Company
MOD	Ministry of Defence
MOFCOM	Ministry of Commerce
MOU	Memorandum of Understanding
OECD	The Organisation for Economic Co-operation and Development
OFDI	Overseas Foreign Direct Investment
PPP	Public Private Partnership
SETCzone	Suez Economic and Trade Cooperation Zone
SEZ	Special Economic Zone
SCA	Suez Canal Authority
SCRDP	Suez Canal Regional Development Project
SCzone	Suez Canal Special Economic Zone
SEZone	Suez Canal Special Economic Zone
SME	Small and Medium Enterprises
SOE	State Owned Enterprise
TEDA	Tianjin Economic-Technological Development Area
TiVA	Trade in Value Added
UNCTAD	The United Nations Conference on Trade and Development
UNIDO	The United Nations Industrial Development Organization
WTO	World Trade Organisation

1. Introduction

This thesis examines the dynamics and implications of contemporary processes of global spatial-economic restructuring in the context of China's rise as a development actor under what is termed here as a Global Value Chain (GVC)/Global Production Network (GPN) development paradigm. The thesis focuses attention on the Chinese-built Suez Economic and Trade Cooperation Zone (SETCzone) in Egypt. The SETCzone was launched in 2008 under China's Africa economic zone program as an open trading environment in the national Egyptian economy aimed at facilitating the integration of the host region into Chinese production networks This thesis examines the assumptions, ideas and strategies underpinning China's overseas economic zone model. It provides an empirically informed analysis of the distinctive features of the zone's policy framework, shedding light on China's approach to international development cooperation. Nonetheless, analytical priority is given in this work to the complex geographies of spatial-economic policymaking and industrial restructuring underpinning China's engagements in Africa and more broadly.

The analysis focuses attention on the diverse actors, specific associations and situated processes involved in the SETCzone's construction, revealing trends that are constitutive of these processes but that remain hidden in rational evaluations of policy. The thesis argues that the imperative of creating an open trade environment responsive to the needs of mobile Chinese capital in Suez intersects with and consolidates an Egyptian military-led strategy of land commercialisation as a key driver of development and infrastructure construction. Land commercialisation and the militarisation of development emerge as constitutive features of spatial restructuring in the context of Chinese zone-based development cooperation, revealing the contingent effects of Chinese economic zone policy transfers. The thesis further examines how these complexities influence the distribution of economic activities *within* the zone itself at the level of the production chain, and *between* the zone and the domestic industrial base.

The methodological approach presented thus emphasises the contingent logic and unanticipated, emergent effects of implementing China's ideal-type economic zone model in Egypt. While shedding light on important aspects of the particular case study presented, the thesis also provides a guide for empirical investigation in analogous case studies

In this light, one of the main points emphasised in this research concerns the need to move beyond the fixed understanding of policy processes commonly utilised in development research, thinking and practice. The thesis proposes a policy assemblage methodological-analytical framework as a lens through which to examine and evaluate the effects of market-oriented policy interventions beyond agreed-upon metrics for improvement. Instead of privileging self-referential technical systems, the policy assemblage framework focuses on how market-constructing policy models are transferred, transposed and translated in different places in order to understand the full scope of their effects. By utilising this lens in the study of GVC/GPN-oriented spatial policymaking, the analysis reveals the hierarchies of knowledge that underpin these policy programs, the complex and diverse trajectories of policy (Baker and McGuirk 2017, 429), and the exclusions that provide the conditions of possibility for markets to function.

The thesis makes three main claims to substantiate its central argument. First, the analysis examines the spatial model adopted by Chinese zone operators in the SETCzone, arguing that this model converges with free-market terms for managing development partnerships imposed by leading international agencies and development institutions in the context of a global GVC/GPN-oriented development paradigm. The zone's roadmap prioritises a trade regime that facilitates the free flow of Chinese goods and capital rather than the developmental vision and state-centred solutions that underpinned China's own domestic zone program. Favouring liberalisation and market forces, China's overseas economic zone program contributes to a broader reframing of the focus of development discourse from development to processes of coordination and exchange led by nodal firms. The thesis thus finds that as discourses generated by free-market institutions have gained political influence across countries of the global South, such discourses are no longer the preserve of actors in the global North, particularly as emerging economies become more invested in creating enabling conditions for market-seeking capital.

The thesis then develop an analysis around the complexity of spatial-economic policymaking in China's overseas economic zone program. Using the Suez Economic and Trade Cooperation Zone (SETCzone) in Egypt as an empirical reference point, the thesis examines how a predominant ideal-type economic zone model designed to integrate territories into global networks of production, circulation and exchange is translated within the situated context of Egypt's militarised landscape. The analysis traces the processes of aligning a range of agencies, institutions and modes of practice around a transferable Chinese overseas zone model in Suez. Analysing the dynamic interactions that occur within the assembled arrangement of policy actors mobilised around the SETCzone policy program reveals emerging trends that are constitutive of China's policy transfers but that would be overlooked in standard approaches to studying economic-zone policymaking. The analysis highlights cross-border regional cooperation as a model of engagement that characterises 'GVC/GPN development with Chinese characteristics'. Mainly however, the analysis argues that land commercialisation is an emergent feature of Chinese zone-based development cooperation in Suez. This trend is constitutive of Chinese zone policy transfers, and contingently impacts how the host region of Suez is integrated into Chinese circuits and world markets.

Finally, the thesis examines how the complex dynamics of Chinese zone-based cooperation impact the development pathway of the host region in a country that seeks to use Chinese investment and know-how to effect structural change in the economy. The argument presented is that the SETCzone generates particular patterns of production, accumulation and exclusion that are the structural expression of the complex spatial relations identified. Specifically, a strategy that prioritises generating rents from land commercialisation intersects with and enables the particular practices of Chinese economic actors in the SETCzone. These practices are underpinned by a firm-coordinated approach to GVC/GPN-oriented development, where production organisation is controlled by lead firms in the chain without the intervention of domestic government institutions at the firm-to-firm level. This strategy and the conditions that enable it have allowed Chinese firms to avoid licencing and offshoring function to local contract partners, keeping international expansion within chains of lead Chinese firms and their affiliates and subsidiaries, and therefore allowing Chinese firms to retain control of all stages of the value-addition process.

The vertical integration of Chinese production chains in the SETCzone has allowed the zone to operate independently of its local setting, developing as an exclusionary node of value creation integrated into Chinese economic circuits and segregated from the host economy. Ultimately therefore, the SETCzone serves to format the forms of inclusion-exclusion upon which global markets depend to function and grow while fulfilling specific political-economic objectives determined at the national level of Chinese policymaking, in particular that of increasing the global spatial connectivity of China's regions.

At the intersection of critical policy studies and critical economic geography, the thesis thus addresses both universally circulated spatial planning policies and interventions, and the complex relations that underpin them in enacting production networks and chains. Conceptually, the analysis is animated by two main theoretical propositions concerning two core dynamics implicated in the construction of the SETCzone as a strategy for global economic integration, the centrality of universally circulated institutional knowledges on space and the economy on one hand, and the contingency of their effects on the other.

By foregrounding the situated context of spatial policymaking in the Suez region in Egypt the thesis aims to contribute to a growing body of geographically rich accounts of the complex, open and ongoing processes of economic globalisation, particularly in relation to GVC/GPN-oriented development, spatial transformation and economic exclusion in the context of China's rise. This includes studies in critical policy, critical economic geographic and critical political economy research (Adly 2020; Goodfellow 2020; Hanieh 2018; Liu et al; Summers 2016) that have sought to investigate the diverse practices and actors influencing the organisation and distribution of economic activities within such large-scale trends as geo-economics restructuring, market driven regulatory change, the informalisation of labour, socio-spatial unevenness and increasing territorial inequality and marginalisation (Brenner et al. 2011, 226). The present research goes even further by examining situated relations, associations and interactions implicated in global processes of spatial-economic transformation and their emergent effects. By foregrounding these effects, the thesis reveals place-based political and social phenomena that accompany processes of marketisation, and that are part and parcel of global capitalism and economic globalisation in the context of China's rise.

1.1.Rationale

The initial concern that motivated this research was to assess the impact of Chinese-bult economic zones on host locations within the context of conversations on new developmentalism, specifically the emerging literature on state-led developmentalism and industrialisation in Africa. The interest in economic zones was prompted first by their increasing popularity as a market-entry strategy for firms looking to relocate their production and marketing operations abroad, and second by the increasing importance of zones as the instrument of choice for African countries looking to attract mobile capital and increase their integration into global markets. The proliferation of Chinese zones on the African continent in recent years has raised pertinent questions around the developmental impact of Chinese manufacturing investments in Africa in particular, and whether they can catalyse African economies through backward linkages in a way that fully addresses the needs of the host locations.

Accordingly, this research project began by asking whether global production integration through the establishment of economic zones produces the outcomes that these zones claim to provoke. This causal relationship can be summarised in the association between trade openness and investment facilitation on one hand, and firm-led dynamics of upgrading, technological and employment change and structural transformation on the other. Drawing from predominant approaches in mainstream economic geography, the question assumed a definable causal links between a single factor, space, and the types of economic relations it aimed to generate under a particular framework for socioeconomic development.

The initial question of how Chinese overseas investments impact host economies has remained central to this work due to its growing significance to the field of development studies, be it in policymaking, practice or scholarship. This is because in the past two decades China has become Africa's most important economic partner. Hoping to cement and elevate this partnership, in 2006 the central Chinese government launched a series of industrial parks across Africa and the Middle East linking Chinese manufacturers to additional markets abroad. These zones served a bridging function between regional Chinese and African economies, helping Chinese regions achieve strategic economic advantage, while promising to develop the export industries of host economies and increase domestic exports to China. The SETCzone, one of seven zones established in the context of the program, was primed to become a flagship of Chinese zone-based cooperation in participating African countries, and has since acted as a pilot for projects to enhance cross-border regional cooperation in Egypt under the Belt and Road Initiative (BRI).

The SETCzone was therefore selected for this research as an important example and illustrative case study of the impact that Chinese industrial zones have on the development pathways of host locations, particularly in relation to the question of whether Chinese economic zones cooperation initiatives can catalyse African industrialisation and structural transformation.

Following a year of field research, however, first-hand evidence gathered in and around the SETCzone site showed that that the way the research question was structured, its underlying assumptions and the disciplinary, ontological and methodological positions that underpinned it did not fully correspond to the complex empirical reality at hand in the field site. This reality appeared at odds with conventional academic labels and disciplinary categories, revealing an array of dynamic conditions in which the zone policy program was realised that are not captured in conventional analytical frames on economic development, zone-based planning and industrial cooperation.

Field visits to the research site revealed that Egypt's SETCzone cannot be thought of simply in economistic terms. Instead, the array of empirical evidence collected showed that the zone could be construed all at once as an ideational, spatial, technical, political, material and social phenomenon that contingently impacts how the host region of Suez is integrated into Chinese circuits and world markets. Examining the conditions of possibility that underpinned the SETCzone's creation raised issues of knowledge, governance, expertise, diverse power interests and complex social relations, as well as revealing the differential ways in which communities experience the exclusionary infrastructures of globalisation. It thus became evident that a normative assessment of the dynamics and impact of the zone-based cooperation would fail to capture the full impact of how zone policy regimes spatialise.

Alternatively, an approach to policy analysis that recognises economic zones as multidimensional phenomena will help to promote a better understandings of historical and situated processes occurring in complex global settings, and the implications they have for communities worldwide. The key motivating rational for this research therefore is to address the notion adopted in normative (as well as some critical) assessments of economic policymaking that policies are hierarchal forms of knowledge that are imposed externally. Instead, this research adopts an approach that recognises the situatedness and contextual particularity of processes of market development.

1.2. Research questions and sub-questions

According to the above the central research question this thesis asks is **How is China's Economic and Trade Cooperation Zone model translated and assembled in Suez within the situated context of Egypt's militarised development landscape?**

To answer this question, the present research examine how spatial-economic development policies are translated in practice. First while recognising the mobilisation and reproduction of free-market ideas and practices in China's overseas development projects, the analysis also unpacks the complex politics of GVC/GPN/led development with Chinese characteristics. It identifies the specific institutions and actors involved in these investment flows and the establishment of industrial zones in Africa -from policy banks to central government bodies, regional Chinese governments and offshoring firms among other actors- and the political-economic context and diverse motivating rationales that underpin their actions.

Primarily however, using an approach that emphasises associations between multiple distanciated actors, the analysis considers the situated relations and interactions *within sites of Chinese engagement* that make the contemporary drive to economic integration even more complex. It recognises multiple forces at play in the translation of the SETCzone program without privileging specific loci of analysis, addressing the political power of domestic regimes, the strategic objectives of an assemblage of Chinese agencies and institutions, the market-seeking motive of offshoring Chinese firms, the planning of development agencies, global governance regimes and framing mechanisms, and the resources of property developers. Mainly however, the analysis foregrounds the active political agency of FDI receiving governments and domestic actors as they engage and align their interests with other actors in determining the trajectory and outcomes of GVC/GPN- oriented economic zone development. Examining these dynamics reveals that China's development initiatives in Egypt have helped to consolidate the power and enhance the legitimacy of Egypt's military backed government by facilitating the expansion of its role in international business. The militarisation of development has cemented land-commercialisation as a key strategy for development and infrastructure construction under Chinese development cooperation.

The second sub-question the research asks is **how does the Chinese-Egyptian Suez Economic and Trade Cooperation Zone frame the focus of development, and does this framework converge or deviate from the traditional terms for managing development partnerships emanating from free-market institutions?**

Zooming in on the spatial model adopted by Chinese actors in the overseas economic zone programme the analysis argues that this model converges with traditional terms for managing development partnerships emanating from leading international agencies and development institutions. The analysis first identifies the key organising discourses in GVC/GPN oriented development -the rules, procedures and standardised practices in development that 'frame' markets to comply with a certain vision of development. It does so by first examining the underpinning theoretical assumptions of a predominant 'development through upgrading' approach; developing an analysis of the ideal-type production system models such as outward-oriented clusters and globally-linked chains that are formulated around these assumptions; and identifying the policy programs -technical planning and development systems- that materialise such ideas and put conceptual models into practice and that constitute a GVC/GPN development paradigm. The research then goes on to examine the SETCzone's roadmap, arguing that the latter instrumentalises dominant discourses in development, prioritising a trade regime that facilitates the free flow of Chinese goods and capital rather than the developmental vision and state-centred solutions that underpinned China's domestic zone program. More broadly, the research argues that China's role in the global economy maintains existing development frames rather than helping to bring about an alternative model for development.

The third and final sub-question the research asks is **How do the production integration patterns that have emerged in the SETCzone impact the development pathway of the host region in Suez?**

In a study of the dynamics of Chinese overseas infrastructure investments, Liu et al (2020) pose a question that offer a useful starting point for this part of the research. They ask, as Chinese value chains continue to unbundle, will such China's connectivity-driven infrastructure afford domestic suppliers the opportunity to strategically couple with Sino-centric Global Value Chains in a way that generates inclusive growth and improvement of living standards (Liu et al 2020, 8)? Attempting to answer this question in the context of the SETCzone, this research examines the types of firm relations and GVC/GPN integration patterns that have emerged in the zone, and whether they work to diffuses economic activity, generate backward linkages, provide opportunities for socio-economic upgrading and catalyse structural transformation in the host location.

In this regard the research highlights the implications of integrating into Chinese production networks for countries looking to use Chinese investment and know-how to effect structural change in the economy, foregrounding the exclusionary outcomes of spatial planning for GVC development. The analysis demonstrates that this approach does not accommodate the types of proactive policies that assign a strong role for domestic institutions and government policy in driving the structural transformation agenda. It shows how, as a result, the production integration patterns enabled by the SETCzone have only enhanced its status as an enclave of FDI and liberal trade, rather than being a catalyst for enhancing productive capacities in the wider economy. The research finds that the constitutive exclusions that underpin the zone's construction operate on two levels: *within* the zone itself through the exclusion of Egyptian workers and firms from processes of capacity building; and *between* the zone and the surrounding region, by disarticulating the domestic industrial base in Suez from the gains of globalised economic activity.

1.3. Main contributions

1.3.1. Theoretical contributions:

The thesis deploys a Global Production Network (GPN) conceptual framework to explain and analyse the dynamics of inter-firm relations in the SETCzone. In contrast to the GVC approach, the GPN framework takes extra-firm factors and differentiated power relations into account when examining lead firm governance, rather than simply industry specific practices. GPN considers for example the role of government institutions in determining upgrading opportunities for domestic firms. The GPN framework provides space to consider the role of other factors and actors in determining how production relations are organised, mainly that of global institutions. The thesis uses the GPN framework as a foundation for the analysis presented, but provides three main theoretical contributions to the GPN framework to generate further insights into the dynamics and outcomes of firms relations. In doing so the thesis contributes to theoretical discussions around the analytical usefulness and limitations of existing models of production organisation in economic geography, while providing the necessary tools to account for the non-representable aspects of GVC/GPN development and zone-based policymaking.

1- Accounting for the epistemic foundations of the global economic order

The GPN framework stresses the need for a more nuanced understanding of power relationships and their development outcomes than one set of relationships -between lead firm and suppliers. It accounts for the role that wider political-economic, social and geographic factors play in shaping global development processes. While 'institutional power' is identified as a key factor among the various agencies and forces that mediate firm relationships, the GPN framework does not elaborate on the role of global institutions and development agencies in the widespread dissemination of GVC-oriented policies that foment the participation of firms in global markets (Werner et al 2014). This work specifically highlights the epistemic foundations of the world economic order, shedding light on the connection between prevailing development discourse and the way firm relations are structured between FDI receiving locations and their industrialised partners.

A key theoretical proposition guiding this research is that the ideas, assumptions, discourses and practices that underpin the creation of the SETCzone maintain a dominant spatial development paradigm that is driving contemporary development initiatives, including those between emerging powers and their partners in the global south. While privileging the forces and relationships that mediate and enact global development therefore, the thesis also accounts for the shaping influence of dominant actors and discourses in development. The analytical framework presented conceptualises international institutions as producers of global development knowledge, technical planning and development systems that enable and underpin global production networks. Further, the thesis draws on the disarticulations perspective within GPN research to highlight forms of exclusions, devaluation, dispossession and marginalisation in relation to dominant development discourses that facilitate integration into global circuits while reproducing uneven geographies of capitalism (Bair and Werner 2011b, 1000). The analysis therefore also critiques the dominant development discourse around GVC/GPN development, challenging established economic geographic paradigms which grasp only partially the contours of emergent landscapes of production and trade. In doing so the thesis contributes to research that challenges prevailing epistemologies regarding what development is and how to produce knowledge about it.

2- Recognising GVCs/GPNs as a spatial phenomena

The research centres the active role of space in organising economic relations and enacting hegemonic knowledge, highlighting the relationship between knowledge, power and space. The analysis frames the recent spatial turn in global development as an extension of the normative power of global institutions. Through the diffusion of spatial development models that are then adopted by governments worldwide, global institutions facilitate the production of universal spatial effects across locations to adapt them to the needs of mobile industry, helping to construct the contemporary landscape of economic globalisation. Space, and the economic relations it mediates are therefore products of universal regimes of knowledge and practice implicated in the refiguration of economic geographies on a global scale.

The role of space as a medium for advancing new modes of socioeconomic relations is evident in the proliferation of spatial models and initiatives that aim to facilitate the integration of places and regions into global value chains and production networks. In particular, economic zones have become an increasingly popular economic policy tool with the spread of networked production, and are now a leading instrument used by governments to facilitate the integration of subnational locations into world markets. The research highlights the critical role of these universally circulated spatial planning systems in securing suitable operating environments for internationally mobile industrial activity. It shows how, in a contemporary context, globally dispersed networks are territorialised through the construction of specialised economic zones rather than a universal tendency for clustering that underpinned the development of agglomeration economies under state-led planning, and how value-creation processes are facilitated by granting these designated economic areas special status.

Economic zones are thus conceptualised as spatial interventions that mediate and alter the dynamics of global production and circulation. A study of zoning policies in this work provides an illustrative example of the spatial strategies that underpin GVC/GPN development, which have received little attention in the GPN literature. The analysis, therefore, highlights the relevance to GPN research of the theoretical proposition that production organisation is articulated through change in the physical environment.

3- Conceptualising GPNs as assembled spatial-economic formations

The GPN framework acts as a useful conceptual tool to analyse interfirm relations. It is able to generate a more detailed account of the contours of the world economy than the GVC framework because it deprioritises the firm as the linchpin of economic transformation and accounts for the role of various other agencies in organising production relations. The original GPN framework utilises the relational concept of "embeddedness" in relation to firm-led production configurations and organisational outcomes as an alternative to GVCs transactional, rationalist-formalist position, which focuses solely on the characteristics and patterns of transactions between firms. Embeddedness accounts for particular territorial factors influencing the organisation of markets on a global scale. This research proposes the use of the assemblage framework as an alternative to, or complementing the embeddedness lens to examine networks of extra-firm actors. In explaining how production relations are organized, assemblage is able to account for relational interactions among elements that are both heterogenous and distanciated, stretching beyond the physical extent of a given territory.

The assemblage framework allows for a more complex understanding of the constitution of global production networks than "locally" oriented GPN network analysis does. Assemblage shows how one political context is modified by the way it is allied with another, explaining the nature of GPN integration patterns, including those occurring in the SETCzone, as a uniquely determined by the contextual particularities of the specific economic actors involved. By highlighting the distinctiveness of specific settings, assemblage addresses one of the main limitations of existing approaches in economic policy research, which enable processes of 'conceptual stretching' that place focus on common aspects of complex realities while obscuring critical historical and geographic contexts.

Contrary to what is reflected by accounts rooted in standard policy analysis, therefore, the SETCzone case study shows that China's transferable zone model, underpinned by an agenda of GVC/GPN-oriented industrialisation, is assembled in Egypt within a dynamic and complex arrangement of situated actors, institutions, resources and modes of practice. The analysis emphasises the strategic alignment of Egyptian and Chinese actors around a common agenda of pro-market development in the direction of enhancing spatial connectivity, as both countries began to readjust their strategies to the realities of an increasingly decentred and integrated world economy. But while the main priorities of Egypt's new military-led economic strategy in Suez dovetailed with China's emerging vision for overseas development, an empirically informed policy assemblage analysis show that the actors mobilised around the zone program formulate their own priorities.

A note on the use of the terms Global Value Chains and Global Production Networks in this thesis

While the conceptual development of the GPN framework will be dealt with in more detail in the coming chapters, it is important to clarify the distinction between the two concepts of Global Value Chain (GVC) and Global Production Networks (GPN) in order to explain how they are used in this research. GVCs and GPNs are the two main conceptual models used to analyse international production processes amid changes in the way that production operations are coordinated and organised in recent decades. The two branches of research are highly interrelated and refer to same phenomena of the "progressive outsourcing by lead firms in developed countries of their peripheral, and frequently low-value, productive functions to low-cost countries and regions"; and also to the fact that "lead firms have continued to dictate the terms and conditions of participation in networks and chains through different types of governance" (Neilson et al 2014, 1-2). A shared objective of the two conceptual frameworks is to identify geographical patterns of value creation and capture against the backdrop of an increasingly fragmented global production landscape.

The GVC and GPN frameworks were both developed to generate a more detailed account of the contours of the world economy but differ in terms of how they approach the phenomenon of globally distributed production. The GVC framework focuses on the characteristics of transactions between firms. GVC deals with firm-to-firm relationships with an emphasis on the firm-led governance of globalised production, inter-firm coordination and development through 'upgrading'. The GPN framework on the other hand takes the network, rather than chain as the central unit of analysis, examining the "nature of the interfirm relationships that binds set of firms into larger economic groups" (sturgeon 2009, 10). As noted, the framework utilises the relational concept of the "embeddedness" of firm-led production configurations and organisational outcomes. GPN's network-based approach integrates interfirm relationships, industries and national economies, incorporating territorial and geographic dimensions of the international production systems into the analysis (Coe et al 2008).

The GPN analytical framework is used in this research as a conceptual tool to analyse firm relations. Nonetheless the research recognises that it is the GVC approach, with its emphasis on value chain governance and firm upgrading, that has been adopted and adapted as a mode of analysis and intervention among leading development institutions (Werner et al 2014). This research will therefore refer to GVC/GPN combined or interchangeably when describing relevant development policies and practices, while using the term GPN to explain and analyse the way that international production processes are organised and to highlight the relevant agencies and dynamics implicated in these transformations.

1.3.2. Empirical contributions

The thesis explains the dynamics and outlines the implications of translating China's overseas economic zone model in the Suez region. In doing so the thesis makes three main empirical contributions to the study of contemporary processes of spatial-economic transformation and industrial restructuring, both in the context of China's engagements in Africa and more broadly.

1- **Outlining the features of a current consensus in development policy and practice**

In the past two decades global market integration has risen as a key development priority on the agendas of international development institutions and foreign aid donors in the global North, and subsequently on the economic planning agendas of national governments worldwide. The global consensus on connectivity has given rise to infrastructural and spatial formations that organise relations unfolding beyond the macrostructure of the state. These formations take a number of forms, from urban agglomerations and demarcated development zones to transnational infrastructure nodes and corridors, among other deregulated regimes connected through networked mega-infrastructure projects and logistics networks spanning across several countries or regions (Schindler and Kanai 2021, 40). An emerging connectivity paradigm is nonetheless underpinned by a deepening of centralised state planning, where national governments have taken a more active role in creating functional territories plugged into global networks of production and trade. The market-facilitating role of the state requires removing impediments to global trade and making available to capital economic rents in the form of incentives, public goods and services, and fixed capital assets.

This thesis provides a detailed analysis of the global political-economic and policy shifts underpinning the emergence of a connectivity-driven spatial development agenda. The thesis outlines a concrete policy framework enabling the emergence of a GVC/GPN-driven spatial development agenda, highlighting new forms of expertise around GVC/GPN spatial development. The research focuses specifically on the World Bank's leading role in solidifying a current consensus on spatial planning for economic development. It highlights World Bank publications spearheading efforts to 're-spatialise development policy' (Schindler and Kanai 2021, 44), focusing on policies relating to the governance of land use and the provisioning of infrastructures for global production. Crucially, the analysis sheds light on the core agendas, interests and power relations that underpin and uphold the use of GVC/GPN led spatial planning in contemporary development

2- **Demystifying the strategies and networks of China's overseas economic zone initiatives in Africa**

While research on spatially networked production and trade has largely been focused on initiatives led by traditional development actors, urban studies and spatial planning scholars are increasingly engaging with the 'planetary proliferation of cross-border infrastructure networks being built in the context of multipolar, competitive capitalist globalisation' (Kanai and Schindler 2019, 2). Thus far, however, there is a dearth of research on the actors and strategies that enable concrete operations integrating emerging actors like China deeper into the world economic system. China is the largest developing country investor and the World's fourth largest investor (UNCTAD 2022, 5). It is the force driving South-South economic flows

(Poon 2014, 1), strengthening its financial reach and geopolitical influence through investment, lending and aid programmes. The expansion of China's role in the global economy calls for a closer examination of the forces that facilitate these flows and their underpinning objectives.

This thesis explores the conditions surrounding the growth of Chinese investment in the African continent over the past two decades. The analysis provides crucial insights into the particular spatial strategies and relevant agencies, institutions and actors involved in Chinese investment flows, and the political-economic context and motivating rationale that underpin their actions. Examining the dynamics and implications of China's overseas cooperation zone program in Africa further offers useful insights on emerging plans for connectivity and cooperation under the Belt and Road Initiative, which has become the overarching framework for China's international integration.

3- Examining the dynamics and impact of China's manufacturing investments in Egypt

Studying the strategies of offshored Chinese firms in the SETCzone provide useful insights and a strong basis for evaluating the impact of Chinese industrial cooperation on the development pathways of host regions. A key driver of China's growing relationship with Africa is industrial cooperation, which emerged as a key component of China-Africa relations after China's appetite for natural resources began to wane in the early 2000s. Since then, the stock of manufacturing Foreign Direct Investments (FDI) by private Chinese enterprises in particular has increased notably with the vast majority of Chinese manufacturing firms in Africa largely concentrated in economic and industrial zones. A firm-centred study of the impact of Chinese manufacturing investments on Egypt's economy contributes to knowledge creation on the structural implications of Chinese development cooperation for countries that may seek to use Chinese investments and know-how to effect structural change in the economy.

1.4. Methodology

A policy assemblage methodological approach is used to answer the main questions of this research (the assemblage framework is discussed in further detail in chapter 2). Policy assemblage reflects a commitment to a new type of empirical inquiry in the study of marketisation and economic globalisation. This approach aims to provide an alternative to positivism -the ontology that underpins mainstream economics- in social science. In the study of economic policymaking, assemblage thus moves beyond the ontological politics of disciplinary approaches that represent one reality above all others, overcoming the foundational tension between the ways in which economists and social scientists approach socio-spatial phenomena. In this respect the proposed assemblage framework challenges the methodological principle of linear causality in mainstream theory and practice of development, where lines of causation flow from a singular causal mechanism and produce fixed outcomes. Policy assemblage can therefore be a useful lens to deploy in relational studies of production organisation.

In the study of economic policymaking, policy assemblage acknowledges knowledge and agency as key components in processes of marketisation and spatial-economic transformation. It builds on the foundational argument in critical policy studies that policy ideas and techniques, rather than being diffused unidirectionally from centers of policy innovation, are assembled in situated contexts (Peck 2011, 774), and concerns itself with revealing the relational ecologies of policy networks. A policy assemblage framework is therefore able to provide an interpretation of social reality that is more complex than isolated and definable causal links, weaving together a multiplicity of causal factors in the implementation of policy ideas and models. Accordingly although this research critically ascribes causal power to the discourses of global development institutions, it sees these knowledges as being implemented in complex entanglement of actors, resources, materials, practices and power relations.

By framing causality in immanent terms, the concept of assemblage upholds an epistemological focus on multiplicity, where a given social formation or process does not have a single pregiven identity, but one that arise from the interactions and articulations of multiple imperatives (Murdoch and Marsden 1995, 369). The epistemological commitments of the assemblage framework in turn inform a relational methodology in policy assemblage, which focuses on the situated actors and processes, as well as connections, entanglements, and interactions involved in constructing the contemporary landscapes of economic globalisation, over simply parsimonious models and typologies of structured (solid and stable) relations.

Baker and McGuirk (2017) specify three methodological practices to operationalise the epistemological commitments of assemblage thinking for policy research: adopting an ethnographic sensibility, tracing sites and situations and revealing the labours of assembling. Together these practices form a methodology that can be applied to a diverse range of empirical phenomena in policy studies and related fields, and that are used in this research to study the economic-geographic formation of globally-linked economic zones. In this respect the analysis differs from most policy-oriented research on economic zones, which tend to focus on the technical aspects of creating business friendly regularity and administrative regimes according to best institutional practice.

The first methodological practice emerging from assemblages epistemelogical commitment to multiplicity is adopting an ethnographic sensibility. An ethnographic methodological approach is used as a tool to generate a detailed and situated account of the ways in which the object of policy (spatial-economic configurations in this instance) are constituted in the context of various actors, imperatives, conditions and projects. This style of research is well equipped to deliver an in-depth qualitative understand of situated contexts, as well as their "relational configuration across a range of sites" (Baker and McGuirk 2017, 434). An ethnographic sensibility is concerned with *how* to look, and relies on a strategy of defamiliarising' the assumptive world of policy with its apolitical and technical framings. Seamless narratives of intention are disrupted by making visible multiple determinations and interactive processes, and recognising a world of embodied knowledge and contextualised meaning.

This style directly addresses the requirement of research that explores both the texts, as well as the actors, relationships and practices that mobilise ideas around GVC/GPN development, and the emergent properties of contemporary globalisation that arise as a result.

Once the world of policy has been defamiliarized, the second methodological practice proposed involves inductively tracing policy-making sites and situations. The practice of tracing sites in a policy assemblage framework is concerned with *where* to look. The concept of the 'field', which continues to be thought of as a single, geographically bounded space, is seen as "both a place (a site or territory) and as a series of unbounded, relatively disconnected and dispersed, perhaps sprawling activities, made in and through many different kinds of networks stretching far beyond [its] physical extent" (Robinson 2006, 763). Thus while ethnographic research continues to have a territorial emphasis (McCann and Ward 2012, 44), an assemblage inflected methodology incorporates multiple spatialities and jurisdictional boundaries, challenging the argument that policy is ”made in particular bureaucratic sites and projected across neat jurisdictional space”.

Identifying the field or area being studied thus begins with the practice of tracing people, things, ideas and practices and embedding them in wider situations, political settings or ideological projects. The series of interrelated sites and actors reveal the composite and relational nature of policy and policy implementation (Baker and McGurick 2017, 436).

Third, the above practices are complemented by the methodological practice of revealing the complex labours of assembling policy. The task of revealing the labours of assemblage is concerned with *what* to look for, and bears down on the wide range of policy actors, materials and configurations implicated in efforts that lie behind the process of assembling policy. While policy research has traditionally thought of policies as abstractions, favouring disembodied analysis of institutional and regulatory change, there has been an increasing emphasis in recent accounts on the multiple forms of labour that bring policy into being (Baker and McGuirk 2017, 437). Attention is given to institutionally embedded, socially and politically complex forms of work required to make heterogeneous elements cohere, shedding light on the conditions that make these projects possible as well as the imperatives driving various policy actors. Focusing on the grounded work of assemblage making, this research recognises policy implementation as a geographical process involving situated actors, elements and resources across spatial contexts. Following Baker and McGuirk (2017) the analysis examines the multiple ways in which policy ideas are transferred, translated and enacted, directing attention to the way that hegemonic projects and agendas are consolidated and translated in diverse settings.

1.5. Field research methods

The field research methods used in the present research are inspired by the abstract commitments of assemblage and their associated methodological practices. The research adopts a three pronged approach to the study of the Chinese-Egyptian SETCzone as an assembled formation using inductive, in depth methods of research: discourse tracing using documentary analysis (Baker and McGuirk 2017, 436; LeGreco and Tracy 2009; (Prince 2010, 171), multi-site research using observation and semi-structured interviews (Baker and McGuirk 2017, 435), and a firm-centred analysis using economic data and semi-structured interviews (Coe et al 2008, 277). The combination of approaches brings together a number of qualitative research methods and empirical styles of investigation to apprehend relevant knowledges in various loci of analysis, bearing on the use of an inductive strategy that provides the opportunity for constructing empirically grounded and geographically rich narratives of contingent phenomena. Together, these approaches generate an in-depth case study of the actors and strategies involved in shaping the SETCzone and bring to light both structural and unanticipated effects of GVC/GPN spatial planning in the zone.

More broadly these methods assist in formulating a detailed account of the dynamics of Chinese manufacturing investments in a Chinese-built economic zone, with insights for China-Africa cooperation and the implications of China’s global expansion for host locations in a wider sense. Moreover, the account also provides a strong basis for analysing the contemporary dynamics of a transforming global economic landscape.

1- Discourse tracing

This research deals with the knowledge regimes that describe and enact GVC/GPN development. As a data gathering approach, discourse tracing allows us to identify the features of this knowledge regime. Discourse tracing is the analysis of the formation, interpretation, and appropriation of discursive practices (LeGreco and Tracy 2009, 1518). This technique allows the researcher "to demonstrate the ways in which practices transform and become routinized over time, how certain policy texts might enable and/or constrain the possible discursive practices, and which voices and practices are privileged over others" (LeGreco and Tracy 2009, 1528). Moving from the abstract to the concrete, a discourse tracing approach used in this research employs the field research method of documentary analysis, documents being circulating knowledge in its material form (Baker and McGuirk 2017, 432) to develop a detailed account of the following. First, the theoretical assumptions of firm-coordinated 'development through upgrading'; second, the ideal-type production system models formulated around these assumptions, such as outward-oriented clusters and globally-linked chains; and third the technical planning and development systems -rules, policies, procedures and standardised practices- that materialise such ideas and put conceptual models into practice. Together, these key organising discourses 'frame' markets to comply with a GVC/GPN oriented vision of development

The materials reviewed include World Bank publications on spatial planning and development, with a focus on zone-based policymaking, issued between 2008 and 2020. These materials include policy documents, reports, policy guide-books, practitioners guides and Memorandums of Understanding (MOUs) used by the World Bank as vehicles for the diffusion of new economic ideas and the extension of new forms of expertise around GVC/GPN spatial development. Because the documents reviewed are produced by international development institutions, the relevant discourses are interpreted as the result of power relations and struggles over the making and performance of meaning. Adopting an ethnographic sensibility as methodological practice in documentary analysis provides scope for viewing these documents in light of the core agendas, interests and power relations that underpin them. As a style of research, ethnographic practice allows us to "step beyond seamless narratives of intention" (Baker and McGurick 2017), and encourages us to treat documentary evidence as ethnographic artefacts that reveal meaning and ways of thinking and acting.

2- Multi-site research

This thesis is structured as an individual case study focused on the Chinese-Egyptian Economic and Trade Cooperation Zone in Suez. The level of analysis is not the particular production site that is the object of study, nor did field research take place in a predefined geographical location, however. Rather, with the SETCzone acting as an anchor, the 'field site' was constituted of multiple spatialities based on the relational and interactive configuration of actors, projects, institutions, processes, accumulation strategies, and modes of practice included in the analysis (Baker and McGuirk 2017, 428). Locating these sites involved inductively tracing people, discourses and material to various locations rather than examining discreet communities of actors within a bounded geographical area. The 'extended' research site in this sense refers to the SETCzone's administrative facilities, factory floors, government ministry offices, conference halls, universities, embassies and online spaces which act as mediums for the dissemination of meaning, communication and action, and which are used as platforms for disseminating official publications and reports.

By giving attention to the various forces underpinning the SETCzone's construction and the series of interrelated sites in which these forces are embedded the research highlights the relational, topological and composite nature of policy. The analysis primarily aims to make visible cross-cutting agendas enacted by the circulating technical systems, systemising standards and norms deployed to facilitate integration into Chinese GPN/GVCs. In doing so the analysis sheds light on emerging trends within complex, open and ongoing processes of economic globalisation, in particular those linked to political actors assembled through, and mobilised around the zone program. In this respect the analysis examines how China's strategic imperatives in the SETCzone intersect with the militarisation of development in Egypt, foregrounding a military-led economic strategy of land rentierism and commercialisation used to expand the latter's role in international business and trade and consolidate its grip on power.

The set of research methods used in multi-site research include observation and in-depth interviews. Observation involves being attentive to the social, political, material and bureaucratic processes that occurred in the various sites visited. In-depth semi-structured interviews were conducted with key actors and informants within these sites. The methods used serve to sensitise the researcher to that which is indefinite, incoherent and absent from formal narratives (Law 2004, 82) constructing an account of Chinese overseas zones that departs from notions of regularity, singularity and generality, and emphasises notions of complexity, dynamism and emergence. This account affirms that spatial planning and development policies cannot be viewed as a set of technical measures, but as circulating knowledge forms enacted through existing social and political arrangements.

3- Firm centred analysis

The research employs an inductive firm-centred analysis to examine interactions between nodal firms and their suppliers operating in the SETCzone with a focus on gaining knowledge at an intra-industry level in order to obtain insights into wider patterns of GVC/GPN integration in the zone. The analysis identifies distinct GVC/GPN integration patterns within production chains led by internationalising Chinese firms in particular industries, baring on the translation of a globalising zone model that enables lead Chinese firms to define the terms of domestic integration into global markets, and the situated arrangements that underpin the relations of the market.

The study examines production integration patterns in three core industries in the SETCzone - heavy industry, fiberglass and textile- because of their important strategic interest for the Chinese zone operator, as well as providing a good cross section of operating environments. To obtain primary data the top three companies in each of the industry groups were contacted. The primary method of data collection used is in-depth individual interviews. Other sources of evidence utilised include documentary sources such as texts of agreements, official publications and SETCzone promotional material; and microanalysis, including observation and anecdotal evidence. The multiple sources of evidence converge in a triangulating fashion to reveal both distinct production integration patterns and the impact of firm relations in the SETCzone on the development pathway of the host region and the its linkages to the world market.

24 in-depth semi-structured interviews were conducted with key actors and informants for this thesis in a range of sites visited. All research participants interviewed were informed of the purpose of the interview and the aims of the research. Consent was obtained from all of the interviewees for the use of interview data. Several interviews have been anonymised to protect the identities of the participants.

1.6. Summary and thesis structure

To summarise, this thesis examines the role of global development models in Chinese policy transfer in the context of China's SETCzone initiative, arguing that China's overseas economic zone initiatives are subject to the conditioning effects of the prevailing norms and standards of international development. While identifying the policy frames that constitute this paradigm however, analytical priority is given in this research project to the complex and contingent geographies of industrial restructuring and spatial-economic transformation underpinning China's zone program in Egypt and more broadly. A methodological-analytical approach that emphasises complexity helps to reveal emerging trends in contemporary globalisation beyond those that normative evaluations of economic development models are capable of capturing. Utilising such an approach, the thesis argues that the strategic imperative of creating an open trade environment responsive to the needs of mobile Chinese capital in Suez intersects with and consolidates an Egyptian military-led strategy of land commercialisation as a key driver of development and infrastructure construction.

While examining the ideas, relations and contingent effects of zone-based spatial policymaking, this thesis also recognises economic zones as a political-economic phenomena. Alongside a focus on what is referred to here as a Global Value Chain development paradigm and an analysis of the arrangements that underpin the relations of the markets, the thesis also aims to assess the structural effects of GVC/GPN-led planning with Chinese characteristics in the SETCzone. The analysis details particular patterns of production, accumulation and exclusion that are the structural expression of the complex spatial relations identified, arguing that the vertical integration of Chinese production chains in the SETCzone has allowed the zone to develop as a node of value creation integrated into Chinese economic circuits and segregated from the host economy. The thesis provides empirical evidence on the disarticulations and constitutive exclusions of globally-oriented economic zones, with implications for analogous cases where governments seek to use Chinese investment and know-how to effect structural change in the economy.

The remainder of this thesis is divided into 8 chapters. Chapter 2 situates the present research within the literature on Global Production Networks. The chapter argues that incorporating an assemblage interpretive framework into the study of GVC/GPN-oriented policymaking clarifies both the shaping role of forms of knowledge that dominate the global institutional landscape, as well as the context-specific dynamics that provide the conditions of possibility for enacting such arrangements. The discussion outlines the contribution of this research to the GPN conceptual framework by theorising the role of development agencies and institutions in creating the enabling environments for the articulation of firms into GVCs and GPNs. The chapter also reviews the existing network methodology utilised in GPN analysis, discussing how the GPN framework conceptualises the organisation of firm relationships in production networks and how it has dealt with question of contingency, before proposing an alternative relational lens.

Chapter 3 argues that contemporary economic zone policy programs developed and promoted by the World Bank structure markets to correspond to a GVC/GPN-oriented vision of development. The chapter identifies and situates in historical context the concrete spatial policies and technical practices prescribed by global institutions to restructure economies towards GVC industrialisation and development. It then details the specific historical events and conditions that led to the emergence GVC related development policies and ideas, focusing on the rejuvenation of centralised spatial planning in a post-financial crisis global economy. The discussion traces the re-emergence and institutional incorporation of centralised spatial planning, with a focus on GVC/GPN oriented zone-based policymaking in the period between 2008 and 2020. The analysis zooms in on three areas of policy and practice that relate to the development, use and governance of land in the context of GVC/GPN oriented economic zone development, including the governance of land-use, infrastructure provisioning and the introduction of new measures of international trade.

Chapter 4 and 5 build on chapter 3 by shifting attention to the complexities of planning for GVC development. Chapter 4 reviews the literature on the impact of China's investment flows on Africa. It argues that China's development model maintains a neoclassical development paradigm advanced by global institutions and development actors, rather than offering an alternative growth path. Chapter 5 argues that the spatial model underpinning China's overseas Economic and Trade Cooperation Zone (ETCzone) programme converges with traditional terms for managing development partnerships imposed by leading international agencies and development institutions in the context of a GVC development paradigm. At the same time Chinese zone initiatives are adapted to the strategic imperatives of the actors involved in developing them. The analysis highlights the role of subnational regional agency as one way in which China is redefining globalisation with its own characteristics. It coins the term 'GVC development with Chinese characteristics' in reference to the strategies adopted in the ETCzone program, highlight paradigm maintenance in the spatial planning policies used while also foregrounding the particular strategic and political-economic imperatives shaping China's internationalisation trajectory

Chapters 6 and 7 further unpack the key concept of complexity in zone planning by examining the politics and geographies of China's international engagements. Chapter 6 provides an overview of the domestic political-economic context of spatial policymaking in the Suez region, examining the embedded agents, norms, institutions and modes of practice that produce and reproduce the relations of the market in the region. The chapter argues that the Egyptian Armed Forces' (EAF's) growing influence on economic policymaking has massively intensified land-commercialisation as a key driver of development and infrastructure construction in a context of weak investment, low productivity and marginal levels of market integration (Adly 2020, 13). Chapter 7 explores how China's transferable zone model, underpinned by an agenda of GVC/GPN-oriented industrialisation, is translated in the situated context of the Suez Economic and Trade Cooperation Zone focusing attention on geographically specific actor strategies and trends implicated in the zone's construction. The chapter argues that the intersection of Chinese ambitions in Suez with Egypt's vision for development following the capture of state power by the Egyptian Armed Forces resulted in distinct modes of accumulation and their associated politics. As military actors in Egypt synergies their development objectives with international partners around the goal of enhancing spatial connectivity, land commercialisation and the militarisation of development emerge as part and parcel of the global development landscape in the context of China's rise.

Chapter 8 turns its attention to the structural effects of GVC/GPN-led spatial planning with Chinese characteristics in the SETCzone with the aim of identifying distinct GVC/GPN integration patterns within production chains led by internationalising Chinese firms. The chapter employs firm-level analysis to reveal the nature of firm relationships across three sectors. The chapter argues that while firms employ a variety of approaches according to pressures in different industries, the practices of Chinese economic actors in the SETCzone are underpinned by a firm-coordinated development approach, prioritising the capacity of firm-led development to help domestic firms upgrade over interventions at the cluster or chain level. This strategy has allowed Chinese firms to avoid offshoring capacities to domestic suppliers and Chinese lead firms to maintain the vertical integration of their value chains, maximising profit as market actors whilst also fulfilling strategic purposes set at the national level related to domestic Chinese development. This has resulted in the development of the SETCzone as an exclusionary node for value creation in China's unbundled chains. The chapter addresses the impact of firm-coordinated development in the SETCzone on the development pathway of the host region, foregrounding the exclusionary, marginalising effects of the development through upgrading strategy that underpins the creation of modern zones.

Chapter 9 summarises the main findings of the research and argues for the need to rethink ideal-type production models as a basis for development policymaking and research. The chapter outlines three main critiques of mainstream ideal-type production system models such as economic zones and Global Value Chains/Global Production Networks with regards to their use as frameworks for policy and understanding. The chapter then addresses the implications of these critiques and the wider discussion of paradigm maintenance in Chinese GVC/GPN development for future research in two main areas. It makes two main arguments in this regard. First, the chapter argues that there is a need to consider alternatives to the narrow contemporary focus on the functions and operations of foreign lead firms as a strategy for economic development. Second, amid an increased spatial reorganisation of production relations with the shift of global manufacturing from the global North to the global South, further research is needed on whether a new phase of development led by Southern actors provides an alternative to the hegemonic politics of the global North.

2. Global institutional power and the spatial organisation of production networks

For almost two decades Global Production Networks (GPNs) have been among the most widely used explanatory frameworks for tracing and understanding the system-wide dynamics involved in coordinating the global market engagements of firms (Neilson et al 2014). And yet despite the widespread circulation, adoption and adaptation of various iterations of this framework to explore different aspects of production organisation, there remains an absence of work focused on the role of global institutional policies in supporting the organisation of firms into production networks and setting the terms for their participation in global production. This chapter theorises the role of development agencies and institutions in the organisation and coordination of production relations, specifically in creating the "(dis)enabling environments for articulation into GVCs and GPNs" (Neilson et al 2014, 3).

This chapter argues for a relational policy assemblage framing of global institutional power, one of three forms of power that form the foundation of GPNs in the GPN conceptual framework (Henderson et al 2002, 448). An assemblage interpretive framework accounts for both the shaping role of forms of knowledge that dominate the global institutional landscape in the organisation of GVCs/GPNs, as well as the context-specific dynamics that provide the conditions of possibility for enacting such arrangements.

The chapter's central argument is developed in three sections. The first section emphasises the necessity of taking global institutional policymaking seriously in GPN research. It proposes an assemblage framework as a research tool to understand the power of global institutions in GPN studies and as an alternative to the existing GPN network methodology used to conceptualises the organisation of firm relationships. This section also discusses the theoretical contributions of this work. The second section outlines the features and defines the key concepts of a policy assemblage interpretive framework as it is used in this work. Drawing on social-spatial theory, the final section provides a conceptualisation of space that is theoretically consistent with the claims of this work, that global institutional knowledge regimes reconfigure economic relations by imposing new spatial practices. Based on this conceptualisation, economic zones are cast as spatial forms where physical space performs (GVC/GPN) relations specified at the discursive level.

Together, the three sections of this chapter outline an assemblage methodological-analytical approach to spatial-economic policymaking in the context of a GVC/GPN-oriented development agenda. The approach presented provides a conceptual framework that will guide empirical analysis in the coming chapters.

2.1. Attending to global institutional power in Global Production Network research

As a conceptual model for analysing the global market engagement of firms, the GPN framework details the multiple, interacting and changing power relations that contribute to the constitution of production networks (Figure 2.1.). The main sources of power included in the model are the power of lead firms, national and local state actors, and collective agent, such as trade unions, employer associations and NGOs concerned with human rights, environmental concerns etc. (Henderson et al 2002, 451). While these forms of power have been extensively addressed in the literature, less attention has been paid to what authors within this research field have described as the original basis for organising the activity of firms, the global institutional contexts of, and influences upon firm activity (Henderson et al 2002, 439). In their dominant position as knowledge-producing centres of development and policy, global institutions like the World Bank, the IMF and the World Trade Organisation shape the terms and conditions for incorporation into GVCs/GPNs. These institutions generate and disseminate the standards that regulate relations between capital, labour, law and state power, framing GPNs and fixing them according to a particular logic (McGrath 2018, 519-520).

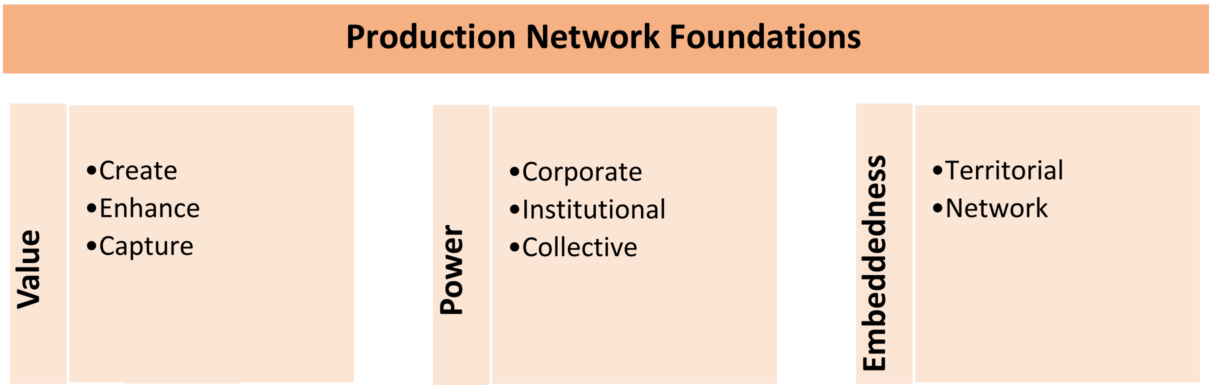

Figure 2.1. Global Production Network (GPN) Framework (Source: Henderson, et al 2002)

This research is broadly situated within literature on GPNs. Alongside focusing on the sphere of exchange relations and circulation (buying and selling in arrangements led by lead firms), however, it also tackles the theoretical claims of the GPN framework. The research demonstrates how models, policies and initiatives proffered by global organisations have facilitated new market arrangements, enabling the fragmentation of production processes and the distribution of different production stages across multiple geographical locations. It proposes providing greater analytical space in the GPN framework to the role of institutional knowledge frames and their dynamic effects in shaping relations of exchange and in provoking broader change. The research details the particular role of spatial planning policies in enabling GPNs. These policies impact the decisions of a range of economic and non-economic actors in GPNs, and that are essential to facilitating and organising the relations of the market.

GPN analyses that have addressed economic development policymaking as a key element of the framework have largely focused on the institutional context at the national or regional level in which firms, to varying extents, are embedded. This includes the influence of state agencies at the national and local levels, and international interstate agencies such as the European Union, NAFTA and ASEAN (Barrientos 2011; Coe and Hess 2013; Henderson et al 2002, 450; McGrath 2018, 510; Neilson 2014; Smith 2015; Yeung 2008). In particular, significant attention has been given to the capacity of national states to influence private firms, either positively framing such interactions as serving the interest of development and industrialisation, or critically, as evidence of the realisation of different forms of capitalism (Henderson et al 2002, 437). In a way, these contributions resemble the work of economic geographers who investigate variations between *territorialised* capitalist systems by examining how closely they adhere to either a perfect market model on one hand or one coordinated by formal state institutions on the other (what is known as the varieties of capitalism literature) (Berndt and Boeckler 2012, 6).

As noted by Baker and McGurik (2017), “the use of blunt, pre-determined spatialities…tend[s] to reify and presume the primacy of the nation-state via ‘methodological nationalism’” (Baker and McGuirk 2017, 435). This, despite the fact that the network discourse that is central to Global Production Network theory implies the rejection a zero-sum conception of power in that neither interstate agencies nor the national state nor even lead firms practice a monopoly on corporate power (Henderson et al 2002, 450). Thus, while recognising the role of hegemonic knowledges in organising GPNs this research considers a core contention of the GPN framework that “the dynamics of power and knowledge between actors and institutions are understood in a multidirectional and non-deterministic fashion” (Henderson et al 2002, 442). The present research views the capacity to exercise power, to enact the forms of knowledge that reflect the ideological commitment of central institutions as occurring within diverse, situated configurations of actors and power relations that impact the decisions of firms in GPNs.

The relational perspective on economic policymaking that assemblage provides foregrounds the diverse geographies of policy while also bringing to light what lies outside the boundaries of the market and beyond formal evaluations of policy. It recognises policy models that provide a basis for market-oriented forms of development as theoretical abstractions that “safely guard the boundaries between the outside of real society and the inside of economics” (Berndt and Boeckler 2016, 3). Market-oriented policy work meanwhile serves to format the forms of inclusion-exclusion upon which markets depend to function and grow in concrete settings (Bair and Werner 2011, 1013). As a conceptual tool therefore an assemblage framework provides the opportunity to bring the forms of marginality and exclusion that development initiatives provoke into the analysis of policymaking in a way that relational analysis in standard GPN research -which is focused on the embeddedness of market relations and emphasises the ability of public interventions to effectively coordinate markets - does not allow.

Following from the above, this thesis makes three interventions in GPN research. First, it argues for the need to consider the ways in which the global institutional context influences GPN organisation. The research finds that development policies can only partially, not fully be understood as artifacts of national political and policy contexts. As key interlocutors for economic globalisation, global institutions are implicated in constructing ‘circuits of truth’ to enable the geographic expansion of global capital (Roy 2010). They diffuse the principles, norms and metrics that governments adopt, and that facilitate and organise the strategic coupling of domestic economic actors with global lead firms, enabling production networks to form and reform across space.

The second contribution of this work to GPN literature is to introduce an assemblage methodological-analytical strategy to complement the relational concept of embeddedness that is central to the GPN framework, based on a critique of how the latter has dealt with question of contingency. The concept of embeddedness represents an attempt by GPN authors at a corrective to the earlier production integration models of Global Commodity Chains (GCC) and Global Value Chains (GVC) (Bair 2008; Coe et al 2008). Incorporating embeddedness into the analysis of interfirm-relations improves on these approaches by bringing a greater diversity of economic and non-economic actors, relations and intermediaries into view in analysing production organisation. Embededdness also helps to balance the exaggerated emphasis on the transnational, and often systematic nature of economic activity by grounding such activity socially, politically and economically (Bair 2008; Yeung 2008, 21, 31). Through the lens of embeddedness inter-firm relations are conceptualized as relational rather than in top-down structural terms, "emphasizing interaction between multiple actors rather than external domination and control" (Mackinnon 2012, 230). In this respect incorporating the concept of embeddedness into the analysis of market integration shifts the scope of analysis from linear, discrete interfirm relationships to a focus on geographically specific actor strategies and network organisation.

While useful, the concept of embeddedness has been criticised for its over territorialised, over-socialised view of production relations (Hess 2004; Weller 2006). Embeddedness situates relations between firm and non-firm actors in *local* institutional or socio-spatial context in a way that is anathema to the extra-local scope of GPN research (McGrath 2018, 515). The micro-sociological view that embeddedness engenders also promotes a false separation between the economic and non-economic, undervaluing 'structural' influences (Weller 2006, 1250) and failing to consider wider political economic dynamics at play in analysing domestic processes of economic restructuring (McGrath 2018, 515). Incorporating a concern with the global context into GPN research demands that relationality is thought of in terms of linkages and associations among diverse, but also distanciated groups of actors and factors (Baker and McGuirk 2018, 428). Approaching relationality through the lens of assemblage, rather than embeddedness, opens up space to discern interactions, associations and entanglements beyond those stored in a particular scale or setting. Assemblage incorporates additional non-localised actors, factors and interactions into the analysis while giving equal attention to the grounded contexts in which policy processes unfold.

The third intervention of this work is contributing to accounts that bring a critical perspectives in development to bear on the GPN literature (McGrath 2018). In this respect the present research draws on the disarticulations perspective within GPN research (Bair et al 2013; Bair and Werner 2011a; Bair and Werner 2011b; McGrath 2018; Murphy 2019; Werner 2019), which situates the analysis of global production networks itself "within critical theorisations of globalisation and development" McGrath 2018, 517). The notion of disarticulation was redefined by Bair and Werner (2011a) to describe the engagement between capital accumulation and the people and places provisionally externalised from its relations (Bair and Werner (2011a, 990). The authors proposed the disarticulations framework as a lens to address "the reproduction of uneven geographies of capitalism as they relate to processes of incorporation and exclusion from global commodity circuits", and to foreground a history of different forms of dispossession, displacement, devaluation and marginalisation that have accompanied global market integration (Bair and Werner 2011b, 1000).

The authors argue that a disarticulations perspective is necessary on the basis that GPN and Global Commodity Chain (GCC) studies exhibit an 'inclusionary bias' (Bair and Werner 2011a, 989). Similarly other critical development scholars argue that these frameworks trace participation in networks while 'excluding' the exclusions, dislocations and expulsions that underpin the shifting geographies of global production from the picture (McGrath 2018, 517).

In centring what lies outside the boundaries of the market, disarticulations responds to GPN authors who embrace broadly heterodox orientations, and advocate active, market-constructing types of interventions supported by states in GPN development (Werner 2014 1228). These authors argue that correct types of regional institutions will manage to coordinate supplier-linkages effectively, or more effectively than firm governance, allowing local firms to upgrade (Ernst and Dieter 2002; Dawley et al, 2019; Humphrey and Schmitz 2002; MacKinnon 2012; Yeung 2008). Such thinking is based on a heterodox view of development where distribution and more secure rights for workers presumably follow firm upgrading and economic growth. Disarticulation authors on the other hand maintain that the GPN-linked notion of upgrading focuses too narrowly on firm-level competitiveness (Werner 2014, 1224). Upgrading meanwhile serves to format exclusions across space, as a result of uneven development, and also across time, through the necessary processes of contraction and decline experienced by locations locked into the strategic interests of global lead firms once they are delinked from global networks.

The approach outlined above problematises normative arguments around GPNs/GVCs, bringing into view the limited representational capacity of ideal-type production system models and firm-centric scholarship. The proposed framework shows that a global landscape marked by the dispersion of supply and production chains and the dominance of multinationals is viewed as actively constructed. On the one hand, this landscape is the outcome of ideas about development aimed at controlling the flow of resources, markets and decision-making. This mainstream notion of development is confined to processes of value creation, capture and enhancement by firms. Notions of economic improvement are linked to what firms produce how they produce it and the linkages that develop between them (Berndt and Boeckler 2016, 8). On the other hand multiple capacities, agencies, political projects, and crucially, the particular associations forged around technologies and texts and that are always evolving in form (Murdoch and Marsden 1995, 372) are implicated in, and responsible for enacting processes of market development.

2.2. An assemblage perspective on institutional power in Global Production Networks

A policy assemblage methodological-analytical framework acknowledges both knowledge and agency as key components of policymaking, highlighting processes and power relations that are wider and more diverse than those enacted by hegemonic forms of discourse or enabled the structured processes of the market. A policy assemblage approach conceptualises policies as circulating forms of knowledge that serve to standardise particular practices and modes of development. These knowledges are enacted in dynamic and complex arrangements that weave together a multiplicity of causal factors. (Prince 2010, 174). Rather than following predictably from abstract rationalities, policy pathways are therefore contingent in their effects on the imperatives of the actors and forces involved in constructing them (Baker and Mcguirk 2017, 435). An epistemological concern with multiplicity in the assemblage framework thus allows for the incorporation of the situated political and material conditions that are constitutive of policy processes, and that reflects the varied, dynamic contexts and effects of policymaking (Baker and Mcguirk 2017, 435; Savage 2020, 325).

Using the lens of assemblage, institutional power in GPNs is conceptualised as operating between the centrality of global institutions and the knowledge regimes they promote on one hand, and the multiplicity of actors and process through which policies are translated on the other. In economic policymaking centrality of global institutions is linked to their positional dominance as power nodes of policy and development, exercising their influence by equipping economic and government actors with models, frames and ways of operating that organise and perform real markets to correspond to their vision of development (Callon 2007, 324). In the context of GVC/GPN-oriented development in particular, hierarchal forms of knowledge -

policies and technical systems – play a role in controlling circulation and performing the new arrangements of the market under this form of economic globalisation. Critically this includes developing and promoting spatial development policies and practices aimed at enacting production system models that impact how production relations are ordered.

On the other hand, a concern with multiplicity in economic development policy-making entails mapping the dynamic unfolding relations through which circulating forms of knowledge are enacted, firm access concretely negotiated, and the dynamics of inclusion-exclusion are constituted in situated contexts. Policy processes articulate the diverse capacities, identities and, agendas of the range of actors performing the arrangements of the market, and the conceptual tool of assemblage helps to contextualise socio-spatial change (Baker and Mcguirk 2017, 435). In particular the concept of multiplicity -or distributed agency- affirms the need to take into account the agency of domestic actors and to recognise the various political projects and possible emerging trends implicated in processes of marketisation. This concept demonstrates how a variety of different strategies, such as militarisation and land commercialisation, become the conditions under which locations are integrated into production networks led by Chinese firms, and reflects emerging trends beyond those that standard production system models are capable of capturing.

Bearing on the interplay between centrality and multiplicity, this thesis advances the idea that the forms of knowledge implicated in constructing the architecture of global circulation cannot be considered separately from the relational technopolitical dynamics at the point of production that uphold and enact processes of the market. The process of organising firm relations is thus entangled in processes and power relations that are wider and more diverse than the structured processes of the market or circuits of accumulation by political-economic elites. These processes impact the strategic coupling of firms and result in dynamic and often contradictory effects that are not captured in systematic types of research on global production organisation. The main argument that emerges from this tension is that power/knowledge in development functions relationally through dynamic, complex and emergent associations between situated actors. Thus what is referred to as global institutional power in GPNs is in fact a relational form of power, contingent in its effect on the enrolment of situated actors into the policy process, and involving complex struggles and interactions as it performs the arrangements of the market (Murdoch and Marsden 1995, 372).

2.2.1. Policy assemblage: Influences and application

As a conceptual construct the assemblage framework emerged as part of a broader ‘relational turn’ within critical social science. The assemblage approach can be located among other frameworks that have developed to contextualise processes of social change. Taking the work of Giles Deleuze and Felix Guattari on ‘agencements’ as a conceptual foundation, and situating itself in relation to actor-network theorists such as Michel Callon (2007), Bruno Latour (1999) and John Law (1999), assemblage advances the notion that action is only made possible through the coming together of various agents and elements that form the ‘agecenment’ or assemblage. As described by Callon ‘agencenments’ are “arrangements endowed with the capacity of acting in different ways depending on their configuration. This means that there is nothing left outside *agencements*: there is no need for further explanation, because the construction of its meaning is part of an *agencement*” (Callon 2007, 320). In other words, assemblage rests on the notion that a configuration of elements bound together within a situated context determine the identity and effects of particular phenomena depending on the properties of the elements included, though they might transcend scalar boundaries and divisions, stretching across space.

In theorising the process referred to by Çalışkan and Callon (2010) as economisation or 'marketisation', the work of performativity scholars (Berndt and Boeckler 2012; Callon, 2007; Mackenzie et al, 2007) informs assemblage analysis by accounting for the role of knowledge regimes in extending the "principles of market transaction" (Berndt and Boeckler 2016, 1). Closely related to Actor Network Theory (ANT), performativity views markets as actively constructed within arrangements of actors, calculating devices, and forms of scientific knowledge. Performativity claims that, rather than passively portraying or describing reality, economic models have the capacity to change the world so that it actively fits those models. Economic knowledge in the words of Callon, "performs, shapes and formats the economy, rather than observing how it functions" (Callon 1998, 2). Other influential contributions to assemblage come from institutionalists, who give formal state institutions a more prominent role in formatting, and sometimes coordinating markets, arguing that contractual market exchange relies on rule setting and sanction enforcement (Berndt and Boeckler 2012, 4).

Drawing inspiration from these traditions, assemblage attempts to make theorising the production of markets more realistic, reflecting on market-making in a way that does not suspend any of the prior theories of modernity but incorporates them into the analysis (Berndt and Boeckler 2012, 7). The realisation of markets brings together performativity's concern with knowledge operating through technical devices in transforming the world - highlighting the supporting role of rules, regulatory bodies and formal institutions - with ANTs focus on a complex of network relations and distributed agency to gain an understanding of how markets are actively constructed and how they organise the circulation of goods in diverse contexts. In Callonian terms assemblage views markets as socio-technical 'agencements' -arrangements encompassing people, things and technical devices- that interactively and collectively determine products, prices and places of exchange (Callon 2007).

The application of assemblage thinking in the interdisciplinary field of critical policy studies provides a fresh geographical perspective on the study of economic policymaking. Thinking both topologically and relationally with regards to spatial and economic restructuring redefines the way that political-economic and economic geographic change is understood. Thinking in terms of distanciated associations provides an alternative to narratives of state restructuring in the study of globalising policy regimes (Baker and McGuirk 2017; Collier and Ong 2007; Gorur 2011; McFarlane 2011; Prince 2010; Savage 2020). Thinking in terms of associations also offers "a way of revealing, interpreting, and representing the spatially, socially, and materially diverse worlds of policy and policy-making", foregrounding the multiple determinations of phenomena (Baker 2016); Baker and McGuirk 2017, 429).

The engagement of human and economic geography with assemblage is also relevant to the present research as it works to underscore the importance of socio-material formations and the topological spatiality of territory, shedding light on the interaction of diverse factors in the production of social or spatial processes and phenomena (Anderson et al 2012; Colliers and Ong 2007; Muller and Schurr 2015; Savage 2018).

A proposed incorporation into the GPN framework of the dynamic and relational assemblage lens would help to make visible aspects of production organisation and economic restructuring that are occluded by GPNs current relational framework. GPNs relational lens aims at "reembedding exchange into networks of social relations", attempting to reverse the neoclassical view of the economy as a technocratic domain (Berndt and Boeckler 2012, 4). By adopting a micro-level perspective that emphasises the role of the social networks in which buyers and sellers are embedded in making relations of exchange possible (Muller 2015, 72), GPN responds to accounts that "isolate economic development from the "social, cultural and environmental dimensions of human existence" (Mcgrath 2018,15). But the embeddedness interpretive framework's view on how firms organise and how value is produced restricts the understanding of power relations in GPNs to those between a predefined set of actors, with an emphasis on the role of state organisations (Hess 2018, 3). Alternatively, a proposed analytical framework for GPN that employs the more dynamic assemblage framework highlights aspects of economic restructuring that are not captured by predefined models, that are unfolding beyond the macrostructures of state or market, and that are often concealed by the hegemonic position of both of these categories.

2.2.2. Core concepts: Centrality and multiplicity

Using the concepts provided by assemblage, a proposed framework for theorising institutional power in GPNs views the latter as operating between the centrality of global institutions and the hierarchal knowledge they produce on one hand, and the multiplicity of actors and process through which policy knowledge is translated and enacted on the other. In the development of GVC/GPN-linked zones, centrality operates through the diffusion of ideas, expert practices and technical systems for governing, using and developing land, constructing the economic-geographic realities that are necessary to facilitate the free flow of goods and capital. Multiplicity highlights the multiple determinants, identities and, agendas of the political actors enrolled in the policy assemblage, including the convergence of international business and military interests in the Egyptian context, emphasising three aspects of these relational association. The concepts of centrality and multiplicity will be discussed in detail below.

Centrality

Chapter 3 discusses the central and powerful institutions of international development that generate knowledge and forms of expertise around organising the global economy. It demonstrates empirically how these institutions create consensus on standards and norms that are then taken up by firms and national governments alike. Assuming the role of the "trustees of development" (Roy 2010, 29), organisations like the World Bank and the Organisation for Economic Co-operation and Development (OECD) are involved in producing and circulating "elements of meaning" by virtue of which the field of information available to economic and non-economic actors is structured and modified. It is, as Roy notes, "from this very particular location" that "a set of "universals"—to borrow Tsing's (2004) term—are generated and disseminated" as a solution to a country's economic problems (Roy 2010, 36). Such 'knowledge products' articulated in reports and strategy documents act discursively and materially to define fields of economic and political action (Foucault 1982, 780). Of relevance are frames of knowledge and action on production integration, and associated notions of upgrading and firm-led development devised in the technocracies of Washington institutions, global development agencies and intergovernmental organisations such as the OECD. These knowledge frames have underpinned the dramatic expansion of globally-linked economic zones in recent years.

Global institutions therefore effect change in the practices of economic actors by promoting certain ideas, norms, and ways of thinking on economic development(Roy 2010, 59). As Henriksen notes however, ideas and assumptions about the market do not in themselves effect change, but rather, circulate globally through their inscriptions in the technical devices and market institutions with which actors are equipped (Henriksen 2013, 406). Centrally developed and diffused technical systems, methods and devices facilitate the material practices that bring abstract policy ideas into being, defining and delimiting particular policy objects and transforming them into 'global form' (Prince 2010, 169).

To create business-enabling environments for integration into GVCs/GPNs, technical systems rooted in the theories and ideas of neoclassical economics transform the physical, functional and organisational dimensions of space with the objective of creating the conditions for firm-led development. These systems are classified under two policy areas discussed in further detail in the coming chapters: land governance mechanisms, including incentives structures targeting investors and land-use management techniques, and infrastructure policies. These technical systems are ratified as a universal standard for development practice under GVC/GPN development, their seemingly neutral norms, methods, metrics, and rationally selected best and institutional practice of spatial planning becoming widely accepted and applied across diverse contexts.

Technical expertise ensures that the object of the policy being transferred is given new meaning and transformed into the closest approximation of an abstract model of itself. In constructing the economic-geographic representation of an economic zone, the policy object, space, is modified, rearranged and reassembled according to the standards and specifications of a universal model for transnational spaces and regions. Space's physical form, land, is 'disentangled' from the relationships in which it is embedded, altered according to technical standards and classified through such discursive activities of meaning making as liberalised, productive, and competitive, distinguished from the spaces that fall outside of the limits of the global market and that might encompass alternative modes of economic life. In the process of reconfiguring and reframing space, its form and utility are stabilised across a range of social contexts. Space is thus transformed into global form universal to different places (Prince 2010, 173), capable of acting as a node in a global network of spaces and regions linking trade, production and financial flows.

In working to format and organise new ways of life to replace existing arrangements, centrally diffused and globally circulated technical interventions reconfigure objects and locations to enact processes of capitalist transformation, marketisation and globalisation. The forms of expertise implicated in the planning of economic zones, that enable reorganization of space for trade openness, production disaggregation and firm-coordinated development serve as a mechanism to move locations from outside to inside the market, advancing new practices and ordering new outcomes under contemporary global capitalism. These expert practices transform and reorganise existing economic processes into ones that had not previously existed (Callon 2007, 163) impacting how production relations are ordered and imposing new systems of circulation and control (Mitchell 2002, 210). Far from being 'neutral' therefore, forms of technical expertise and best practices of rational spatial planning are deployed in order to extend the values and ideas of the market.

Employing the central methods calculation, classification and reconfiguration that economics provides, normative mainstream development frames construct then overlook the exclusions, differentiations and entanglements that are implicated in the organisation of social life and the implementation of policy programs. As Mitchell notes of the theoretical abstractions and ideal types that animate spatial policymaking, "neo- classical economics then serves a key purpose. Among other things, it helps perform the operations that Callon calls "framing" or "disentangling""(Mitchell 2007, 244). To 'frame markets' is to organise, manage and demarcate the objects and spaces that lie inside or outside their bounds. Employing the notion of framing in policy assemblage (2020) refers to the "bracketing out of view the social life of policy and/or the complexities of components that a policy intervention deals with" (Savage 2020, 322). Acting as a vector for neoclassical rationalities therefore, and promoted by "those with the power to set the agenda" (Roy 29), universally circulated and applied technical systems format the types of inclusion and exclusion on which markets depend "to exclude things, to leave certain costs or claims out of the calculation", and "to deny responsibility for certain consequences" of the arrangements they create (Mitchell 2007, 244).

Multiplicity

An assemblage analytical approach embraces a 'discursive formation' interpretive framework (Murdoch 2006, 31) while also reflecting dissatisfaction with language-oriented theory (Feely 2020, 176). Assemblage's proponents argue that a framework that engenders a broad and 'inclusive' understanding of objects as discursively constructed may be seen as tacitly acknowledging the force of the universal, without fully attending to the significance of time and place (Murdoch 2006, 30). While to some degree discourse analysis does take into account spatiality, subjectivity and materiality, it nonetheless privileges discourses and the wider knowledge systems to which they belong (Feely 2020, 175; Murdoch 2006, 40). Similar to other 'systemaic' kinds of social science that seek to identify the 'generative mechanisms' of social change, discourse analysis explores how discursive regimes -ways of knowing and thinking that make up specific domains of knowledge and practice - shape the contours of social, economic and spatial formations in fixed and totalising ways (Feely 2020; Murdoch 2006, 6, 30).

An assemblage approach attempts to address the perceived shortcomings of discourse analyses by incorporating an epistemological concern with multiplicity. Multiplicity refers to the variety of forces, agencies and relations involved in the movement and diffusion of ideas (Baker and Mcguirk 2017; Prince 2010; Savage 2018; Savage 2020). It is attentive to both discursive and non-discursive forces impacting the articulation of global knowledge forms in specific locations. Emphasising relationality, assemblage thus connects notions of power/knowledge to the realm of multiple relations and multiple spaces, taking into account materiality, embodied experience and the complexities of social life. The core assumption of multiplicity, according to Baker and McGuirk (2017) reveals "'the practical co-existence of multiple political projects, modes of governance, practices and outcomes' that, for the most part, had gone unnoticed in accounts quick to assert the salience of neoliberal determinants" (Baker and McGuirk 2017, 431).

The present research prioritises assemblage's concept of multiplicity in analysing the organisation of global market activity. On one hand the sites of knowledge production where narratives of development are produced disseminate concepts, policies and models of planning that position firms to become the key arbiters of development and allow production networks to form and reform across space. Rather than operating mechanistically or in a top down manner however, knowledge systems are enacted by situated actors, relations and resources, producing context-bound transformations. Further, the stability and structure of production networks is not pregiven, but rather emerges as the effect of open and dynamic relations between diverse entities (Murdoch 2006, 23). The exclusionary, constraining and power-inflected ways that orthodox inquiry shapes and orders the surrounding world are expressed through these relations.

Assemblage accounts differ with regards to which actors and processes are prioritised over others. Deciding which elements to prioritise and which to exclude depends on their relative influence within a given arrangement. The present research highlights the multiple political agendas underpinning a particular mode of ordering and planning. While policy assemblages are both technical and political (the technical including both discursive mechanisms and non-discursive or technical practices used to effect change), it is not enough to consider the 'political' in terms of the imperatives, strategies and resources of 'global' actors. Such a perspective would place extreme limitations on what we think of as the political, concealing pre-existing agencies, systems of meaning, modes of practice and forms of contestation within grounded locations. Because the enactment of policy knowledge is the "product of multiple determinations that are not reducible to a single logic" (Collier and Ong 2015, 12; Henriksen 2013, 407), it is crucial to 'follow the actors' to identify the source and nature of the agency that enables exchange relations (Henriksen 2013, 409; Latour 2013). In this respect, multiplicity affords an understanding of the political that extends beyond the imperatives of those who "proffer such a discourse", in reference to globally circulated policies (Roy 2010, 55).

Accordingly, the implications of multiplicity for understanding power, particularly institutional power in Global Production Networks, are significant. Multiplicity advances a concept of power as being "composed relationally through the interactions of the different actors involved" (Savage 2020, 328). In other words, power is not embedded in hegemonic discourse, nor does it radiate from a central location. While central institutions can and do change behaviours and norms through the production and dissemination of new meanings, standards, and practice, achieving desired outcomes relies on the capacity of institutional actors to enroll other actors into the policy assemblage, forge consensus and align actor around a single objective (Savage 2020, 322). This task is neither certain nor predetermined. Rather, as chapter 7 demonstrates in detail, it is contingent on the range of (political) actors that have been mobilised to join the assemblage to achieve their own desired outcomes (Muller 2015, 74; Savage 2020, 322). Rather than being hierarchally produced, therefore, new practices emerge from strategic relationships, negotiations, associations and interaction amongst the actors incorporated into the policy assemblage (Callon 1984; Henriksen 2013; Muller 2015, 70).

What is referred to as global institutional power in GPNs is therefore in fact a relational form of power, or, as Murdoch and Marsden argue an *effect* of collective action (Murdoch and Marsden 1995, 372). Multiplicity thus allows us to "avoid relying on a conception of power or structural domination which exists outside concrete situations" (Murdoch and Marsden 1995, 371). Further, when institutions manage to mobilise other actors to participate in their projects, power is consolidated not through force but through consent. Multiplicity therefore prioritises the complexity of mechanisms of power and its capacity to enable multiple desired effects, providing a suitable lens with which to explore a global economy shaped not by singular lines of causal determination (Baker and McGuirk 2017, 430), but by complex, contested and emergent processes and relations (Swyngedouw 2004, 30).

By foregrounding multiple associations, the positional dominance of institutional actors within a specific network arrangement is explicitly recognized, but "without imposing on them an a priori definition of their world-building capacities" (Latour 1999, 20). On the one hand, multiplicity reaffirms the argument that global relations are not free of asymmetry. Centres of policy and economic power in the global North continue to retain a disproportionate amount of power and resources, and world relations continue to be characterised by various forms of domination, exploitation and control. But, on the other hand, assemblage rejects the jargon of western dominance when discussing global-scale development policies based on the notion that power does not have an a priori existence that precedes the formation of the assemblage.

Three relevant aspects of the concept of multiplicity used to frame the empirical content of this research are highlighted below. These are the translatability of policy, distributed agency and emergent properties. These concepts have been adopted by and utilised within policy assemblage scholarship to describe the ways in which policy processes unfold within situated contexts. The translatability of policy indicates that institutional power is contingent on the enrolment of situated actors into the policy process, and involves complex struggles and interactions as it performs the arrangements of the market. Distributed agency affirms the need to take into account the agency of domestic actors, addressing the debate of external control of economies and recognising the various political projects and possible emerging trends implicated in processes of marketisation. Emergence captures the uncertainty and unpredictability rather than determinism of decision-making pathways.

The translatability of policy programs

As noted, assemblage views policymaking as more than merely a technoscientific process, but rather as a process that is both technical and political. Further, policy processes are contingent on the capacity of key policy actors to enlist a range of actors with diverse motivations and agendas, and ensure their interests can only be pursued within and through the network under formation (Callon 1984; Muller 2015, 70; Murdoch and Marsden 1995, 372)). The process of aligning a range of network participants whereby assembled actors begin acting as a single agent, is referred to as translation (Callon 1984). Defined by Muller as a "a process of alignment to achieve something and enable action", translations are what make policies workable, allowing "the model of the world becomes the world of the model" (Muller 2015, 71). Though it originated in the field of sociology (See Callon 1984), the concept of translation has been subsumed in the assemblage lens to map out and describe the interactive processes of composition through which assemblages are established and come into being as complex wholes (Savage 2020). Ultimately, this concept helps bring to light embodied processes through which form emerges and may endure (Anderson et al. 2012, 174)

The concept of translation is useful for the present research as it foregrounds the complex relations and diverse imperative underpinning policy programs as well as the negotiated processes through which assembled arrangements of actors mobilised around these programs are made to cohere. Translation captures the dynamics described in the empirical content of this research where the alignment of diverse actors and agendas around a single objective often proceeds in a non-orderly and contested manner, producing unintended consequences as ideas advocated by central actors are enacted within a network of hybridised imperatives. As the forthcoming analysis will show, in the coming together of various agendas, the particular actors that are included or excluded determine the shape of the assemblage and the range of its effects it.

Applying a translation perspective requires identifying the actors, understanding the systems of meaning and following the networks through which policy is implemented. It also entails tracing the processes by which actors are recruited and successfully aligned around a particular policy objective, allowing policies to be stabilised and become a valid claim (Muller 2015, 70). It is by converging around a particular objective or that policy translations become successful (Savage 2020, 322). Extending networks by widening the circle of supporters and participants (including practitioners, experts, scholars, civil society organisations, academic institutions, consulting firms and within political and cultural circles) renders the relevant assumptions ideas and policy systems unproblematic, guarding against contestation.

The distributed nature of agency

The concept of multiplicity denotes a formation of heterogenous associations where agency is distributed among a range of assemblage participants (Anderson et al 2012, 186; Baker and McGuirk 2017, 432). Often used in reference to hybrid collectives of material, technical, human and logistical elements, it can nonetheless also be used to emphasise the diversity of political relations that are enclosed within an assemblage (Allen and Cochrane 2007; Painter 2010). Distributed agency in this research refers to various 'social' contexts, emphasising diverse political agencies, interests and projects that animate policy processes ((Murdoch and Marsden 1995). Employing the notion of distributed agency allows us to view receiving locations as active components of a policy assemblage rather than passive recipients. According to this logic, a given policy process does not have a single pregiven identity, rather its character arise from the interactions and articulations of multiple imperatives and relations (Murdoch and Marsden 1995, 369),

The notion of distributed agency allows us to see how narratives of local politics, such as militarism and securitisation in the Egyptian context, relate to global concerns. Failing to take these dimensions of policy seriously risks excluding complex spatial politics that animate and underpin processes of market-led globalisation, and the relations, practices and power dynamics through which systems of domination and exploitation are enacted. Further, a fundamental argument of assemblage is that because assemblages are subject to the influence of multiple determinants, agendas and rationalities, each context is modified by the way it is allied with other collectives. The strategy of a particular political actor in a given location depends not on their intrinsic national characteristics, but on the particular leverage points of the location and actors they are allied with and the interactions that follow, which may differ drastically across contexts. Distributed agency therefore implies a form of particularity or contingency that does not denote historical difference -though national context does indeed matter- but rather complexity as a feature of societies, states and markets (Murdoch and Marsden 1995, 370).

Distributed agency brings an different perspective to studies on economic policymaking than the types of analysis that remains fixed around outdated spatial categories. Thinking in terms of multiple sites and agencies challenges conceptions of divided, bounded and enclosed container spaces with identifiable centres, and asserts the need for a network-based conceptualisation of spatial relations (Marston 2000; Marston et al 2005; Moore 2008; Moiso and Passi 2013; Springer 2014). This way of thinking is particularly relevant to understanding the reconfiguration of economic activity from national economies to tightly coordinated networks engaged in cross-jurisdictional value activity in the production and exchange of goods and services (Yeung and Coe 2014, 31). In the context of such transformations distributed agency is a useful concept to incorporate in the analysis of cooperation initiatives, development partnerships, strategic couplings and other modes of organising global economic relations that challenge and transgress the boundaries that separate and define scales.

Emergent and irreducible properties

Applied to policy research, the notion of emergence expands and builds upon the relational concept of multiplicity. Emergence implies that policies and their outcomes are product of continuous processes of active composition, arranging and organising, and disassembly and reassembly within the assemblage. Assembled formations are viewed as being formed of a multiplicity of heterogenous elements that are brought together in particular strategic relations at a particular moment in time. The different components of an assemblage interact in a way that gives the formation its particular traits and characteristics. Emphasis is placed on the role of specific actors and the associations that emerge between them, recognising in particular that "the relations forged may sustain such practices, erode them or transform them" (Mcgrath 2018, 517). The "connecting, combining, and aligning relations between heterogeneous elements" is continual, indicating that assembled connections are neither static or relationally closed, but are in a constant state of (re)composition (Baker and McGuirk 2017, 428).

The assumption that the complexity of assembled formations goes hand in hand with their continual transformation and emergence comes from assemblage's use of Deleuze and Guattari (1988) as a foundation (Anderson and McFarlane 2011; Baker and McGuirk 2017; Muller 2015; Savage 2018). Using the terms developed by Deleuze and Guattari, the 'deterritorialization' and 'reterritorialization' of entities renders them continually in flux, lacking in essence and emergent (Baker and McGuirk 2017, 431). Existing assemblages may be disrupted and reassembled when new elements are added or removed. Tracing the associations and processes through which policy arrangements come in and out of being can help gage their 'success' and "their (never pre-determined) effects".

The focus on active composition reasserts the claim that policy outcomes are relational products assembled through multiple actors, histories, resources and socio-materialities and that alternative acts of assemblage and translation can produce different results based on who is included. Stressing that the process of constituting assemblages can only ever be provisional, Anderson and McFarlane (2011) argue that "relation may change, new elements may enter, alliances may be broken, new conjunctions may be fostered. Assemblages are constantly opening up new lines of flight" (Anderson and McFarlane 2011, 126).

2.3 The active role of space in organising social relations

This thesis highlights the central role of global institutions and the knowledge regimes they generate in promoting spatial interventions to enact GVC/GPN development. Underpinning this understanding of the role of global institutions in organising spatial-economic relations is the theoretical argument that physical space performs social/economic relations specified at the discursive level. This section provides a conceptualisation of space that is theoretically consistent with the claims of this work, that global institutional knowledge regimes reconfigure economic relations by imposing new spatial practices. This conceptualisation recognises the instrumental and operational role of space in facilitating exchange relations (Lefebvre 1991, 11), which has rendered it a key site of global institutional intervention and social contestation.

Drawing on spatial critical thinking, space is seen as a critical foundation of social change, as actively constructed rather than given, and as relying on prevailing relations of power and knowledge forms for its existence.

The thinking around space as actively constructed is rooted in the ideas of ‘spatialising’ voices in critical social science (Soja 1989, 16). Of relevance are authors who recognise the centrality of space to economic policymaking, and broadly view space as socially produced. The concept of socially produced space is founded on two dialectically related factors. First, that space is not an impartial container of social action, but is dependent on the processes, relations and knowledges that go into making it. Second is the agency of space itself. Space that is socially produced is not neutral, inert and static but is constitutive of social relations.

On the first point, there is a recognition of the crucial role that systems of power, backed by knowledge and technical expertise, play in constructing space. Underpinned by normative methods, logical abstractions, and abstract representations of space, prescriptive technical processes are mobilised within the contemporary mode of production to pursue selective interests, transforming the physical environment, and imposing new spatial identities that reflect changes in the social and economic sphere (Lefebvre 1991, 8). In short, space materialises dominant discourses about it. On the second point, the material structuring of the environment around us inscribes new socio-spatial relations, where space is harnessed by dominant actors to facilitate exchange and organise the relations of the market. It is in the construction of space and through patterns of spatial ordering that composing new socioeconomic arrangements become possible, and exclusions and exceptions on which they depend become entrenched.

The combined result of these two aspects of space is a dialectical process where knowledge/power is materialised in space and modes of spatial organisation, which in turn perform systems of economic knowledge. Such thinking, advanced by the ‘new geographers’ and social/spatial theorists such as Henry Lefebvre, Edward Soja and Michel Foucault subsumes and exceeds the notion that knowledge and language function as a form of social action. It is emblematic of a spatial turn in social science, which emerged from the perspective that while statements -through accompanying forms of practice- can effect change, erasing and replacing existing geographies in a systematic manner, space is not just a representation or reflection of such change, but is itself an agent of change that enacts new realities. An example of this agency can be witnessed in the context of a GVC/GPN development paradigm, where institutional power/knowledge shape space with consequences for how economies are organised. GVCs/GPNs, the architecture and organising principle of global circulation, are spatially mediated. The organisational forms that mediate their existence, that is contemporary economic zones, are themselves mediated by normative forms of knowledge and practice.

2.3.1. The socio-spatial dialectic and the materiality of space

A key concept in spatial theory that captures the dynamic relationship between knowledge, power and space described above is Lefebvre’s socio-spatial dialectic. Writing in the early 1970s, social-spatial theorist Henri Lefebvre was among the earliest to challenge the assumption of the logical, epistemological priority of language in imposing relations of dominance (Lefebvre 1991, 10), and to address the lack of attention to the diverse processes and practices implicated in the production of space. Lefebvre argued that modern critical thinking fetishizes conceived space, the mental representations of space we generate, otherwise referred to as Euclidian space: '...mental space then becomes the locus of a 'theoretical practice' which is separated from social practice and which sets itself up as the axis, pivot or central reference point of knowledge ...' (Lefebvre 1991, 6). Lefebvre's project sought to expose the actual production of territorial space, which he viewed as the objectification of knowledge in space, while recognising that "knowledge objectified in a product is no longer coextensive with knowledge in its theoretical state", and is "irreducible to a 'form' imposed upon phenomena, upon things, upon physical materiality" (Lefebvre 1991, 27).

Lefebvre's ideas on the agency and materiality of space were developed to challenge approaches that emphasised the priority of discourse. Lefebvre made the case that if we treat discourses and representations as abstractions we remain limited in our analysis to the effects represented in the code it establishes, we allow such models to become objects of ideological mediation. Ideology however, ceases to have standing without a material space to which it refers, describes and makes use of. Ideological representations, the moral and cognitive superstructures of society, only achieve the status of knowledge (rather than remaining as rhetoric) by intervening in space and acting upon it through practice according to its qualities and attributes (Holm 2007, 228; Lefebvre 1991, 44).

Epistemologically speaking, then, language can be seen as a precondition for space, where space materialises discourse, serving as a tool for thought and action and bringing order to the perceived realm. Space is an active presence in social practice (Murdoch 2006, 14). And yet both language and the space corresponding to language are produced, both serving as a means of control, domination and power (Lefebvre 1991, 26).

On the one hand, therefore, the starting point in discussions on socially produced space is knowledge, discursive regimes and technical devices mobilised in all kinds of projects concerned with space to integrate and advance the existing mode of production (Lefebvre 1991, 9). And yet by stressing the materiality of space such accounts challenge the historical determinism of certain debates within critical inquiry on the political use of knowledge and how it enables the elite to construct hegemonic power (Skordoulis and Arvanitis 2006, 108). Ideas around the production of space integrate an explicitly geographical perspective into such historical accounts of socioeconomic change. Soja uses the term 'spatiality' to refer to socially produced space, and to signify the political importance and centrality of space to historical enquiry (Soja 1989, 80). Soja follows Lefebvre, whose idea of social-spatial dialectic offers an account of power/knowledge that incorporates the materiality of space and into its analysis of historical power.

2.3.2. Space as an assembled formation

The concept of space employed in this work builds on the insights of socio-spatial theory, which recognises the crucial role that space plays in constructing power relations and advancing ideological agendas, and vice versa (Murdoch 2006, 56). With respect to the role of global institutional power in organising exchange relations, ideas, models and representations are seen to act as a proxy for power. These ideational forms are wielded by dominant actors to maintain their hegemony, with the recognition of space, the object of these knowledge regimes, as an important and powerful medium for social formation. And yet the conceptualisation of space employed here is based on the work of social scientists who sought a wider, more open and more practice-based definition of the social.

In his examination of transforming geographies of urbanism, industrialisation and state power, Lefebvre's aim was to look beyond the earlier geographical approaches of Marxism and spatial science that produced notions of enduring spatial structures that impose strict patterns of spatial ordering through given societies (Murdoch 2006, 14). But in considering ongoing shifts in the inherited territorial ordering of political-economic space, Lefebvre's solution is to distinguish in his *unitary theory* between three distinct yet overlapping aspects of a single spatial reality that are irreducible to one another or to the whole. In this way Lefebvre maintained the idea of a socially constructed, predetermined and mechanistically produced space while making way for various other realities that nonetheless interact and respond to it.

Inspired by geographical poststructuralism, authors that include Murdoch (2006), Anderson and McFarlane (2011), and Muller and Schurr (2015) take observations on the relationship between power/knowledge and space as a starting point, while taking up the question of *how* relations of power are inscribed into the spatialities of everyday life in practice (Murdoch 2006, 57). These authors maintain that dominant representations of space are in thrall to both knowledge and power, which craft physical space as a means of establishing new patterns of behaviour that are ultimately regulated by the material context of space itself (Lefebvre 1991, 50). But they emphasise the construction, rather than the production of space, a process that is viewed as dynamic, complex, emergent and performed, challenging the notion of representations that unfold unproblematically through time and space in any form.

To say that space is assembled or constructed is not the same as saying that space is the product of social construction, as the social does not in reality unfold unproblematically, nor can it exist without both the inputs and work that enforces it and sustains its effect and the actors that employ such means to advance different meanings (Painter 2010, 1105). Modern or global geographies are not predetermined or mechanistic. On the one hand forming them requires constant intervention and mediation, through political, administrative, technical and calculative practices that are deployed and mobilised to sustain and maintain it. On the other hand, practices of planning and development, universal regimes of knowledge and practice determined historically, are employed by diverse actors who enable these modal shifts and their associated changing timescapes, for example from the modern to the global (Soja 1989), advancing capitalist relations in geographically distinct ways.

As a strand of geographical inquiry that developed do deal with such questions, post-structural geography thus shares the same concern with the 'real' space that underpins ideal space, coexisting and interfering with it. In contrast to the work of Lefebvre however, post structural geography employs the conceptual tool of 'multiplicity' and advances a concern with difference to examine the diverse realms that lie concealed by hegemonic categories, the realms of material conditions and social practice. Multiple political agendas and social realities do not simply exist as distinct moments within a broader dynamic of capitalist relations, but are constitutive of, and inhabit these relations in diverse and unfamiliar ways. Unlike Lefebvre, poststructuralist theorists and geographers do not conceptualise the real as a separate moment of spatial practice occurring between spaces and materialising as a manifestation of an underlying structure. Space the locus of any social action, is thus constituted relationally by complex social relations and material realities that exist on their own terms and carry their own logic.

And yet it is the ideas, knowledges and technologies that rely on expertise of various kinds that are the precise means by which rationalities are inscribed and temporalities come into being. From a poststructuralist geographical perspective, these ideational and practice-based forms configure space through the mobilisation of different resources and actors across multiple settings. It is these technologies that will be addressed first before examining the complex relations that uphold the spatial-economic interventions they enable, and the emergent trends that are the particular effects of these interventions within situated settings.

3. Spatial strategies for GVC/GPN integration in World Bank economic zone-policymaking

This chapter discusses in concrete terms the central role of global institutions and the knowledge regimes they promote in organising social-spatial relations. The analysis builds on the notion that economic relations are spatially mediated, and that its active role in facilitating exchange relations has rendered space a key site of institutional intervention. Accordingly, the chapter will identify, trace the emergence of and situate in historical context the spatial policies and technical practices prescribed by the World Bank to restructure economies towards GVC/GPN industrialisation and development. The analysis centres economic zone policy programs that emerged in the shift to GVC/GPN development with the proliferation of globally dispersed production, and that sets the context for firm-coordinated decision-making in GPNs.

The chapter argues that contemporary economic zone policy programs developed and promoted by the World Bank structure markets to correspond to a GVC/GPN-oriented vision of development. The discussion draws on World Bank publications issued between 2008 and 2020 to identify the main features of a policy framework for GVC-oriented zone-based policymaking. This policy framework is articulated in economic zone policy guide-books, reports and practitioner guides as well as proliferating World Bank-issued resources on GVC development, and is adopted by national governments worldwide. The main policy areas highlighted and discussed are a land governance framework that privilege offshoring firms, an infrastructure model that prioritises international over domestic connectivity, and new measures of trade that emphasise value chain performance over the production of goods and services within the self-contained and self-regulated boundaries of national territory.

The discussion can be broken down into two parts. The first section discusses the historical-institutional context of contemporary spatial policymaking by global development institutions in the global North, mainly the World Bank. This section traces the evolution of GVC/GPN policies as a paradigm of development, supporting the main argument of this chapter that global institutional policies provide the means for structuring markets to correspond to a GVC/GPN-oriented vision of development. The analysis also shows how spatial systems are not neutral, but emerge in response to historical situations and their associated ways of thinking and knowing. The second section substantiates the claims of the chapter by zooming in on the policy literature produced by the World Bank, which defines the popular conception of economic zones and sets the standard for GVC/GPN-oriented economic zone development. This section foregrounds three areas of policy and practice that relate to the development, use and governance of land in the context of World Bank-developed economic zone policies. These are the centring technical systems and international best practices that impose new spatial relations, constructing space as a global form (Prince 2010, 169). Technical systems allow policies to be articulated in a particular place, defining and delimiting the object of the policy being transferred -in this case space- and ordering new arrangements.

3.1. GVC/GPN oriented spatial planning: An historical-institutional context

The following discussion situates GVC/GPN development within the historical context of policymaking by international institutions. The discussion will trace the emergence of GVC/GPN ideas in World Bank policy literature and in some publications issued by the OECD.

The analysis shows that the specific moment in which the GVC/GPN-led spatial development paradigm emerged is linked to broader historical transformations that include a rejuvenation of public-sector spatial planning in a post-financial crisis global economy. This state-led agenda differs from earlier forms of state activism and their associated spatial development initiatives that were adopted by newly independent developing countries in the post WWII period. The latter state-led development framework promoted interventionist government policies that supported economic nationalism and developmentalism. The GVC/GPN development agenda also differs from neoliberal 'roll-back' policies implemented by International Financial Institutions (IFIs) in the 1980s and 1990's ostensibly as a means of achieving macroeconomic stability. GVC-led spatial development began to crystalise at the turn of the century with the proliferation of globally dispersed production. This agenda is focused on creating globally linked territories that can be inserted into networks of circulation and exchange, with the state playing the role of facilitator in the expansion of global markets.

It is important to note the relevance of the perspectives that international institutions are arena's for struggles to shape the world order, and are partially driven by the interests of state actors among other players (Hart 2010; Wade 1996). The adoption of particular discourses by international institutions is the result of power-laden arrangements whose actors are at the forefront of expertise and knowledge production (Hart 2010, 131) and who create the conditions that reinforce rather than challenge the 'agents of global capitalism' (Hart 2010, 131).

Economic zones in particular provide an example of how changes in the dominant knowledge paradigm - the rise of a GVC/GPN development, a renewed role for the state and the domination of multinational capital in all areas of economic life- effect change in the dominant spatial paradigm and vice versa. Contemporary economic zone programs embody the idea that spatial structures are enacted in response to historical situations and their associated ways of thinking and knowing. and new representations are constituted in the shift from one mode to another (Lefebvre 1991, 46-47). In this sense, World-bank economic zone programs epitomise the observation made by Henri Lefebvre that each mode of production has its own spaces that represent its paradigmatic aspects. Taking the materiality of space into account however, contemporary zones do more than represent how economic paradigms translate from abstract vision to concrete reality through spatial change. Economic zone development enables and materialises the dominant (GVC/GPN-oriented) economic paradigm, to which it bears a dialectical relationship

3.1.1. The re-emergence and institutional incorporation of centralised spatial planning

In an article discussing the re-emergence of centralised spatial planning, Schindler and Kanai (2021) draw parallels between the post-war consensus surrounding state-led development – concretised in the spread of high-performance infrastructure initiatives that aimed at developing the productive capacities of newly independent nations- and an emergent regime of infrastructure-led development. The 2008 crisis, they argue, revitalised the view associated mid-20th century modernisation that state intervention is necessary for structural transformation (Schindler and Kanai 2021, 41). But while public sector planning in the post-war period was driven by the rational of developing and growing nationalist economies relying on Import Substitution Industrialisation (ISI), the central role of industrial policy in a contemporary context goes beyond the domestic focus of ISI regimes and creating vertically integrated industries within the national economy (Gereffi and Sturgeon 2013, 342). From dynamic urban systems to demarcated development zones and corridors connected through networked mega-infrastructure projects, the aim of contemporary spatial planning is to produce “functional transnational territories that can be ‘plugged in’ to global networks of production and trade” (Schindler and Kanai 2021, 40).

The re-emergence of spatial planning is a relatively recent phenomena, one that took off after decades of neoliberal restructuring in which it was widely accepted that the well-functioning institutions and market mechanisms were all that is required to generate growth (Schindler and Kanai 2021, 42). Prior to the neoliberal period, many countries across the developing world adopted public sector-led regional development as a means to achieve balanced growth. Regional planning was characterised by an inward orientation of production and the imperative to expand domestic and regional markets as a precursor for the transformation and modernisation of newly independent countries, and as a prevailing industrial development strategy it continued to be influential well into the 1970s (Schindler and Kanai 2021, 41).

Due to unexpected changes in global conditions, however - the global oil crises in the 1970’s; increased borrowing by developing country governments, resulting in build-ups of debt to international public and commercial banks beyond their capacity to service; a worldwide recession and increased borrowing interest rates- governments of developing countries were forced to abandon spatial planning initiatives abruptly soon after they began (Krueger 1987). The majority of borrowers facing debt difficulties no longer had access to credit markets, and by 1982 after Mexico defaulted on its sovereign debt followed by a host of other countries, the era of infrastructure and economic development financed by central governments had come to an end (Marois 2012; Schindler and Kanai 2021, 42).

As policymakers became less inclined towards strategies based on borrowing and more and more concerned with economic globalisation, new growth-oriented approaches to regional planning began to emerge, replacing centrally steered programs and their associated inward orientation of production. As firms began to increasingly engage in cross-border production, policies were formed that curtailed the role and reach of the central state and increased reliance on market forces for the distribution of goods and services, aiming to reinforce conditions favourable to the needs of mobile capital. Such policies consolidated the primacy of market mechanisms over the public provision of infrastructure and marked a transition to new forms of urban and industrial governance, including devolution of power to local levels of government. The economic geographies that took shape during this time were characterised by the diffusion of discourse that emphasised market-driven growth, flexibility and locational competitiveness (Brenner 2004, 3).

Crucially, the world Bank provided the institutional and epistemological basis for the shift to reforms that prioritised global free trade as the engine of economic growth over state centred solution (Elyacher 2002). While earlier World Bank publications endorsed planning for balanced regional development (World Bank, 1979), in response to the oil and debt crises a new development strategy promoted in the context of the Washington consensus began to emphasis a move towards free markets, fiscal adjustment and ‘getting the prices right’ (Schindler and Kanai 2021, 42). The new direction was based on the rational that to succeed, governments had only to implement certain “horizontal” policies (such as education, infrastructure, and macro-economic stability) and be open to trade (Gereffi and Sturgeon 2013, 329). IFIs began imposing Structural Adjustment Programs on debt-ridden countries as a condition for receiving loans and financial assistance, with the ostensible aim of achieving macroeconomic stability. Structural Adjustment Programs are a set of economic reforms that include cuts to public sector spending as well as the privatisation and financial liberalisation and deregulation of the domestic economy. These programs stressed the efficacy of markets liberated from the regulative restrictions of the state and further discredited industrial and regional planning (Marois 2012, 73).

The market led-reforms that followed decreased trade costs and led to an unprecedented expansion of global trade. But a heavy reliance on market forces for the distribution of goods and services soon impacted the spatial distribution of economic activity, compounding uneven development as FDI from OECD countries became concentrated geographically in competitive regions and countries (Baldwin 2018, 186-188, 214). When it became clear by the late 1980s that further measures were needed to ensure the sustainability of free-market transitions, international institutions began promoting market-oriented institutional reforms that prescribed a new role for state authorities, that of establishing an institutional environment that would encourage private investment (World Bank 2002; World Bank 2003). World Bank policy publications began endorsing a strategy of 'getting the institutions right', marking the introduction of the good governance agenda. Articulating the new agenda, a World Bank report titled *Sub-Saharan Africa from Crisis to Sustainable Growth* (1989) maintained support of structural adjustment reforms, while asserting the need for "not just less government but better government – government that concentrates its efforts less on direct interventions and more on enabling others to be productive" (World Bank 1989). Recommended measures included reducing corruption, ensuring transparency, enhancing property rights and fostering a business friendly regulatory environment.

It was not until the 2008 crisis that the a renewed role for the state in spatial planning and economic development more broadly was fully embraced by global development institutions, however (Marois 2021, 105-106). In the wake of the crisis the World Bank's first non-Western Chief Economist Justin Yifu Lin advocated for the incorporation of spatial planning into the World Bank's development policy (Liu et al 2020, 4). Rooting his approach in the New Structural Economics, which he pioneered, Lin advocated what he dubbed a 'Global Structural Transformation Fund (GSTF)', a globally coordinated effort for increasing infrastructure investment and therefore increasing demand in an attempt to address problems of market and governance failure (Lin and Wang 2013). Lin further argued that in a post-crisis environment, in order for countries to capitalise on emerging opportunities offered by an increasingly globalising world economy, cities and regions must be integrated into networks of logistics, trade and production. As leading global institutions began promoting infrastructure-led development as a primary strategy for integration, policymakers embraced construction of large-scale infrastructure, prioritising metropolitan, inter-regional and transnational connectiveness (Liu et al 2020, 4).

3.1.2. Spatial policymaking for global economic integration

In the aftermath of the 2008 crisis, leading free-market institutions like the World Bank and the OECD began paying attention to the neglected role of physical space in economic policymaking, attempting through various points of entry to integrate planning and infrastructure development with the institutional architecture of investment and trade. One influential study representing this shift was the OECD's 'Regions Matter' report (2009), which argued that institutional reform alone has little potential for success, and advocated for the adoption of a spatially-based approach to development. After highlighting trends and drivers of regional growth within and across OECD countries, the report provided a framework for an 'integrated regional approach', which combined policies based on infrastructure with policies for improving human capital to foster business development and innovation (OECD 2009). While the report focused on global North economies, it nonetheless implied that the same knowledge applied to the locations in question should interest all countries, not just those that dominate the world economy.

Perhaps the most influential report reflecting the move to re-spatialise development policy was the World Bank's 2009 World Development Report, *Reshaping Economic Geography*. In the introduction, the report states that its aim is to advance the "influence of geography on economic opportunity by elevating space and place from mere under- currents in policy to a major focus" (World Bank 2009, 3). As a response to the historically evolved conditions created by the financial crisis, the report provided a policy framework for economic integration to facilitate economic growth, which it claimed would eventually translates as convergence in standards of living. Embracing the tools of economic geography, the proposed framework focuses on identifying lagging regions and determining priorities for policies to help integrate these areas. In particular, the report identifies three main spatial strategies to help regions improve integration with, and access to world markets: a continued focus on institutions and governance, connective infrastructure and targeted incentives (World Bank 2009, 202-216). These elements formed the core of a spatial planning approach that would evolve to accommodate, as well as perform, further changes in the global organisation of industry.

Significantly, the 2009 World Development Report articulated the logic of an emergent spatial growth paradigm that combined locational strategies with a concern for expanding and strengthening production chain participation, moving away from the more inward looking strategies of regional growth. The spatial growth strategy outlined in the report is underpinned by the operation of two forces (outlined by Baldwin (2012) elsewhere). First is the fragmentation of the stages of production across countries as a result of economic liberalisation worldwide, decreased transportation costs and advancement in information and communications technologies. Second, a phenomena which has accompanied the disaggregation of production is the spatial concentration of (globally dispersed) production activity. Concentration, according to the logic of the World Bank, enables convergence in living standards between those areas favoured by producers and lagging areas, but only in places that are well connected, as congestion causes economic activity to spill over to connected parts (World Bank 2009, 2).

Economic development thus brings with it unbalanced development, but also conditions of prosperity within and across locations in a virtuous cycle. This basic logic continues to inform spatially targeted interventions, which focus on areas of market-based comparative advantage at the expense of locations that are viewed as less beneficial to the global marketplace.

Further to the above, in 2013 the World Bank issued a second key publication that outlined new geographical patterns of value creation and capture, and that promoted integration into global production and distribution systems (Cattaneo et al 2013). This publication was a working paper authored by specialists that included the pioneer of GVC analysis and founder of the GVC framework, Garry Gereffi. The paper outlines four areas relevant to changing business practices and associated development policymaking as a way to inform and guide policymakers. First is the shift in the strategic frameworks of business relations from countries to firms and GVCs. Countries cannot develop competitiveness in goods and services in isolation, but should think of trade and FDI within an integrated framework. The second area addressed concerns a shift in the framework for economic development from industries to tasks, business functions or segments of production. Third is the change in relevant economic assets from endowments and stocks to flows. This occurs as horizontal competition between firms in the same sector decreases and firms become reliant on each other as sources of key inputs and competences. Finally, the paper discusses changes in barriers to trade, from traditional (public) obstacles at the border, such as tariffs and quotas, to private barriers related to standards and costs (Cattaneo et al 2013, 4-5).

3.1.3. GVC-oriented spatial planning

At the systematic level of the global trading system, trade policy is a critical foundation for governing world merchandise flows, and has played the leading role in creating a supportive international environment for the fragmentation of production and the expansion of joint production. The World Trade Organisation (WTO) is the body responsible for shaping the structures and organisation of global trade. Critical strands of GVC research have provided useful insight on the WTO's role in setting the rules that operate on the systemic level for the governance of GVC/GPNs in the international legal system, focusing in particular of economic law-making within the multilateral trading system. Such studies examine the trade rules, agreements and legal manoeuvres that have led to the liberalisation and deregulation of economic sectors to facilitate insertion into GVCs, focusing on the detrimental impact to local firms and communities (Alessandrini 2020; Stephenson and Pfister 2016; Tan 2020).

But trade laws are not the only component shaping global GVC governance. Openness and the removal of barriers to investment and trade have been complemented by spatial policies at particular points of production in the world economy that help structure enabling environments for firms to be inserted into GVCs (Tan 2020). These policies are developed and promoted in such documents as The World Bank/World Economic Forum's 'Enabling Trade' report (World Economic Forum 2013), as well as a OECD-WTO-UNCTAD report presented to G20 leaders in 2013 titled 'Implication of Global Value Chains for Trade, Investment, Development and Jobs'. The latter report urges governments to combine a traditional approach of embracing FDI and open markets with business-friendly policies to capture increasingly mobile capital. This entails creating conducive environments for investment that offer new sources of competitiveness including sufficient network infrastructure and complementary services to enhance the competitiveness of firms (OECD, WTO, UNCTAD 2013, 18)

Significantly the World Bank's 2016 report 'Making Global Value Chains Work for Development' (Taglioni and Winkler, 2016) outlines a strategic framework on GVC participation which, among other policy options, recommends the establishment of economic zones to create GVC-enabling environments. Countries can join GVCs, it states, by attracting FDI, and one effective way to do so is to build sites equipped with infrastructure, streamlined (export) procedures and favourable tariff conditions (on import of intermediates) as a means to remove restrictions and barriers to foreign investment (Taglioni and Winkler 2016, 3). Elsewhere, World Bank experts portray zones as an ideal instrument to support transitions to export-oriented growth in a contemporary industrial landscape characterised by the "vertical and spatial fragmentation of manufacturing into highly integrated 'global production networks,' particularly in light manufacturing sectors like electronics, automotive components, and especially apparel" (Farole and Akinci 2011, 5). World Bank experts also highlight the broader macro-context in which zones operate compared to a pre-crisis world economy which favoured traditional Export Processing Zone (EPZ) models, and compared to earlier phases of development where zones supported Import Substitution Industrialisation. The main conclusion around economic zones is that the rapid expansion of zones as a spatial form and an instrument of trade and investment is testament to the importance of this evolving policy instrument in the context of an emerging GVC/GPN development agenda (Farole and Akinci 2011, 5) [1].

The World Bank-led policy agenda that gradually emerged from the combined concern with spatial growth strategies and the increasing prevalence of GVCs can best be described as a GVC/GPN-oriented spatial development agenda. This agenda combines infrastructure-led development and strategies to support agglomeration with a range of policies and regulatory reforms that seek to increase territorial openness and connectivity (discussed in detail in section 3.2). The overarching rational of the GVC agenda is that international trade, powered by GVCs, can deliver on a range of development goals such as poverty-reduction and increased standards of living by creating jobs, inducing technology transfers and spurring industrialisation. Growth and development are thus achieved through FDI spillovers and upgrading across firms, sectors and tasks. Effectively, the GVC framework perpetuates the idea at the core of orthodox economic thinking by claiming that economic benefits of insertion into global markets will trickle down to communities once the enabling conditions are provided for transnational firm activity.

Firm-led industrial upgrading as a strategy for development

Before discussing the policies that constitute a GVC/GPN development paradigm, this section will identify and examine the underlying theoretical assumption that guides spatial policymaking to advance GVC/GPN development, the assumption of 'development through upgrading'. The concept of upgrading in GVC development is one that is borrowed from developmentalist thought, but which, in a contemporary context, defines new roles for states and markets in economic development. Although globally linked economic zones come in many varieties, a common logic that underpins their creation in a context of globalisation and international production is that increasing the competitiveness of locations will provoke a causal relationship between upgrading in production networks and development (Bair and Werner 2011, 999). Industrial upgrading -the movement of firms from low-value to high-value activity- helps to increase value capture, allowing firms to deliver on a wide range of collective wellbeing needs (Akinci and Crittle 2008; Farole 2013; Gereffi 2014; UNCTAD 2019; UNIDO 2011, xiii; OECD 2013; Werner 2014; World Bank, 2018;). Development targets may vary across different institutional frameworks, encompassing a range of goals commonly applied by governments and global organisations from reduction of poverty and livelihood improvement, to promoting growth and environmental sustainability (Werner 2014).

An approach that frames the focus of development as processes of coordination and exchange led by firms maintains and articulates a traditional trickle-down development approach with 'liberal principles of economics', or neoliberalism at its heart (Roy 2010, 15). And yet the

[1] It is worth noting that there are various institutional pathways to GVC development, and consequently a range of policies suggested to government officials in how to improve inclusion in GVC operations . UN organisations favour more directed economic policies based on targeted interventions that would allow governments to manage FDI flows into strategic sectors, and even to impose protectionist measures in favour of certain national industries (Dreyper and Freytag 2014). Championed by heterodox economists and proponents of activist interventionist policies such as Joseph Stiglitz, Dani Rodrik and Justin Lin, this approach is based on the notion that market forces are insufficient for creating productive capacities, and encourages a focus on issues of sectoral targeting and infant industries, learning and promotion of exports (Stiglitz et al 2013).

renewed interest in the concept of upgrading in mainstream development policymaking reveals a changed way of thinking in international development circles which rejects market fundamentalism associated with the free-market ideology of the 1990s, and promotes more active, market-constructing types of interventions, such as investment in technology and innovation. Described as a third way between state-minimalist and state-directed approaches (Werner 2014, 1240), a new reformed and enlightened globalisation maintains a prior commitments to trade openness and private sector development, while eschewing market fundamentalism and notions of a self-regulating market in favour of a more active state role in making markets work (Gereffi 2014, 40; Roy 2010, 17; Werner 2014, 1240).

The institutional incorporation of upgrading and technological change, a strategy more commonly associated with a government-coordinated approach, can be understood in the context of the shift away from the market orthodoxies underlying free-market development. The concept of upgrading as it relates to GVC/GPN development first appeared in academic texts on Global Value Chains with a somewhat heterodox orientation (Gereffi 2014, 24,27), and was soon adopted by international institutions that underpinned the Washington Consensus - a rigid set of strictures mandating deregulation, privatisation, and trade openness- under the new Post-Washington Consensus. Though rooted in the neoclassical notion of firms seeking the best possible alternatives and balancing cost against benefit in the growth process, a mainstreamed GVC framework nevertheless broadens the scope of neoclassical theory by recognising that firms do not simply pursue profit and achieve technological improvement in the absence of supportive conditions (Werner et al 2014, 1223). The adaptation of the concept of upgrading supported the turn towards a more active role of the state in facilitating markets, including rectifying market failure, defined as the inefficient allocation of goods and services in free markets, by allocating resources.

Contrary to more standard state-coordinated interventions, upgrading interventions crafted by knowledge-producing institutions in the context of GVC/GPN development are specifically aimed at *foreign* lead firms (Neilson 2014). Adopting a 'demand-driven industrial policy', governments are expected to craft policies that enhance the business environment for, and remove institutional constraints facing foreign, rather than domestic economic actors (Neilson 2014). A 'market-facilitating' role of the state requires making available to capital economic rents in the form of incentives, public goods and services, and fixed capital assets (Neveling 2020,192). Enabling value creation or 'capture' in the domestic economy thus, in fact, involves a process of value transfer to foreign firms under the assumption that increasing their productivity and output will foster activity that will allow local firms to also achieve productivity growth (Levy 2008, 9; McGrath 2018, 513). Especially since, in a globally connected market, suppliers in developing countries will be impacted by broader industry developments, the decisions of MNCs made regarding their supplier networks are seen as being capable of generating supplier competitiveness and productivity (Werner 2014, 1224).

On the whole, upgrading discourse maintains the epistemological centricity of value-creation processes led by lead firms -or a firm coordinated approach to development- under the GVC/GPN paradigm. Upgrading bolsters the position of lead firms as gatekeepers to the chain, making firm governance synonymous with development. To illustrate, the World Bank's Foreign Investment Advisory Service outlines in one of its reports an approach to improving firm efficiency and productivity in sector specific value chains (FIAS 2007). The report's recommendations convey a continued belief in the market liberalising approach of removing regulatory constraints to business performance, including by reducing tariff and non-tariff barriers, and otherwise crafting policies that would attract foreign direct investment (Werner

2014, 1236). Complementing this orthodoxy, however, are policy recommendations for governments to intervene to address inefficiencies and firm-to-firm transaction costs, a micro-view that was absent in free market policies of the 1980s and 1990s.

Such inefficiencies are attributed to forms of market failure, a term whose use further reinforces the shift from a prior staunch commitment to self-regulating markets to a concern with institutions and government in making markets work (Werner 2014, 1240). Other recommendations in the Foreign Investment Advisory Service report seen as necessary for improving value chain performance include the provision of trade infrastructure and logistics services as a way to attract FDI (FIAS 2007). Notwithstanding the call for state-directed interventions however, the policy recommendations outlined do not include classical industrial policies of sectoral targeting, facilitating access to technology and new knowledge, and encouraging horizontal links. A reform agenda where governments remove regulatory barriers and correct market failures for investors is presented as being capable of delivering upgrading opportunities for local firms

Within World Bank literature promoting the concept of upgrading, the role of governments and institutions in economic zone development in particular is focused on removing constraints to business performance through FDI-supporting policies. This includes reducing regulatory barriers to global capital, for example by reducing tariff and non-tariff barriers, the through the provision of certain infrastructure services and comprehensive support facilities for the entry of investors (Akinci and Crittle 2008, FIAS 2007). Moreover, best practice principles recommend that zone authorities enjoy near complete administrative autonomy (Akinci and Crittle 2008, 19), advancing the new notions of state and market described above. Functions traditionally controlled by the state such as regulation, financing and administration of economic territory are transferred to an independent zone governing body according to best practice guidelines (Akinci and Crittle 2008, 5). On the whole, modern zone programs empower the state to construct business-enabling environments and instate new systems of circulation and control that enhance the dynamics of firm governance (therefore assigning firms the responsibility of providing upgrading opportunities). As a result, there is an increasing reliance on firm coordinated efforts to deliver on development targets and distribute social goods.

As the evidence reveals, global institutions, mainly the World Bank, have worked to provide comprehensive guidance on how countries and firms can enhance their global market integration, and in doing so have set, and helped countries transition to a GVC/GPN-led development agenda that privileges processes of coordination led by lead firms in the expansion of global markets. By identifying the basic assumptions that set the terms for economic policymaking, the discussion above supports the main theoretical argument of this research, that value production by business actors cannot be attributed to economic forces alone. Changes in corporate thinking and firm strategy (with a particular focus on the international fragmentation and dispersion of production stages) are enabled by changes to the business and regulatory environment, both from the perspective of individual countries, but more significantly at the level of rules and standards that are rooted in the orthodoxies of international development, that govern the global trade and production system, and that shape national policy frameworks (Stephenson and Pfister 2016).

3.2. Spatial policy and practice in the making of global space: Land governance, infrastructure development, and new statistical measures of trade

This section will zoom in on concrete zone-based policy areas and their associated technical practices - systems for developing, governing and evaluating the performance of land-generated and disseminated by global institutions to organise spaces of production and actively construct GVC/GPN development. The discussion will draw on the policy literature produced by the World Bank, which defines the popular conception of economic zones, the criteria against which zone performance may be evaluated and the effects it is assumed will spring from these practices including upgrading, diversification and export-oriented growth, setting the standard for economic zone development. The prescriptive and technical practices such knowledge regimes advance are at the heart of processes of spatial-economic restructuring, imposing coherence onto diverse relations, fixing GPNs in space, and deciding who can benefit and who is excluded from the gains of globalised economic activity.

Policy documents are considered the main vehicles for the diffusion of new economic ideas and the extension of new forms of expertise and frames of market action. They are disseminated globally in the context of technical assistance offered to governments through programs with industrialised partner countries (Stephenson and Pfister 2016). Such technical programs are the systems "wherein language becomes practice" (Lefebvre 1991, 3). Technical programs link forms of knowledge about development with different relations of power and various forms of intervention, stabilising socio-technical assemblages of diverse actors and making them cohere. In this manner GVC-oriented programmes backed by financial resources (including loans and other forms of assistance) equip state and policy actors with policy tools, technical devices and best practices that help them construct the spatial/physical and institutional conditions enabling the capture and distribution of value in GVCs. These programs determine the distribution of resources and opportunities for value creation, influencing decisions on where to base production, what to produce and how to produce. Technical programs impact as much on firm behaviour as considerations of economic productivity and profitmaking, and examining them reveals that GVCs/GPNs are as much a function of global policies as the production process itself.

The discussion draws on World Bank publications -policy documents, reports and practitioners guides- issued between 2008 and 2020 to identify the main features of a policy framework for GVC-oriented spatial planning and development, with a focus on zone-based policymaking. This framework is disseminated internationally and targets firm behaviour as well the national level of policymaking. It is articulated in economic zone policy guide-books and practitioner guides (Farole 2011; Farole and kweka 2011; Farole and Akinci 2011, Farole 2013; Akinci and Crittle 2008; World Bank 2017) as well as proliferating World Bank-issued resources on GVC development (FIAS 2007, Taglioni and Winkler 2016; World Bank 2020). The main policy areas explored, are land-use governance, infrastructure development and the inscription of new modes of calculation. It is through the world-wide transfer and translation of such policies that diverse array of spaces are homogenised and rendered available for global investments, helping to reformat global economic relations and modes of socio-economic ordering (Li 2014, 2).

Before proceeding, there is a need to define the term 'economic zone' as it is used in this research project. The generic term economic zone is used to refer to a variety of bounded geographic enclaves that function with different administrative, regulatory and fiscal regimes and institutional frameworks than the rest of the country. The particular type of economic zone examined in this thesis is China's Economic and Trade Cooperation Zone (ETCzone), a domestic variant of Chinese economic zones that has been transferred and transposed to various countries in Africa, Asia and Latin America. ETCzones are special regulatory regimes designed as open trade environments in host economies to encourage the relocation of Chinese firms. Chapter 5 discusses the features of this economic zone model in detail.

Otherwise, there are a variety of different types of economic zones across the world, with differing objectives, markets and activities. The rationale for economic zone development may also differ between countries, with a clear distinction between the types of zones that exists in developed and developing countries. The main types of economic zones that exist are outlined in table 3.1. What contemporary zones have in common, however, is that they aim to boost locational competitiveness in order to reduce the operating costs of businesses, broadly aiming to attract FDI, enhance and diversify export-oriented industry, increase training and technology transfers, raise foreign earnings, create new employment opportunities and develop linkages between foreign firms and the local economy. A typical zone policy package offers custom and sometimes tax exemptions and other incentives, such as a relaxed regulatory environment, liberal foreign exchange policies and streamlined customs and administrative procedures (Akinci and Crittle 2008, 12).

Table 3.1. Types of economic zones (Source: Akinci and Crittle 2008)

Type of Zone	**Development Objective**	**Physical Configuration**	**Typical Location**	**Eligible Activities**	**Examples**
Free Trade Zone (Commercial Free Zone)	Support trade	Size < 50 hectares	Ports of entry None	Entrepôt and trade-related activities	Colon Free Zone, Panama
Traditional EPZ	Export manufacturing	Size < 100 hectares; total area is designated as an EPZ	None	Manufacturing, other processing	Karachi EPZ, Pakistan
Hybrid EPZ	Export manufacturing	Size < 100 hectares; only part of the area is designated as an EPZ	None	Manufacturing, other processing	Lat Krabang Industrial Estate, Thailand
Freeport	Integrated development	Size >100 km2	Distressed urban or rural areas	Multi-use	Aqaba Special Economic Zone, Jordan
Enterprise Zone, Empowerment, Urban Free Zones	Urban revitalization	Size < 50 hectares	Country-wide	Manufacturing, other processing	Empowerment Zone, Chicago
Single Factory EPZ	Export manufacturing	Designation for individual enterprises	Typical Location	Eligible Activities	Mauritius Mexico Madagascar

3.2.1. Governance of land use

The first step in establishing an economic zone is to designate land specified for the types of activity planned, and to establish a geographically-focused governance regimes within the designated site. Land governance mechanisms regulate changes in land-use. Two of the main governance mechanisms relevant to economic zone development are land-use planning and implementing an incentive structure designed to draw global investments and deliver on the competitiveness of land (OECD, n.d.). The particular land-use planning tool examined is that of the masterplan, an important component of contemporary economic zone programs. Creating a land-use masterplan is the stage that precedes preparing the land for development (grading, levelling, other pre-construction activity), and is the responsibility of the selected land/industrial developer (Farole and Kweka 2011, 4).

Prior to entering the stage of land-use planning however, World Bank economic zone policy guides advise governments to develop a strategic plan for the planned economic zone based on a rigorous assessment of demand to ensure the strategic positioning of the zone program (Farole 2011 171). In a study that draws on the experiences of global economic zones in countries across Africa, Asia and Latin America, the World Bank identifies good practices in strategic planning for economic zone programs (which the guidebook refers as instruments of global economic integration) (Farole 2011 153). The main objective of strategic planning according to the guide is to identify the investment focus and pinpoint production activities that align with a country's comparative advantage while developing clear sources of competitive differentiation. This requires conducting a demand planning assessment to ensure that planning responds to investor needs (Farole 2011 158).

The next step, according to an institutional framework for new economic zones provided in the guide, is to form an autonomous regulating authority to carry out government plans and to designate public/private land for use. The zone authority is also responsible for selecting a public or private entity to act as the developer, as well as to monitor compliance with economic zone regulation and requirements and coordinate with diverse actors (Farole 2011 171). Economic zone regulatory authorities are established as independent bodies to facilitate government services, relations and project-based work based on objectives identified in government strategic planning. They can adopt various institutional arrangements and can be established in the form of government authorities, departments that include specific ministries, zone specific management boards or investment promotion agencies.

According to World Bank sources, however, best practice guidelines indicate that zone authorities should be anchored at the highest possible level of government (Farole 2011 181) reflecting a broader agenda of state-facilitated spatial planning. The authority is supposed to act autonomously. This means that the zone authority devises plans separately from broader government strategies rather than it having to act independently from the central government. The authority is responsible for undertaking such tasks as facilitating business or investment licensing/registration; decision-making on issues relating to taxation; providing environmental, building and foreign work permits; setting labour regulation; and offering regulatory services within the SEZs. It is also tasked with setting regulation relating to land use and building permitting, and as the central institutional actor in the zone program, it coordinates with many key stakeholders, including developers, operators, foreign governments and firms to plan the zone effectively (World Bank 2017, 12).

Once the zone's regulatory body is formed governments can then go on to commission a master plan according to set objectives. As a specific land-use planning tool the master plan itself is produced by the selected zone developer based on demand assessments and forecasts. The text of an advisory service agreement for industrial and agri-business parks offered by the World Bank to the government of Sudan provides an example of best practice master plans developed by the World Bank (World Bank 2018) and implemented by zone developers worldwide in consultation with business advisories, public policy consulting firms or international policy experts. The proposed master plan concept outlined in the agreement takes into account industry/market assessments, sector profiles, transportation assessments and infrastructure analysis. The latter includes roads, water, sanitation, telecommunications and electricity as well as phasing, plot size and service requirements. It specifies land-use of specific blocks and contains information on the division and subdivision of land, construction of new buildings, building orientation, height limits, densities, landscaping and other changes in land use.

The masterplan thus reflects priorities set at the national level, but that are rooted in an outward-looking model of development focused on facilitating integration into systems of production, trade and investment flows as a strategy for broader socio-economic upgrading (Cattaneo et al 2013). As knowledge structures that enact institutional power, masterplans are diffused by international institutions, adopted by governments and planners, and performed within an institutional design based on government-led coordination between assembled multilevel actors and relations, producing new forms of spatiality that are multiscale and networked rather than locally focused. At the centre of this process of spatial transformation therefore is the extension of plans and knowledges that express a particular economic vision, accordingly designate new uses of land, and create new legal and regulatory regime to facilitate this transformation.

As part of this regime zone planners implement a range of preferential policies with the aim of encouraging action by, and thereby enrolling into the assemblage a range of firm actors. This occurs through the provision by the domestic government of incentive structures, the second land governance mechanism reviewed here, that render the relocation of firms profitable. These investment attraction measures fall broadly into two categories: fiscal and nonfiscal incentives. Fiscal incentives include special incentives, deductions and credits for FDI, such as subsidised energy, transportation and utility costs; tariff reductions or exemptions; and preferential tax treatment. Tax incentives for FDI are often structured through the income tax system, including exemptions or reductions on corporate income tax (tax holiday's, deductions or corporate income tax relief) as well as relief for personal income tax for foreign employees.

Increasingly in economic zones, tariff/custom duty incentives are becoming a favoured instrument over tax incentives, as policymakers find that tax holidays not only deprive governments from an important source of revenue, but are associated in the long term with poorer performance in terms of export and employment (Farole 2011, 173). Tariff incentives may apply to components, raw material, capital equipment, machinery or spare parts, and are not considered a subsidy under WTO guidelines -in particular the Agreement on Subsidies and Countervailing Measures (SCM Agreement)- reducing the perception of their disruptive effects on competitive markets (World Trade Organisation 1995).

The contemporary common wisdom, however, is that fiscal incentives in any form do not compensate for a poor investment climate. The evidence provided for this is that many countries that have established positions of competitiveness, such as China and Vietnam, have eliminated or phased fiscal incentives out altogether through processes of gradual integration between domestic and zone-based tax levels (Farole 2011, 178). Thus, governments are increasingly encouraged to prioritise the delivery of quality service to investors that make sure the business environment is as competitive as possible, allowing firms to operate efficiently and maximise profitability (Farole 2011, 173). Recommended non-fiscal incentives focus on the greater provision of services to investors to facilitate business operations, and include administrative streamlining, simplified import-export procedures and business-friendly regulations with respect to land access, permits and licenses and employment rules, in addition to the provision of supportive infrastructure.

3.2.2. Developing GVC-enabling infrastructure

Constructing physical infrastructure is the stage of zone-based development that follows strategic planning, demand assessment and creating a master plan. While implementing new regulations serves to frame zones as spatial anchors of global production operations, a crucial component of spatial change is transforming the material properties of space to enable global circulation and exchange. A spectrum of recent literature that analyses the spatial dimension of GPNs (Beyer 2021; Kleiber 2018; Kleibert and Horner 2018; Schindler and Kanai 2021; Liu et al 2020), focuses specifically on the "provisioning of infrastructures for global production and circulation as spatial interventions that mediate and alter these dynamics" (Beyer 2021, 121). Much of this analysis also considers the global context and constitution of infrastructure planning knowledges and practices, highlighting the role of global institutions in defining the priorities of public planning and investment and an emerging consensus around the priority of infrastructure for economic development.

There is a growing global consensus around the importance of scaling-up infrastructure investments that are concentrated in connectivity-driven projects such as bridges, pipelines, regional energy grids, railways, ports, air ports and economic zones (Goodfellow 2020; Schindler and Kanai 2021, 44; Schindler et al 2022; Wiig and Silver 2019). After decades of neoliberal policy programs targeting prices and institutions within the international system, a newfound imperative towards 'getting the territory right' (Schindler and Kanai 2021, 44) has stimulated a global-scale drive in fixed asset construction with the aim that that it will reshape how places are connected to the global economy (Farole 2011 12; Goodfellow 2020; Lesutis 2021; Williams et al 2021; Ziadeh 2018). The emerging infrastructure consensus reflects the core emphasis on GVC industrialisation and economic integration in international development. Though large-scale infrastructure has long acted as a key driver in facilitating production and exchange across trade routes, the broader policy agenda in which infrastructure planning strategies are situated aims to create transnationally networked territories designed to extract resources, move goods and capital and most importantly to integrate production on a global scale (Schindler and Kanai 2021, 44).

The World Bank is among the leading international institutions supporting the global connectivity-driven infrastructure drive, having provided infrastructure support for countries of the global south in historically specific ways for decades. As early as the 1970s the World Bank provided policy support and financial assistance for the construction and promotion of economic zone in the form of industrial estates, financing inputs (land, infrastructure, buildings) needed to develop investment and production sites (Farole and Akinci 2011, 3) Until the late 1990s the economic zone programs supported by the World Bank were designed on the basis of EPZs aimed primarily at attracting FDI and generating investments, jobs and foreign exchange earnings. Zones provided low labour costs, scale economies and preferential access to major consumer markets in order to catalyse export oriented manufacturing. Infrastructure development during this period prioritised access, quality, reliability, cost and flexibility (World Bank 2017, 13).

Recent years have seen a shift away from the World Bank's former focus of the traditional EPZ model however. Beyond serviced industrial land, a reliable supply of power and trade and financial incentives, new zone models prioritise high quality critical infrastructure and services like ports, electricity and transportation and communications that work to connect zones to other production nodes, resource frontiers, and logistics networks (Farole 2011; Farole and Akinci 2011; Akinci and Crittle 2008; World Bank 2017). One important trend in economic zone development in the last decade or so has been the proliferation of large-scale multi-use developments which combine residential commercial and industrial activity (Farole and Akinci 2011, 30). Inspired by SEZs that originated in China in the 1980s and diverging from traditional models used widely throughout the developing world over the past four decades multiuse zones are large in size, typically over 1000^2 hectors and cater to domestic as well as export markets (Farole and Akinci 2011, 2). New generation, multiuse facilities continue to rely at least in part on cost-advantages in factor input markets, but have also initiated a shift away from cost incentives as a means of facilitating greater private sector participation, towards a prioritisation of extra-local connectivity, with links to ports and other export hubs, as well as the provision of increased business support services and specialised facilities (Farole and Akinci 2011, 10; Akinci and Crittle 2008, 3; World Bank 2017, 99).

From a policy perspective World Bank publications stress that multi-use zone programs only make economic sense if they are linked to networks of other production locations, regions and economies with emphasis on physical , strategic and financial connectivity (Farole and Akinci 2011, 14). As infrastructural projects zones would serve to facilitate exchange between foreign firms and the local economy by promoting industry clusters and targeting links with zone based firms. To attract FDI zones are thus encouraged to compete on the basis of facilities and facilitation of firm entry, rather than incentives. This entails the provision of adequate, appropriately designed (and sometimes tailored) facilities and external connective infrastructure (Akinci and Crittle 2008, 5). Plans for infrastructural development in economic zones should in theory support the delivery of positive externalities, including upgrading and diversification through increased global linkages, ultimately contributing to the structural transformation of the economy (Farole and Akinci 2011, 7).

Financialising infrastructure provision

Practices of infrastructure development are thus embedded in a broader political effort to create functionally linked nodes in a globe-spanning network linking trade, production and financial flows. An important part of this agenda is planning and governing the provision of connectivity-driven infrastructure, which involves attracting global capital and sources of investment, and enrolling them in the assemblage of spatially situated actors and relations aligned around the objective of reconstituting space as a global form (Hanieh 2018, 147). The coordination of investments for the delivery of infrastructure worldwide thus occurs within assemblages of international players, which have been referred to as 'global growth coalitions' (Schindler and Kanai 2021, 45) or 'transnational actor constellations' (Beyer 2021, 124) led by international institutions and multilateral development banks, but also involving powerful nations-states, international consultants and key stakeholders in the private sector. Broadly speaking, the current consensus in international development is on public-private partnerships for the delivery of infrastructure, reinforcing both the role of global financial capital and states as facilitators of capital (Marois 2021, 238). This is reflected in zone-based infrastructure policy, which recommends strong private-sector participation in financing and implementing economic zones.

Contemporary global institutional norms around infrastructure provision began to crystallise in the post-financial crisis period amid intensified competition for FDI and the re-emergence of spatial planning as a key component of development policy. During that time a host of international institutions became deeply engaged in formulating an international program of ‘financing and financialising’ infrastructure. Initially, the infrastructure push was driven by the availability of cheap US capital with low interest rates with the quantitative easing programmes of the United States and the United Kingdom following the crisis (Marois 2015, 29), and was given leveraged by the launch of an unprecedented Chinese spending program which took on a global dimension with the expansion of infrastructure investments worldwide in response to the crisis. As deficits persisted however, global institutions began to actively promote sustainable solutions to finance the infrastructure gap, and projects based on partnerships between the private sector and state actors began to proliferate. The infrastructure push was thus bolstered by the assessments of international institutions, which deemed infrastructure investments to be vital for economic development and encouraged private participation in its delivery (Schindler and Kanai 2021).

The World Bank has played a significant role in promoting varying approaches to state-led infrastructure investment and development in recent years. One avenue towards this end is institutionalising and standardising technical, bureaucratic and regulatory procedures for state-led infrastructure provision (World Bank, no date). The World Bank Public Participation in Infrastructure database is one example of a platform that supports institutional decision-making on infrastructure, acting as a resource dedicated to the identification and dissemination of data, information and analysis on private provision of infrastructure to policymakers and other stakeholders. Meanwhile infrastructure benchmarking in both Public Private Partnerships (PPPs) and Traditional Public Investments (TPI), among other standardising and globalising practices, streamlines the procedures aimed at providing infrastructure that enhances connective capabilities (World Bank, no date).

Such procedures include advancing new models for Public Private Partnerships in port and logistics infrastructure. One aspect of this is the introduction of PPP institutions and administrative units that manage public procurement for more effective procurement of services and projects. It is through such instruments, ideas, policies and practices that the objectives, practices and decision-making processes of a range of vested interests are made to align around infrastructure development, regardless of circumstances of place and history, earning contemporary infrastructural projects the status of ‘global’ form.

As types of physical infrastructure to facilitate global production, economic Zones, industrial parks and other production hubs deploy the specific strategies and principles of infrastructure provision described above. A number of different approaches to the development of economic zones under PPP schemes are outlined in the World Bank IFC SEZ Practitioners guide published in 2008. This includes public provision of off-site infrastructure such as utilities, road networks and drainage and sewage, as an incentive for private funding of on-site infrastructure and facilities; leasing land parcels with secure title and development rights to private developers; government financial support for build-operate-transfer or build-own-operate on and off-site zone infrastructure development projects; leasing or contracting private management for government owned zones by a private operator; and equity shifting of government zones to private contract manager once pre-defined performance levels had been reached (Akinci and Crittle 2008, 2-3).

3.2.3. Reframing performance targets: Measuring trade in terms of value-added

The refiguration of national economic space as global form requires the enrolment of government modes of representation reflecting new ways of measuring economic activity. This section will examine the role of global institutions in promoting new measures of international trade as a discursive practice that helps constitute the individual, networked and connected nodes in which globally linked economic activity occurs[2]. These new measures of trade are the statistical performance targets that measure GVC/GPN activity. While economic activity in GVCs is not structured in terms of territory, the possibility of conceiving globally networked production requires the creation of connectivity-enabling spatial environments within the boundaries of national territory. As discussed, an enabling institutional environment and connectivity-driven infrastructure are central aspects of this process, as are a new politics of calculation to make new modes of economic performances measurable (Mitchell 2002, 8). The spaces of GVCs/GPNs must be connected because the institutions and firms that act upon them and the operations that occur within them are connected, and this must be reflected in the calculations -statistical measures of activity and performance- that describe material processes and make GVCs possible.

State spatial restructuring and the emergence of new forms of economic calculation

The statistical targets and measures that describe networked forms of production activity within a given space actively effectuate the spaces of economic activity that they claim to only represent. They do so by compelling policymakers to set priorities and create institutions in line with the aim of improving such measures and standards. Statistical representation is a calculative technique explicitly tied to 'rational' modes of governing. It serves as a tactic of representation, inducement, and discipline, and has long been a central focus of studies that aim to amplify a concern with the management of territory (and therefore space). Until recently, a contiguous, coherent and delimited political 'territory' with a defined economic space has been considered the primary unit of analysis in the world economy and the primary target of statistical representation. The production of national territory occurred partially through the emergence of powerful national modes of representation. These statistical representations brought into being conceptions of national (as well as urban or rural) space, an area that would be administered by state agencies in line with government priorities, (for example of increasing food or other modes of production) (Murdoch 2006, 160)

Structures such as economic zones are emblematic of a form of spatiality that departs from conventional principles of territorial organisation and regulation. Zones exemplify the reconfiguration of the political phenomena of territory and its association with fixed boundaries

[2] A range of World Bank tools measure performance and benchmark regulatory frameworks against institutional best practice. These tools include the Logistics Performance Index; Benchmarking Infrastructure; the World Bank's Doing Business Index, which measures and ranks the costs of doing business as a result of the regulatory environment; and the World Bank Enabling the Business of Agriculture Index, which assess regulatory environments with a particular focus on factors affecting agribusinesses.

within which states exercise legal authority and power, and embody the emergence of networked, topographical sites and forms of spatial organisation (Brenner 2004, 4). This does not indicate a wholesale replacement of popular territorial politics with politics of networks. Rather, as suggested in the literature on state restructuring and rescaling, such spaces illustrate the reconfiguration of national territorial formations to accommodate the emergence and increasing complexity of global financial, production and trade networks (Painter 2010).

In an era where capital expands multinationally therefore, not only regulatory frames and physical characteristics, but also statistical representations of territory have come to reflect activity that occurs within transnational networks of production and trade. New modes of measuring the 'productiveness' of a particular location are linked to processes that entail cross-border movement of products, knowhow, investments and human capital.

Reframing performance targets: Measuring trade in terms of value-added

A primary mode of statistical representation that gives order and meaning to the activities that occur within globalised economic space, ultimately helping to construct these spaces, is Trade in Value Added (TiVA). TiVA measures and calculates trade in new ways, and is a term that entered the vocabulary of international development as a measure of economic production after the rise of GVCs. Within orthodox GVC policy literature, the definition of value-added is the value of output at a given node or stage in the chain minus the value of input, or the value of components, resources or unfinished products used in the production process. Value-added - hence earnings- from zone activity can thus be approximated by tracking net exports (gross exports minus imports) in a particular location (Akinci and Crittle 2008, 37). It differs from GDP, which tends to emphasise the regulated boundedness of territory. Value-added takes for granted a node's position in relation to other nodes in cross-jurisdictional networks of production, exchange and distribution, framing it as a space structured by its connectivity rather than contiguity. It can be calculated not just for a national economy as a whole but for a part of it, making it a suitable for implementation in demarcated areas of the space economy, such as zones.

Although value-added is seen as a technical and neutral accounting measure, it was nonetheless created and actively promoted as a standard for performance-measuring and target-setting by global institutions that structure markets in the first instance. Over the past few years global institutions have developed a number of international input-output databases to measure the participation of single countries in GVCs by measuring their input-output structure (Cattaneo et al 2013, 9). Two of the main international databases created allow the examination of foreign value-added in export production. The first is the OECD-WTO Trade in Value Added, a TiVA database which presents input-output indicators for 40 countries broken down by 18 industries. The second is the UNCTAD- Eora GVC database, which covers the data of 25-500 industries in 187 countries between 1990-2010 (Gereffi and Sturgeon 2013, 355). Such initiatives and other similar efforts to compile inter-country input-output tables, allow for a better understanding of the value-added from trade, and distinguish sources of value as well as the position of countries in terms of their participation in a GVCs overall and information about given sectors in particular.

TiVA statistics do not simply record the activity of producing goods and services, however. Rather, by providing a standard framework to analyse value chain performance, they enable new ways of thinking about the economy. TiVA statistics facilitate a shift from an old paradigm of trade theory based on the generation of outputs from a bundle of inputs within a single location, to conceptualising the production process in terms of component tasks distributed among participants linked within a chain (Stephenson and Pfister 2016, 10). They have thus worked to reframe the 'economy' as an amalgamation of networked rather than self-contained activities. But beyond their performance as systems of meaning, by identifying target priority areas along the value chain these statistics influence behaviour, acting as a basis for policy action to improve relevant TiVA indicators (FIAS 2007).

On the last point TIVA provides insights into the impact of industrial upgrading strategies, consolidating the latter as a policy target. The process of capturing a greater share of the value produced is known as moving up the chain, and is often considered as a broad indication of expanding and upgrading industrial activity (Baars and The IGLP Law and Global Production Working Group, 2016, 68). Increasing value-added through upgrading has come to be seen as a key measure of economic performance of a particular territory, and the uneven distribution of benefits among actors participating in the chain is attributed to variation in the amount of value (Baars and The IGLP Law and Global Production Working Group, 2016, 68). TiVA then acts as an indicator to policymakers of the need to adopt policies that support upgrading. TiVA also provides an example of statistical measures of economic performance as one of the multiple ways of framing, governing and effectuating, rather than simply describing the economy as an object of intervention. It further demonstrates that GVCs/GPNs are enacted through the adoption of technical practices, measures and representations, and that GVCs/GPNs are in fact an effect of such technologies and measures and the standards they set.

Finally, it is important that the core agendas, interests and power relations that underly the use of particular terminology, forms of measurement and methods of calculation are identified. Spatial planning and the discourses that surround it can be understood as a form of governmental technology through which territoriality is materialised and new spatial formations are made present in social life. But while constructing the architecture of global activity is still largely seen as a function of *national governments*, as evidenced above, the tools and strategies that become central to state practices are provided to governments by *global development institutions,* consolidating new forms of state spatiality and developing new modes of planning and governing space.

The chapter highlighted the role of the World Bank in particular in developing and diffusing spatial economic policy programs that aim to restructure economies towards GVC/GPN industrialisation and development, with an emphasis on economic zone-based policymaking. Through an analysis of key policy publications and reports issued by the World Bank the chapter provided a detailed account of the technical planning and development systems -rules, policies, standardised practices and representations- that materialise ideas around GVC development and put conceptual models into practice. In particular, the chapter focused on policy frameworks for land governance, infrastructure development, and new statistical measures of trade. These key organising discourses are adopted by governments across the world to 'frame' markets towards greater connectivity, particularly in light of the global expansion of market-seeking FDI and the dominance of a spatial growth logic rooted in the idea of expanding and strengthening production chain participation as a strategy for development.

Examining the ideas and practices that underpin China's global development partnerships in the next two chapters illustrates how global institutions play the role of transmitters and mediators of prescriptive development models, even where they are not direct actors or coordinators in implementing them. The chapters show that as an emerging economic actor with an interest in safeguarding its foreign investments, China has maintained the established, market-friendly approach of the World Bank in its overseas connectivity-driven cooperation initiatives in Africa.

4. Assessing China’s involvement with Africa through trade and investment: A case of paradigm maintenance

The previous chapter highlighted the normative aspect of global institutional power in Global Production Networks. The chapter showed how global institutions create systemising effects in the global economy by standardising particular development policies and practices across countries and regions. This chapter builds on the previous discussion by shifting attention to the complexities of planning for GVC development, a theme that will take priority in the remainder of this work. In this chapter and the next the analysis unpacks the complex politics of Chinese GVC/GPN-oriented development initiatives, before considering in later chapters the grounded relations and interactions in sites of Chinese engagement that make the contemporary drive to economic integration even more complex.

This chapter reviews the literature on the impact of China’s investment flows on Africa, then examines China’s involvement with Africa through trade and investment. The chapter argues that Chinese trade links and investment flows in Africa have largely maintained, rather than challenged the liberal international order. Particular attention is given to growing Chinese Overseas Foreign Direct Investment (OFDI) in manufacturing and the forms of industrial cooperation that have emerged from these flows. The analysis shows that while global institutions set the standards for development policymaking and practice, these standards are then appropriated by actors in the global South and mobilised to advance specific political-economic interests. The chapter refers to this as ‘paradigm maintenance’, a term used to convey the unity of discourse between Chinese and conventional development actors in the global North while recognising the unique imperatives that underpin these policy transfers. The present chapter also outlines the implications of paradigm maintenance in Chinese trade links and investment flows for Africa’s development.

This chapter can be broken down into two main parts. The first section reviews the scholarship on China’s involvement with Africa, showcasing a range of theoretical approaches and analytical perspectives addressing the impact of Chinese trade links and investment flows on Africa’s development, focusing particularly on cooperation in the manufacturing sector. The second section will present evidence that China’s approach to industrial cooperation maintains a neoclassical development paradigm advanced by global institutions and development actors, rather than offering an alternative growth path. This section first examines China’s role in shaping the global economic order, the broader policy environment in which its activities take place, to demonstrate how China’s involvement in global governance aims to maintain, rather than challenge the liberal world order. The discussion then examine how paradigm maintenance is expressed in emerging patterns of industrial cooperation between Africa and China in particular.

4.1. The impact of China’s investment flows on Africa’s development: A review of the literature

Mohan (2013) identifies three different perspectives within research on the impact of Chinese trade links and investment flows on Africa’s development (Mohan 2013, 1258). The first view frames China as an imperialist power looking to dominate African markets and resources. The second advances the argument that cooperation with China provides an alternative development model capable of catalysing African industrialisation and structural transformation. The third perspective advances a more complex and less reductionist view on China's engagement with Africa, and argues for the need to examine the particular agencies and relations, ideas and practices involved in Chinese initiatives in Africa to understand the full scope of their impact and implications for development in different countries in the continent.

First, a significant body of literature on China's engagement with Africa frames China as a rising imperial state seeking to consolidate access to African resources and Markets (Moyo 2012; Southhall and Melber 2009). Within this narrative the main driver behind China's relationship with Africa is the search for resources, raw materials, energy and land to feed China's rapid economic growth. Moyo (2012), for example, argues that China's pursuit of global commodities – or it's 'resource rush' to extract raw material, including energy and minerals, and secure important resources, including land and water - is driven by rising demand for resources needed to fuel China's economic growth. The complex and multifaceted modes of global intervention adopted by China, including aid and diplomatic exchange are by-products of its attempts to capture Africa's untapped resources and markets. Infrastructure provision and development cooperation also constitute part of Chinese efforts to facilitate extraction and delivery of resources amid a rising threat of resource shortages (Moyo 2012).

Similarly, Campbell (2008) draws a comparison between China's internationalisation in Africa and the West's neo-colonial engagement with the continent. Campbell seeks to examine whether China's economic interventions abroad reproduce the same forms of domination, extraction and exploitation practiced by European powers and perpetuated under US global hegemony. The author argues that although what China is doing in the global commodity space does not constitute imperialism just yet, China's range of interventions to support its investment and commercial engagements with Africa are driven by strategic and geopolitical calculations, namely the search for resources. To expand its reach China caters to the needs of host nations in a vast array of areas beyond economic cooperation, including trade and infrastructure relations, human resource development, culture, education, environment and media (Campbell 2008). Other authors have similarly highlighted the dynamics of accumulation by resource extracting Chinese capital as a central element of China's engagement in Africa (Ayers 2013, 231).

It is commonplace for narratives on Chinese imperialism to frame China's role in international markets for natural resources as resembling the widely critiqued economic agenda of the IMF and World Bank (Ayers 2013). Within this narrative China's quest for markets and resources constitutes a new phase of global capitalism characterised by the intensification of processes of primitive accumulation, partly to allow over accumulated capital to exploit these assets, partly due to an increased global demand for fossil fuel and quest for energy security (Ayers 2013, 240). Alternatively, there is a growing recognition among critical scholars that, against this backdrop governments and populations are not passive recipients in the reshaping of a multipolar world, and that there is a need to account for the full range of forces that shape global encounters (Mohan 2013). Campbell, for example, acknowledged the capacity for imperial plunder in the extraction of minerals and energy in Africa. The author notes however that it would be wrong to assume that China's impact only raises problems, and that the inflow of Chinese capital could potentially have a profound impacts if exploited by African governments towards structural transformation and reconstruction (Campbell 2007, 100-102)

Accordingly, a second approach argues that China provides an alternative to mainstream methods and ideologies, though opinions differ on the consequences of Chinese development interventions. Based on a postcolonial reading of China, this approach locates Chinese development cooperation within the rubric of emerging South-South cooperation (Quadir 2013) and examines the prospect of Africa joining an emerging 'Beijing consensus' based on the Chinese model of state-guided capitalism (Cheru and Obi 2011, 72). Critical of the Bretton Woods system, this approach challenges mainstream western discourse that frames China as exploitative, and largely regards the rise of China as an opportunity for host countries to engage in mutually beneficial partnerships and stimulate productive activity. This line of scholarship has examined the benefits of Chinese development assistance (Berthelemy 2011), the possibility of a shift in the epicentre of the global economy from North America to East Asia (Arrighi 2007); the potential to reform the trade and aid system to alter North-South trading patterns and redress imbalances (Mayer and Fajarnes, 2005); and the importance of the policy lessons offered by China, in particular the role of the developmental state in guiding markets through institutional reforms, incentives and infrastructural investments (Cheru and Obi 2011, 73), among other topics. Asante (2018) provides an elaboration of such claims (while cautioning, however, that the type of cooperative interdependence fostered by China does not necessarily guarantee win-win development (Asante 2016, 262)).

One area of debate concerns the contribution of Chinese trade and investment cooperation to Africa's economic growth. Of relevance are debates on cooperation in the manufacturing sector. Authors supportive of China's role have challenged the commonly-held view that Chinese imports undermine local manufacturing and instead point to the capacity for Chinese enterprises to foster competitive manufacturing and encourage development (Brautigam and Xiaoyang 2014, 79). Within this perspective authors argue that there are various dimensions to Chinese FDI flows that could have positive impacts on Africa's growth. Some authors cite the complementarity of Chinese investments to African needs and priorities as growing Chinese investments cover key economic sectors (Cheru and Obi 2011, 73; Shelton 2016, 261). Others argue that high workforce and enterprise localisation rates have aided knowledge acquisition and enhanced employment. Yet others have pointed out that China's willingness to invest in a wide range of economic activities, including investment in hydrocarbons, mining, infrastructure and communication will lay the foundation for economic take-off. (Shelton 2016, 261). Large Chinese investments in infrastructure, including ports, airports, power plants and roads are already providing opportunities to African producers to move goods to regional and global markets, it is argued, providing a boost to African economies (Cheru and Obi 2011, 73).

Finally, the third approach stresses the need "demystify" China's engagement with Africa, moving beyond totalising geopolitical narratives to understand the multiple agencies and motives, and evolving relationships working to construct China-Africa relations (Liu et al 2020, 2) . This line of scholarship paints a complex picture of China's engagements with Africa, with studies privileging different aspects of China's internationalisation. One approach focuses on the motivations of Chinese actors, seeking to unpack the dynamics of Chinese development by exploring the ideas and practices employed by these actors (Chen 2019; Summers 2016), or the multiple stakeholders undertaking Chinese projects (Gu et al 2016; Liu et al 2020). Others examine the active role played by African agents in shaping the outcomes of engagements with China (Cheru and Oqabay 2019; Mohan and Lambert 2013; Xiaoyang 2019), and yet others have prioritised a bottom-up analysis of the political-economic aspects of Chinese development interventions (Fei and Liao 2020; Mohan 2013; Mohan and Lambert 2013, Oya and Schaefer 2021). While some studies have highlighted opportunities and resources provided by Chinese engagement (Cheru and Oqubay 2019; Gu 2009; Xiaoyang 2019; Wang and Wang 2011), others have cast doubt on the capacity of such interventions to cultivate sustained industrial development (Fai and Liao 2020), and yet others have also discussed the reproduction of capitalist practices and ideas in Chinese development practices (Mohan 2013; Summers 2016). A common concern, however, is around the methodology that should be undertaken in studying China's global interventions, with authors arguing that inductive, in depth methods can provide critical insights on Chinese strategies and projects.

Within the approach described above, and particularly in studies on cooperation in the manufacturing sector a supportive view of China-Africa cooperation prioritises African agency, arguing that Africa should do more to transform the existing asymmetrical pattern in trade with China (Cheru and Oqabay 2019; Cheru and Obi 2011; Obi 2019; Pairault 2019, 11; Poon 2014, 30). These scholars take the position that a greater developmental role of the African state is needed to ensure that Chinese investments will contribute to Africa's industrialisation and structural transformation. A win-win relationship with China is thus neither certain not guaranteed, and it is only through strategic reforms and disciplined planning that African economies can harness the opportunities of China-Africa cooperation, specifically market opportunities provided through private sector engagement (Cheru and Oqubay 2019; Gu 2009). According to Cheru and Oqubay (2019, 282), Ethiopia provides an example as one of the few countries that have managed to successfully model China's success in raising productivity, diversifying its economic base and moving goods to local, regional and global markets as a result of its engagement with China. In practice, they claim, strategic reform entailed creating a long term-development vision, displaying strong political ownership, prioritising investment in energy and infrastructure, learning by doing (policy learning) and emulating and pragmatisms and policy flexibility. In the bigger picture industrial policy is placed at the heart of development policies, and emphasis is made on strong state institutions and policies that support nationally defined targets.

This thesis positions itself within the third approach to studying China's development cooperation, which examines the complex dynamics and interactive processes involved in implementing China's overseas development initiatives. Applying an assemblage framework, a theory of agency and knowledge, the analysis will consider the active role of a range of actors shaping development possibilities and particular trajectory of Chinese cooperation programmes, while also examining the underlying logic and core ideas that underpin Chinese development policy and practice. Contrary to the perspective that sees potential for Chinese investments to play a developmental role, the empirical analysis in this research finds that there is more continuity between China's overseas development framework and the normativities of global development than there is divergence. The analysis reinforces claims made by even the most enthusiastic supporters of China-Africa cooperation, that Chinese actors behave much in the same way as those in any other advanced industrialised country in conducting economic relations (Cheru and Oqubay, Gu 2009, 572; Pairault 2019, 11).

4.2. Framing China's involvement with Africa: Paradigm maintenance in Chinese development policymaking and practice

Before examining emerging patterns of investment and trade between Africa and China, this section will discuss China's role in shaping the contours of the global economic order. Amid increased criticism of free-market policies and US stewardship of the international economy and financial markets, an ongoing debate in research on China-Africa relations questions whether China's role in the global economy is helping to bring about a 'post-neoliberal era' (Hart 2010 118) by offering an alternative model for growth and development. Or, from a different angle, onlookers have been questioning whether we are witnessing a turn in global development policymaking towards East-Asian-inspired economic development with its tendency to favour state-centred, rather than global free-trade oriented solutions (Hart 2010; Poon 2014, Wade 2012; Wade 1996). Understanding the way in which China is attempting to influence the broader policy environment in which its activities take place will help to answer the question of whether China's overseas engagements converge or diverge from the mainstream approach of development actors in the global North.

The policies aimed at promoting Chinese investments abroad represents a form of paradigm maintenance between Chinese policymakers and traditional global development actors, particularly with regards to the appropriate role of the state in the economy. This unity of discourse is demonstrated in China's ongoing efforts aimed at establishing open, demand-driven trading environments positioned spatially and economically in relation to its own economy through various overseas development initiatives. These initiatives engender a form of development that is more sympathetic to the role of free enterprise, foreign investment and market forces than China's national developmental vision. This is stated explicitly by Chinese government actors who have declared their commitment to "uphold the global free trade regime and the open world economy" and dedicated their efforts to "promoting orderly and free flow of economic factors, highly efficient allocation of resources and deep integration of markets" (National Development and Reform Commission, 2015).

4.2.1. Defining paradigm maintenance

The term 'Paradigm maintenance' is used in this research to convey the unity of discourse between Chinese and conventional development actors. It indicates the reproduction in China's overseas industrial cooperation initiatives of the mainstream development logic that FDI will stimulate demand in the host economy, leading to emergence of basic industries with little support for enhancing the regulatory capacity of the developmental (host) state to direct the market towards national development priorities. Contrastingly, the Chinese state played a central guiding role in reviving the Chinese economy while moving in a free-market direction during the late 1970s. The Chinese government developed its administrative, legal and regulatory capacity to guide the market in favour of national development (Cheru and Oqubay 2019, 296).

The term paradigm maintenance was first used to describe the World Bank's ability to deploy unorthodox measures while remaining committed to a free-market agenda (Wade 1996). The term first appeared in the work of Robert Wade on the production of the World Bank's landmark report 'The East Asian Miracle' in 1993, which sought to interpret east and south-east Asia's development experience and draw lessons for developing economies. Wade's account follows Japanese attempts to change the World Bank's core ideas about the role of state authorities in a country's strategy for economic development, focusing on the powerful role of the state in east Asian accumulation. As the driving force behind the study, the Japanese government encouraged clarifying the benefits of sectoral industrial policies implemented in Japan, Taiwan and South Korea, highlighting in particular the importance of a regulated, non-liberalised financial system directing credit to priority uses. Directed credit was a principle instrument of Japan's industrial strategy and subsequent 'miracle' that Japanese policymakers argued could be applied to other parts of the globe (Wade 1996, 11).

As Wade concludes however, ultimately the advice issued in the Report, while accommodating elements of Japan's development strategy, maintained the World Bank's established, market oriented position favouring liberalisation. A 'middle road' advanced by the Report encouraged low-income countries to implement policies to strengthen their enabling environment for private sector growth and competition, stressing that a market-friendly approach was not necessarily a laissez faire-approach, and that governments should step in with public spending (implementing horizontal policies to level the playing field) where markets fail, on infrastructure and education for example (Wade 1996, 6). The report however took a strong view against industrial sectoral policies targeting particular industries (vertical policies) and advocated more, rather than less, openness. In summary, for low-income economies to prosper they must open their economies to international markets. The state acts as a facilitator for private-sector exchange rather than director of those exchanges, its role limited to the provision of regularity frameworks that ensure a market-friendly environment. The dynamics around creating the report and the policy recommendations it presented serve to confirm that as a leading generator of ideas about economic development, the World Bank dictates the terms on which low-income countries are inserted into global markets (Wade 1996, 5)

Similarly, in a conjunctural analysis of post-war development, Gillian Hart (2010) examines the historical paradigm-protecting reproduction of development discourse and practice by development institutions. Hart's analysis highlights the "constant redefinitions of official discourses and practices of Development since the 1940s" (Hart 2010, 117), arguing that at various turning points global capital accumulation is actively created and reworked within distinctive geopolitical, financial and industrial reconfigurations. Practices and discourses of Development, Hart argues, are dialectically interconnected with the historical development of capitalism, both emerging from and working to consolidate processes of capital accumulation. Ultimately there have been various turning points in the official discourses and practices of development since the 1940s, including the reconfiguration of global financial arrangements in the 1970s, the market-led liberalisation of the 1980s and the more recent market-friendly interpretations of state intervention (2010, 126).

Throughout these phases Hart does not see a rift in the relationship between development discourse and practice -what she calls 'big D development'- and the development of capitalism (described as interconnected processes of creation and destruction resulting from the mobilisation of market forces) – what she refers to as 'little d development'. The former transforms to manage and contain the destructive fallout/tendency of the latter.

Far from viewing capitalism's phases as a result of disembodied market dynamics, Hart nonetheless notes the limitations of casting (D)evelopment in terms of power/knowledge, framing the latter as one of a range of interconnected arenas inseparably linked with the uneven dynamics of capitalist (d)evelopment. (D)evelopment is "the product of deliberate power ploys…", and is partially enacted through the operation of state-political controls. Similarly, Wade (1996) also accounts for the production of text, and takes into consideration the "political and economic substance of the field of forces in which the Bank operates" (Wade 1996, 3), concluding that the Bank acts as a vector for the interests of leading member states. Thus, and according to this view the adoption of particular development discourses and technologies in recent decades unfolds within larger configurations of power, responding to market actors and managers of financial capital, but also (US) government actors with whom their interests are aligned. The shaping role of policy and market actors within global institutions like the World Bank ensures that redefinitions in development discourse and practice maintain rather than challenge the neoliberal orthodoxy they put in place despite the seeming shift in global norms to favour a developmental role of the state (Wade 1997).

4.2.2. China's role in global economic governance

A particularly noteworthy indication of China's convergence with the international system is its increasingly active role in global economic governance, referring to the rules, norms and institutions created to manage the global economy in the post war period (Gray and Gills 2016, 560-561; Huang and Kurlantzick 2020; Pathirana 2018, 129). As China seeks opportunities to participate in global economic policymaking, its representatives advocate reforms aligned with a free-market development paradigm advanced by traditional development actors, rather than seeking to redesign official discourses and practices of development (Huang and Kurlantzick 2020). China's involvement in global governance began in the late 1970s and early 80s, as reform-seeking policymakers began gradually increasing their participation in the organisations, institutions and rules set up after World War II. During that period major economic reforms were being implemented in China that encouraged the inflow of capital and technology, launching the country's growth and gradually expanding its global reach. China sought to join more global financial and trade institutions, including the International Monetary Fund, the World Intellectual Property Organization, and the Asian Development Bank (Huang and Kurlantzick 2020).

By the early 1990s Beijing proved willing to embrace multilateralism and integration into global governance institutions, but remained a weak actor in global governance (Huang and Kurlantzick 2020). As its economy grew, however, China took on a more active role in international institutions while continuing to signal its willingness to honour international rules and norms. After surpassing Japan to become the world's third biggest economy in 2010 China earned the third greatest percentage of votes in the World Bank and the IMF (Huang and Kurlantzick 2020).

With the increased outwards flow of Chinese investments in recent decades, one area that received attention from Chinese policymakers looking to influence the rules of international economic governance is global investment governance. For decades states and intergovernmental organisation had tried and failed to conclude a multilateral legal framework for the promotion, protection and liberalisation of investments, mainly due to their inability to agree on standard provisions for investment protections. Instead, rules for the promotion and protection of investments have been agreed through Bilateral Investment Treaties (BITs) and Free Trade Agreement (FTAs) which compose a web of investment treaties commonly referred to as International Investment Agreements (IIAs) (Pathirana 2018, 130). The fragmented and decentralised nature of investment governance, coupled with a Chinese desire to safeguard growing overseas investments under the Belt and Road Initiative -a global infrastructure development strategy launched by the Chinese government in 2013- motivated Chinese officials to initiate efforts towards establishing an international legal framework on the protection of investor interests. China's own approach when concluding BITs widely reflected the standards and norms of the international system, signalling convergence between Chinese and global economic governance (Pathirana 2018, 139).

Chinese efforts to steer global governance towards creating a multilateral framework for investment governance increased during it presidency in the G20 in 2016. China formed the G20 Investment Working Group to support the adoption of the G20 Guiding Principles for

Global Investment Policymaking. It further provided political leadership on increased multilateralism in the promotion and protection of foreign investment in 2017 offering support for developing a multilateral investment framework under the auspices of the WTO (WTO 2017).

Complementing China's increasing support for investment liberalisation are international efforts by Chinese government bodies to consolidate a multilateral consensus on global infrastructure development to drive global development and growth. In 2019 China's Ministry of Finance signed an MoU with a consortium that included the World Bank, European Investment Bank, the Asian Infrastructure Investment Bank and the Asian Development Bank to promote infrastructure and connectivity (Liu et al 2020; MCDF 2019).

As discussed in chapter 3, foreign investment facilitation and trade liberalisation on one hand, and connectivity-driven infrastructure on the other, are two key pillars of economic globalisation, creating the enabling spatial conditions to construct GVCs and facilitate global production and trade. China's approach to economic globalisation, which is informed by the country's emergence as leading global investor thus articulates the widely-accepted standards of global economic governance. As Pathirana (2018) notes:

> *"China has emerged as a global superpower with phenomenal economic growth and the political will to play an enhanced role in global affairs and the global economy. Consequently, it has become a defender of economic globalisation, a supporter for multilateralism in global economic governance, and a promoter of investment liberalisation. These phenomena have made international investment one of the fields of global governance most likely to be affected by China's rise as a global superpower in general, and its rise as a global investor in particular" (Pathirana 2018, 153).*

It must be noted that China continues to boost its power by articulating its interests through alternate institutions and multilateral groupings (as well as pursuing bilateral mechanisms). But the scope for such initiatives remains limited, first due to regional rivalries among member states and challenges to developing and implementing unified policy (Grace 2018). Second, the expansion of Chinese overseas investments would best be facilitated by a global system of free-market competition, rule of law and multilateralism, delivered through global rather than regional institutions. In this regard, the capacity of global institutions to regulate international behaviour by making free-market discourses appear as the only legitimate and rational option serves China's interests in expanding trade and economic cooperation particularly as few concrete economic instruments have emerged from alternate international fora (Lukin 2007). Finally, with the greatest share of its outward investments directed to Europe and North America (World Bank 2021), it is in China's interest to cooperate with the West. This has resulted in China turning to existing institutions to advance its power and strengthen its position as global investor and development provider.

Paradigm maintenance in Chinese development policymaking has implications for development cooperation with partnering countries, and for South-South cooperation in particular. As authors have noted South-South economic flows are largely being driven by China (Poon 2014, 1). China is the largest developing country investor and the World's fourth largest investor (UNCTAD 2022, 5). It is also among the few Asian economies that have developed its domestic innovation capacity to the point of creating regional and global brand names and commercialising into new sectors (Wade 2012, 233). As China's commercial interests and manufacturing cooperation initiatives in Africa continue to grow, highlighting China's role in global economic governance is crucial to understanding the potential structural impact of these engagements on receiving economies.

4.2.3. Paradigm maintenance in Chinese development practice: Assessing engagement with Africa through trade and investment

China's engagement with Africa is complex and multifaceted. Chinese flows encompass various forms of foreign financing, such as aid, loans (mostly to fund infrastructure projects), and Overseas Foreign Direct Investment (OFDI), alongside international trade flows. As key elements of China's engagement with Africa, bilateral trade and direct investment have been steadily increasing over the past two decades (Dollar 2016, viii). Trade ties between China and Africa began to increase sharply in the 1990s, with African exports to China rising from close to zero in 1998 to $50 billion in 2008, and Chinese exports to Africa increasing fifteen fold in that same period (Berthelemy 2011, 9). In 2009 China replaced the United States as Africa's biggest trading partner, and in 2017 bilateral trade -the import and export value of China and Africa- reached $170 billion (Asante 2018, 268), rising to $192 billion at the end of 2019 (China Africa Research Initiative 2022). Although modest, Chinese investments in Africa are also on the rise. Accounting for no more than 5 percent of FDI flows into the region (UNCTAD 2015), China's OFDI to Africa is nonetheless growing at remarkable speed relative to its investments elsewhere (Dollar 2016, 34). The stock of Chinese investments in Africa has increased by more than 60 times since the year 2000s and is likely to continue growing due to a surge in private investments and the building of new Special Economic Zones under the Belt and Road Initiative (Asante 2018, 269; Dollar 2016, x).

Chinese trade and investment engagements in Africa are driven primarily by China's growing demand for energy and minerals to fuel its growth (Dollar 2016, xiii). Increased commodity demand from China has driven up prices and trade volumes, subsequently resulting in faster growth on the continent in the last two decades (Shelton 2016, 261). Alongside overall GDP growth, the per-capita GDP of the average African economy grew to 2.8 percent in the 2000s from 0.6 percent per annum in the 1990s, indicating improved living standards and progress on poverty reduction (Dollar 2016, 2). And yet this involvement is not without controversy. While expanding African exports to China, there is a growing concern, even among those who see potential for mutual gain in China-Africa investment and trade relations, that the types of trade patterns emerging are similar to those that have dominated global trade since the colonial era (Asante 2018, 266; Dollar 2016, 5). Despite improved economic performance, increased trade and bilateral interaction is largely based on a division of labour whereby African countries specialise in the production of raw material for export with little or no value added, and import manufactured goods, mirroring western trade patterns.

The rise in African exports to China is heavily concentrated in a few major oil producing countries, including Nigeria, Angola, Sudan, Equatorial Guinea, Gabon and Ghana (Obi 2019, 176). Africa is China's second largest source of oil after the Middle East, accounting for approximately 22 percent of China's oil imports. Exports are dominated by China's three state-owned oil companies, China National Offshore Oil Corporation (CNOOC), China National Petroleum Corporation (CNPC) and China Petroleum and Chemical Corporation (Sinopec), which have either acquired stakes in established African operations, or have entered into prospecting deals and exploration contracts with domestic firms (Obi 2019, 173). Other countries that depend on the China market provide minerals (coper, cobalt, coltan) and agricultural raw material (cotton, sesame) (Berthelemy 2011, 10).

Furthermore, although bilateral trade has been increasing in the past two decades the value of African exports to China has been in decline since 2014 due to weak commodity prices even while Chinese exports to Africa remained steady (China Africa Research Initiative 2022). Growth levels in Africa have since declined, with both high levels of growth and the subsequent slowdown linked to China (Dollar 2016, viii). Not only is export value bound to drop with the declining value of certain raw material as theories of peripheral development have argued, but as China moves away from a resource-intensive growth model, its appetite for natural resources is decreasing (Dollar 2016, xvi) calling into question how long the upward trend in bilateral trade might continue. The value of China-Africa trade in 2020 fell to US$176 billion, a significant drop from the previous year due to supply chain disruptions by COVID 19 (China Africa Research Initiative 2022). But even before the pandemic, China began curbing import demand (commodities and oil) as it began rebalancing its growth away from investment and towards domestic consumption (Asante 2018, 271, Dollar 2016). In assessing the impact of resource-based trade, therefore, a key consideration is the risk of reproducing an asymmetrical relationship that will inevitably reinforce Africa's marginal place in the global system.

Chinese Overseas Foreign Direct Investment (OFDI) in manufacturing

While China's deepening engagement with Africa has largely been associated with resource related trade and investments, there is a growing interest in Chinese outward investment in services and manufacturing (Cheru and Oqubay 2019; Gu 2009; Xiaoyang 2019; Wang and Wang 2011). From a developmental perspective, the relocation of Chinese manufacturing firms to Africa has the potential to provide new development opportunities for national African economies. A potential increase of investment in sectors where value can be added, as opposed to merely the production of raw material- can contribute to job creation, skills development and technology transfer, helping African economies move up the production ladder. In this respect, attracting manufacturing OFDI is particularly important given the slowdown in growth of commodity imports by China, whose trade with Africa continues to be dominated by primary agricultural commodities, oil and minerals. In short, the capacity for development and broader structural transformation in African economies will depend on the latter's ability to develop their manufacturing capabilities and diversify their exports by strategically coupling with Chinese firms (Broadman 2007, 291).

On a global level, the share of manufacturing in total total OFDI is dwarfed by investments in the primary sector (Cheru and Oqubay 2019, 299). In African countries in particular the *size* of Chinese investments is correlated with natural resource wealth, with the largest stocks of investment in resource-rich Democratic Republic of Congo, Angola and Sudan (Dollar 2016 xi). With regards to the *number* of firms investing however, most Chinese OFDI deals are not in natural resources and their locations do not correlate to natural resource abundance. In fact, the highest volume of deals are in services (60 percent), with manufacturing accounting for 20 percent of deals and raw material accounting for 20 percent (Dollar 2016, 42). Further, among the largest recipients of OFDI deals are countries that are resource poor, including Egypt and Ethiopia (Dollar 2016, 41). Within a range of non-resource related sectors there have been notable examples of networked production and trade carried out in a number of sectors that include food, apparel and automotive assembly and parts, the latter concentrated in South Africa (Broadman 2007, 290). Other non-resource related sectors of investment by Chinese capital include transport, construction, power plants, telecommunication and tourism in Ghana, Senegal, Tanzania as well as South Africa. Chinese enterprises are also said to be more active than others in regional trade (Asante 2018, 270).

With projects distributed across at least 17 sectors, manufacturing investments are seen as having greatest potential for enabling African countries to evolve beyond traditional export markets, engage in networked production and create higher value-added export opportunities (Dollar 2016, 42). Despite constituting a small overall share of Chinese FDI in comparison to the raw commodities sector, and a small volume of OFDI deals compared to the services sector, the number of Chinese manufacturing firms in Africa is relatively substantial. According to a 2017 McKinsey report, out of 10,000 firms operating in Africa around a third are manufacturing firms, mostly small and medium size businesses (McKinsey 2017, 32)) (only a very few large Chinese private manufacturing firms have invested in Africa thus far, including Huawei Technologies, Holley Group and Zhongxing ZTE Corporation (McKinsey 2017, 17; Gu 2009, 574)). These firms are largely private, as opposed to the large State Owned Enterprises that dominate natural resource extraction, and according to some have the potential to play a positive role in technology transfer, skills development and the diffusion of productive activity (Dollar 2016, xi; Wang and Wang 2011).

Noteworthy for African countries therefore, given that highly integrated supply chains account for a large and growing share of world trade, is the ability to integrate into Chinese manufacturing networks, acquire technology and skills and engage in intrafirm or networked trade. And yet research has shown that the participation of national firms in Chinese productive activity has been limited, with only weak linkages developing between Chinese and African firms (McKinsey 2017; Oqubay 2019; Oqubay and Cheru 2019). There are few signs of major participation in global value chains and, with the exception of the South African automotive assembly and parts sector, what opportunities there are for joining Chinese production chains have remained concentrated in low-skill labour-intensive sectors such as food, horticulture and apparel (McKinsey 2017, 32, 56; Wang and Wang 2011, 100). As a consequence, exports of African firms to Chinese markets are insignificant, and there is even evidence that African producers have been facing growing competition from Asian firms (Brautigam and Xiaoyang 2014, 79; McKinsey 2017, 46). The latter have benefited from a variety of advantages over competitors over the years, including preferential policies offered by the Chinese Government, a well-established manufacturing system, and comparative advantage in certain industries (Brautigam and Xiaoyang 2014, 79; Mckinsey 2017, 47; Wang and Wang 2011, 115).

Some authors have pointed out that the question of whether Chinese manufacturing investments have led to some level of industrialisation and structural transformation is highly variable and to a degree dependent on host economy governance. Domestic government policies and institutional context determine whether or not an economy is able to overcome value-capture challenges and generate linkages, according to this perspective (Oqubay 2019, Dollar 2016, 4). Interestingly some authors have attributed questionable environmental and labour practises in Chinese investment projects to host governments' inability to enforce social and environmental policies (Moyo 2016), rather than growing Chinese exploitation of both the environment and a cheap and flexible workforce in Africa (Sanusi 2013).

There are two problems with arguments that overemphasise African agency. First, they fail to take into account deeply asymmetrical contexts in which host economies adapt to the needs of offshoring capital and not the other way around. Second, these arguments disregard the structural dynamics that have motivated China's industrial cooperation initiatives, as well as the underlying assumptions, motivating logic and core ideas adopted in Chinese development policy and practice in order to achieve these structural objectives. Chinese overseas industrial cooperation initiatives maintain the normative logic of mainstream development. This is evident in an approach that appears to prioritise the role of Chinese FDI in stimulating demand in the domestic economy and encouraging emergence of basic industries with little support for enhancing the regulatory capacity of the host state to direct the market towards national development priorities. This stands in contrast to the role played by successive developmental Chinese governments in economic development, where the national government developed its administrative, legal and regulatory capacity to guide the market in favour of national development (Cheru and Oqubay 2019, 296).

Research has shown that Chinese manufacturing firms in Africa largely tend to concentrate in economic zones, rendering zones an important site of research for understanding the drivers, dynamics and implications of Chinese manufacturing investments. As the next chapter will demonstrate the policy framework for China's Africa zone programme consolidates a global GVC/GPN agenda rooted in the orthodoxies and normativities of international development, defining the focus of development discourse on processes of coordination and exchange led by nodal firms. Accordingly, zones promote market-friendly, firm-coordinated approach to development characterised by an increased dependence on FDI for internal development, creating dependency on external demand rather than internal consumption as a motor for growth. At the same time the capacities of central state institutions that have traditionally played a role in supporting industry and the export capacity of local firms are weakened. Meanwhile governments step in with public spending where markets fail, providing infrastructure and services that strengthen the enabling environment for the Chinese firms that dominate export-oriented production.

5. Global Value Chain Development with Chinese characteristics: Evidence of paradigm maintenance in China's overseas ETCzone programme

The previous chapter addressed the impact of Chinese trade links and investment flows on Africa's development. The discussion focused attention on the drivers of Overseas Foreign Direct Investments (OFDI) in manufacturing, and the impact generated by forms of industrial cooperation that have emerged from these flows. This chapter will build on the previous discussion around the maintenance of a traditional paradigm of market-friendly policies in Chinese overseas development discourse and practice, in particular with regards to the strategies underpinning Chinese manufacturing investment flows. Drawing on key organising discourses outlined in the chapter 3, this chapter examines the role of global economic zone development models in Chinese policy transfer in the context of China's overseas Economic and Trade Cooperation Zone (ETCzone) programme, which was launched to facilitate the relocation of Chinese manufacturing and service investments abroad. The analysis finds that ETCzone initiatives are subject to the conditioning effect of global economic relations and the prevailing norms and policies that regulate them, while displaying unique features that shed light on China's approach to international development.

The chapter thus argues that the spatial model adopted by Chinese zone operators in the ETCzone program converges with the traditional, market-oriented terms for managing development partnerships imposed by leading international agencies and development institutions. The chapter will explore the implications of paradigm maintenance in Chinese zones for understanding the development impact of zone-based manufacturing OFDI to the African continent. Emphasising the mobility and translatability of policy knowledge, this chapter further argues that although consistent with emerging trends, Chinese zone initiatives are adapted to the strategic imperatives of the actors involved in developing them. Within a centrally-coordinated agenda driven by the political-economic concern of enabling the export of Chinese surplus capital, ETCzones have become anchors of cross-border regional partnerships aimed at enhancing the global connectivity of China's subnational regions. As a model of engagement, cross-border regional cooperation thus materialises as one way in which China is redefining globalisation with its own characteristics within an emergent trajectory that this work terms as Global Value Chain development 'with Chinese characteristics'.

The discussion will begin by examining the background of China's overseas ETCzone programme, first tracing the development of its vision and its recent positioning within the Belt and Road (BRI) initiative, then outlining the geography of this overarching framework. Second, the chapter will provide evidence of paradigm maintenance in the ETCzone programme, arguing that the ETCzone policy framework differs significantly from the domestic Chinese model of economic zone-based industrialisation, which was less influenced by free-market institutions and dictates. Finally the discussion will turn to the complex politics surrounding the ETCzone programme. To understand the particular features of a Chinese GVC/GPN-oriented development model, the analysis will examine who the actors are that mediate these spatial-economic relationships, and what particular spatial strategies they use to advance their interests, highlighting the distinct features of GVC/GPN development with Chinese characteristics.

5.1. Background and geography of China's Economic and Trade Cooperation Zone (ETCzone) programme

In 2006 during the 3rd Ministerial Conference of the Forum on China–Africa Cooperation (FOCAC), the Chinese government announced its plan to establish 50 overseas economic cooperation zones worldwide as platforms for offshoring Chinese investments (MOFA, 2006). The rollout of the zone programme would begin with the development of a number of zones in Africa to serve as a cornerstone of increasing China-Africa investment and trade cooperation. During that time, economic zones had begun to emerge as a popular instrument to facilitate development cooperation, with the number of economic zones having steadily risen from an estimated 500 zones in 1995 reaching 5,400 zones operating in 147 countries as of 2018 (UNCTAD, 2019). As the world's leading authority on economic zone development, China's proposed initiative would entail replicating one of its successful zone models abroad with the promise of promoting industrialisation and structural transformation in host economies.

One of the main motivations behind the launch of the Chinese overseas zone programme was to act as a vehicle for China's 'Going Global' programme, an initiative aimed at ratcheting up Chinese foreign investments abroad and finding new markets for Chinese goods and services after 20 years of bringing in FDI, technology and skills (Brautigam and Xiaoyang 2011b, 70). Fifteen countries would go on to receive official support for the development of cooperation zones under the Go Global program. For China's Africa zone program, the Chinese Ministry of Commerce (MOFCOM) organised two competitive tenders for developing Chinese overseas ETCzones. Out of 19 overseas ETCzone projects selected for implementation worldwide seven were to be located in Africa: two in Nigeria, and one in each of Egypt, Zambia, Mauritius and Ethiopia and Algeria (the Algeria project was later cancelled due to a dispute over investment regulation) (Xiaoyang 2020, 2).

As China's role in the world economy grew, the ETCzone programme went on to formalise economic zone-based cooperation as one of China's key development cooperation strategies in Africa and beyond. Significantly, the ETCzone program would serve to facilitate a shift in the investment motives that had driven individual Chinese overseas zone experiments implemented in the mid 1990s when China's 'Going Global' was first launched. Going Global was one of the main ways through which the Chinese government had signalled its intention to actively participate in the global economy. The strategy was technically initiated in the 1990s but was announced officially several years later in China's tenth five-year plan (2001-2006) (Fei 2017, 836). Under Going Global and even prior to its launch, Chinese companies had already begun to establish a variety of private and SOE-led industrial and trade parks in the United States, Cuba, Pakistan, Egypt, the UAE and elsewhere. Key government agencies, including China's Ministry of Commerce (MOFCOM) and the National Development and Reform commission relied on these early Chinese-invested zone experiments to slowly formulate policies to support future zone initiatives (Brautigam and Xiaoyang 2011b, 73).

Until the 1990s Chinese investments in Africa were predominantly natural resource-seeking, which was reflected in the activities of early Chinese zones on the continent. By the 2000s, as the comparative advantage of the Chinese economy began to shift to knowledge-intensive innovative manufacturing, Chinese policymakers began looking to relocate traditional labour-intensive manufacturing activities to attractive overseas destinations with lower production costs and to help offshoring enterprises to gain access to additional markets for their products (Chen 2019 52; Dannenberg et al 2013, 6). The implementation of the ETCzone programme in 2006 helped initiate the shift away from Going Global's initial resource-seeking strategy towards the sectoral diversification and market orientation of Chinese overseas investments. Accordingly, while some of the African ETCzones host resource-driven investments (oil in Nigeria, copper in Zambia) the majority of zone-based activity is in the industrial production of consumer goods (such as home appliances and textiles) and investment goods (such as machinery and construction materials), with a clear trend towards internationalising Chinese SME's evident in many African zones (Dannenberg et al 2013, 6).

At a strategic level, an increased focus on manufacturing investments versus gaining access to natural resources in overseas Chinese zones speaks to a growing need to provide a 'spatial fix' for excess Chinese capital (Harvey 2001). In its initial phase the ETCzone program's aim was to facilitate the flow of Chinese capital and goods to world markets (Summers 2016, 1636) in response to significant macro-economic challenges resulting from the problems of excess capacity and capital. Thus began a phase of 'moving out' of Chinese surplus capital following decades of attracting FDI to facilitate domestic industrialisation. During this time the structure of the Chinese economy began to shift from resource, labour and export-intensive manufacturing to knowledge-intensive production and high-value services.

Fixing Chinese capital become an even more pressing concern following the 2008 financial crisis owing not only to excess capacity and capital and rising domestic costs, but also falling demands for Chinese exports (Liu et al 2020, 5). To facilitate the relocation of its manufacturing sectors, China embarked on a new phase of industrial cooperation with African and Southeast Asian countries selected to host Chinese zones (Song et al 2018). Following global trends, these ETCzones were designed to enable shifting resources from the Chinese national economy across a globally-interconnected network of production, finance and trade nodes. African zones were thus introduced as a means for the internationalisation of Chinese capital in response to both crisis and China's growth trajectory. They would help to boost plans of economic restructuring by accelerating overseas infrastructure development, providing Chinese enterprises the opportunity to employ excess capacity and capital, and encouraging the transfer of China's industrial capacity offshore as local industry moved to higher added production. Zones also addressed the problem of falling demand for Chinese exports by opening up new markets abroad (Liu et al 2020).

Overall, authors have identified several strategic objectives of African zones: a) producing overseas, which would allow Chinese firms to export to Europe and North America and help them to avoid trade restrictions, b) creating economies of scale for overseas investments, particularly SMEs Going Global in groups, c) increasing demand for Chinese machinery and equipment, and d) assisting Chinese efforts to boost domestic restructuring by allowing firms to move up the value chain at home (Brautigam and Xiaoyang 2011b, 71). Zones also provided a means of internationalising the Chinese development model by transferring China's zone experience to the rest of the world (Xiaoyang 2020).

In host locations African governments lured by the promise of South-South cooperation as a way to counter overdependence on the global North proved eager partners in implementing ETCzone initiatives. Domestically, Chinese zones could be marketed within host African nations as a tool to promote industrialisation and trade integration, boosting national development agendas at a time when structural transformation was becoming central to African economic discourse (Alden and Alves 2018, 20; Xiaoyang 2020, 2). At the very least, Chinese overseas zones would act as a source of political legitimacy for host governments that adopted them. In turn, African governments would do their part by developing the legal and regulatory institutions and physical infrastructure that would facilitate the planned relocation of Chinese industries. While preferential policies are negotiated on a zone by zone basis, a standard package of incentives offered to ETCzone firms includes tax reduction, waivers on import tariffs for raw materials and machinery, suitable infrastructure and facilities, and other benefits (Fei 2017, 841)

5.1.1. Linking the ETCzone program to the Belt and Road Initiative (BRI)

In recent years the China-Africa economic zone cooperation program has increasingly been framed in the context of the Belt and Road Initiative (BRI), which has come to represent the overarching framework for China's international cooperation. Launched in 2013 by Chinese president Xi Jinping, the BRI has since become the primary means for rebalancing China's economy, managing the macroeconomic challenges that resulted from the 2008 crisis and enlarging Chinese markets beyond the US and European Union (Liu et al 2020). Encompassing over 100 countries along its maritime road and territorial belt, the project serves to enhance Chinese-centric global connectivity by connecting "core cities along the Belt and Road and using key economic industrial parks as cooperation platforms", with a series of interconnected development corridors planned across its two routes (National Development and Reform Commission, 2015). Both the ETCzone programme and the broader China-Africa cooperation framework preceded the BRI, and though the latter is not officially mentioned in BRI strategy document, it has contributed both experiences and lessons to BRI implementation (Fei 2017 840).

The key objectives underpinning China's BRI and motivating the investment decisions that have reinforced the project appear to be tied to the Chinese strategic concerns and domestic challenges mentioned previously, including significant macro-economic challenges resulting from the problems of excess capacity and capital and a drop in demand for Chinese exports to the EU and US following the 2008 crisis. The BRI was thus launched as a way for China to achieve strategic economic advantage by orienting emerging production hubs towards the Chinese economy in the face of what the initiative's vision document described as "the weak recovery of the global economy, and complex international and regional situations" (National Development and Reform Commission, 2015). The BRI would thus provide a spatial fix for Chinese capital, facilitating the export of excess capacity into infrastructure construction and industrial bases worldwide (Liu et al 2020).

Crucially, the launch of the BRI elevated the central role of the types of open business environments implemented under the ETCzone program in Chinese global development engagements by calling on governments to open "free trade areas so as to unleash the potential for expanded cooperation" (National Development and Reform Commission, 2015). The Initiative, as its vision document declares, will "give play to the decisive role of the market in resource allocation and the primary role of enterprises, and let the governments perform their due functions", consolidating a Chinese international development approach based on the idea that the private sector will deliver on development targets more effectively than state-led programmes.

5.1.2. The spatial strategies of ETCzones: Internationalising China's subnational regions

Key to understanding the vision animating the ETCzone programme and the BRI framework more broadly is the particular domestic context of Chinese subnational regional policy and how it developed into policy discourse around international regional cooperation. The logic for the design and planning of the BRI is closely related to China's domestic planning and reform agenda, and centres on the idea of regional economic cooperation as a way to accelerate the opening up of China's regions.

Regional cooperation is the latest stage in the evolution of China's domestic subnational regional development policy. Subnational regional development was a key strategy in China's reform and opening up program (Fei 2017; Summers 2016; Sun et al 2022). This approach originated with the implementation of subnational regional initiatives in the 1980s as a way to decentralise state power and open the country up to foreign investments. Under the leadership of Deng Xiaoping, who envisioned a laddered development path for China, the country was divided into three economic belts: the coastal (eastern/south-eastern) area prioritised for market-oriented reform, the central, and the western belts. Four economic zones were established along the southeast coast (Shenzhen, Zhuhai, Shantou and Xiamen) with the objective of attracting investments to their regions and facilitating export-oriented production. Subsequent to this initial experiment, hundreds of different zone types that could receive foreign investments were established across the country to generate regional development. These zones were aimed at forging linkages between foreign firms on one hand and local industry, research institutions and universities on the other to catalyse structural transformation (Fei 2017).

In the following years a number of new planning schemes were proposed to engender the development of China's subnational regions (Summers 2016). At the turn of the century the Chinese government launched the 'Develop the West' policy framework as a means to create inter-provincial linkages between coastal cities and lagging inland regions. Through these linkages coastal regions would engage in the transfer of their development experience, creating new economic hubs that would help to further open up the country (Fei 2017, 831). In 2010 the Chinese central authorities announced a new round of 'Develop the West' based on a strategic approach to development that would later form the foundations of the BRI. The initiative marked the beginning of the extension of China's subnational regional policy to the rest of Asia, with an emphasis on developing cross-border economic and commercial linkages (Summers 2016, 1632).

Subsequently, in the economic and social policy document of its 2011 12th five-year programme, the central government discussed an international dimension of regional policy to deepen the 'openness' of coastal, inland and border regions of China "as they restructure and move to higher value-added areas of economic activity" (Summers 2016, 1632). China's regions would play differentiated roles in forging cross-border linkages, and zones would be at the centre of subnational regional planning, serving a "bridging" function between Chinese and partnering regions overseas.

The evolution of China's policy to internationalise its regions culminated in the launch of the BRI in 2013. The broadly envisaged geography of the BRI revolves around integrating Chinese regions with the rest of the world to create "strategic propellers for hinterland development" and develop new advantages for thriving coastal regions. In section IV of the

BRI vision document titled "China's region's in pursuing opening up" it is stated that by advancing the BRI "China will fully leverage the comparative advantages of its various regions, adopt a proactive strategy of further opening-up, strengthen interaction and cooperation among the eastern, western and central regions, and comprehensively improve the openness of the Chinese economy" (National Development and Reform Commission, 2015). Zone planning is one component of this broader vision for connectivity-driven economic growth. Under the vision of the BRI, overseas manufacturing bases would serve to increase interregional connectivity and facilitate outward Chinese investment, enabling the unbundling of China's manufacturing sectors.

In the years leading up to the BRI's launch, the ETCzone program was among the schemes created in the context of centrally coordinate efforts aimed at opening up China's regions. In a way the ETCZzone programme acted as a pilot for cross-border regional cooperation, globalising China's subnational regional cooperation model as a basis of its international economic engagements. Early on ETCzones became anchors of cross-border regional partnerships that would encourage moving China's industrial capacity offshore following decades of attracting FDI to facilitate domestic industrialisation. The programme's identification of specific roles for strategic Chinese provinces echoes the BRI vision document's emphasis on leveraging the competitive advantage of regions. It can be said therefore that the BRI did not initiate but rather elevated pre-existing ideas and practices developed at the subnational level of Chinese policymaking (Summers 2016). These policy frames entailed the establishment of overseas production bases integrated into Chinese networks of production and trade. What the BRI did was to increase the political importance attached to these policies, which are considered instruments of China's rise as a global power and foundations of its expanding economic role (Summers 2016 1635)

5.2. Paradigm maintenance in the ETCzone programme: Creating enabling environments for Chinese firms in Africa

One of the main supportive arguments surrounding China's overseas ETCzones is their potential to replicate the Chinese experience by building up industries in the same value chains and promoting industrialisation in host economies (Brautigam and Xiaoyang 2014, 86). And yet various studies have shown that the policy framework for ETCzones implemented in Africa is different from the domestic Chinese model of economic and trade cooperation zones (Chen 2019, 55, 57; Dannenberg et al 2013; Pairault 2019). The following discussion argues that the overseas ETCzone variant more closely resembles a conventional economic zone model promoted by free-market institutions than China's definition of ETCzones (see chapter 3). The former is focused on creating open trading environments within national economies as a strategy for broader socio-economic upgrading. This is in contrasts to a Chinese, state-guided approach to industrial upgrading and development adopted in China's domestic ETCzone programme.

Though there is no single policy framework for their implementation, various common aspects of overseas ETCzones in Africa support the argument of paradigm maintenance in the ETCzone program. First, overseas ETCzones are Chinese operated and majority Chinese owned, following global trends in economic zone development based on partnerships between national governments and international private or government actors. The Chinese domestic ETCzone model on the other hand is government financed and operated. Second, a strategy of Chinese firm-led governance in overseas ETCzones contrasts with the guiding role of domestic institutions and government policy in driving the structural transformation agenda in domestic Chinese ETCzones. This indicates a different role for states and markets in overseas ETCzones than in domestic ETCzones Third, the objective of overseas ETCzones is to increase employment and exports, versus a focus on boosting backward linkages to drive initial industrialisation in domestic Chinese zones.

The first point concerns the ownership, operation and function of ETCzones. While domestic Chinese zones were established by the Chinese government's own initiative and on its own territory to attract foreign investments (Chen 2019, 56-57), the overseas ETCzone programme was initiated by a central Chinese government ministry (MOFCOM) and implemented by Chinese companies and SOEs in host countries. Overseas ETCzones are financed (fully or in large part) and operated by Chinese developers and managers with limited local participation in zone development and management (Pairault 2019, 6). Masterplans and development strategies are also provided by the Chinese partner, and neither developers nor MOFCOM, which oversees the zone programme, have made particular plans to connect local African economies with the zones (Brautigam and Xiaoyang 2011, 87). The relative absence of political ownership by host governments limits the policy space available to domestic actors to promote such forms of cooperation, particularly when developers and firms on one hand and local actors on the other have conflicting interests.

Contrastingly, all of China's domestic zones were developed by state-owned developers as part of a comprehensive government development strategy focused on structural transformation, and therefore benefited from local political ownership. The governing authority of Tianjin Economic-Technological Development Area (TEDA) for example established an economic and trade cooperation zone to catalyse regional development, inviting universities to establish campuses in the zone as a way of creating linkages between research institutions and domestic industry (Scott 2013). In African zones on the other hand local government officials are uninvolved in the zone's strategic planning and zone developers have their own priorities (Brautigam and Xiaoyang 2014, 88), mainly around creating designated spaces to accommodate Chinese firms in host African economy (Brautigam and Xiaoyang 2011b, 78; Pairault 2019). The latter possess strong bargaining power within the host economies and are able to push their plans forward.

A model of externally financed, developed and operated zones implemented by Chinese actors is consistent with contemporary global norms around economic zone development (as outlined in chapter 3). When export-oriented economic zones first gained popularity in the latter half of the last century, they emerged as state-led projects benefiting from strong domestic leadership, central government allocation of investments and regulatory and legal frameworks that aimed to lay the foundation for sustained industrial upgrading, deepening and development. The manufacturing zones that were set up in China in the 1980s (and earlier in the 1960s in the Republic of Korea and Taiwan, as well as many countries in the developing world during that period) followed this model (Chen 2019, 51, 54, 62). Over the past two decades, a period that has witnessed shifts in global manufacturing towards networked production and an increase of trade in intermediate goods, the discourse around zones has shifted considerably both in terms of their function and delivery.

In contrast to earlier variants, contemporary zones are designed to facilitate connecting to global production chains as a strategy for development. Contemporary zones respond to the needs of mobile capital rather than channelling investments into target sectors. As a way to ensure the provision of adequate facilities, the current consensus in international development is on public-private partnerships for creating globally linked territories that can be inserted into cross-border networks of production and trade (Schindler and Kanai 45-46). In accordance with this model, and though there are varying arrangements for on and off-site infrastructure delivery, Chinese companies finance, implement and operate ETCzones either alone or in partnership with domestic governments based on master plans provided by the Chinese developer. The performance of zones is therefore subject to strong Chinese influence and uneven power relations (Chen 2019, 55). This has enabled the development of ETCzones as functionally autonomous, enclaved spaces in host economies with tailored facilities, incentives and business support services for Chinese investors, as discussed in further detail below.

A second (and related) aspect of overseas ETCzone that resembles conventional, rather than domestic Chinese zone models pertains to the role of state institutions. In both domestic and overseas Chinese zones there is an emphasis on creating an enabling business environment for investors through the provision of legal, fiscal and other benefits. However, the focus of domestic Chinese zones in their early years went beyond removing impediments to international trade and enabling the operation of foreign firms. Domestic Chinese economic zones featured a strong role for domestic institutions and government policy in driving the structural transformation agenda, receiving institutional and monetary support from the Chinese central, provincial and municipal governments (Chen 2019, 56). Chinese zones followed an upgrading trajectory that a) is enacted at the firm level, where firms foster linkages to gradually improve capabilities in one chain before moving to the next and b) is significantly enhanced by government support at the firm and cluster levels (Kaplinsky and Morris 2016, 637).

Overseas ETCzones, on the other hand, emphasise dependency on FDI to provide opportunities for national development, rather than firm or cluster-level interventions directed by the government (See chapter 3). The policy environment is designed to accommodate Chinese companies, and enhance trade liberalisation and investment facilitation, seeming to replicate the Chinese strategy of creating experimental sites for market-based reform as a way of gradually opening up of the economy. But the overseas ETCzone programme advances a form of development that is more sympathetic to role of free enterprise, foreign investment, and market forces than China's developmental vision. None of the African ETCzones have had any significant government involvement in enabling skills and technology transfers and promoting capabilities, a condition of successful industrialisation and structural transformation (Kaplinsky and Morris 2016).

Though not explicitly stated, the assumption that underpins the ETCzone model is that Chinese FDI will stimulate demand in the domestic economy leading to the emergence of basic industries, improving the capabilities of local firms and allowing them to upgrade. The role of host governments is restricted to enacting FDI supporting policies (Brautigam and Xiaoyang 2014, 87). This includes removing regulatory barriers and reducing transaction costs to Chinese firms, including through state provision of major off-site infrastructure and material assets such as privatised ports, and some on-site facilities and infrastructure including utilities, connections and roads, as well as energy provision. These dynamics resemble conventional GVC-oriented development strategies, which emphasise creating enabling environments for lead firms , rather than a Chinese-inspired state-directed approach of increasing value-capture by local firms.

In keeping with global norms, a firm-coordinated approach in overseas Chinese ETCzones appears to determine a 'third way' for the state between market-coordination and marketliberalism. In this approach the state is neither director of markets nor is its role restricted to ensuring the free operation of capital, but rather to act as agent and facilitator of markets (Alami 2022). Pairault (2019) argues that Chinese zones by design aim to implement market-reforms without considering the needs of host countries to advance selective Chinese objectives (Pairault 2019, 6). Others argue that it is the responsibility of domestic governments to invest the rent they extract to initiate programmes designed to incentivise and promote GVC integration in same way that China did (Cheru and Oqubay. 2019)[3]. Either way, the ETCZone roadmap and the provisions it stipulates does not accommodate the types of proactive policies inherent in the Chinese model of zone-based development (Pairault 2019).

A third aspect of paradigm maintenance in ETCzones is that, in keeping with an approach that relies on firm dynamics to provide opportunities for national development, overseas ETCzones prioritise increasing employment opportunities and exports versus a strategy of industrial deepening adopted in domestic Chinese ETCzones. Much like the overseas variant, early-stages domestic Chinese zones were marked by labour-intensive manufacturing, and were expected to play a similar role of achieving the larger economic goals of expanding foreign trade and increasing employment as well as generating rents and contributing to overall growth (Chen 2019, 56) However, early Chinese zones were underpinned by a staged vision for development based on shifting comparative advantage, with regional economies transitioning from labour-intensive export-oriented manufacturing to knowledge-intensive innovative manufacturing (Chen 2019, 52). An approach that prioritised cultivating both strategically beneficial global connections as well as backward linkages in the domestic economy allowed Chinese firms to increase value-added in the manufacturing sector, enhancing capabilities and achieving extraordinary structural impacts.

The emergence of linkages in Chinese domestic zones stands in contrast to the enclave structure that is seen in many of Africa's ETCzones. African ETCzones serve to create an enabling environment for Chinese enterprises looking to relocate their production and marketing operations abroad. To encourage firms to invest in zones special policies and flexible regulations, referred to as preferential policies, are enacted. In each of the six ETCzones on the continent preferential policies were negotiated at a higher level of government (Brautigam and Xiaoyang 2014). Often using economic zone variants in China as an example, Chinese officials argued that preferential policies are essential for attracting Chinese capital and technology, urging local officials to expand policies to facilitate and increase inward-bound Chinese FDI and technology (Brautigam and Xiaoyang 2014, 87). This included creating a regulatory regime that would remove impediments to Chinese imports, promote exports, introduce flexible regulation such as freedom from labour regulation and tax holidays for exported products, create efficient administrative facilities and ensure the provision of physical infrastructure designed to meet the needs of industrial investors.

Meanwhile none of the African zones have witnessed any significant efforts to connect African firms with zone-based Chinese firms. With regards to skills transfer, only one zone, the Eastern

[3] Kaplinsky and Morris (638) draw on Hirschman's explanation of the three types of linkages that drive structural transformation in the resource sector, and which author's argue host economies should model for successful industrialisation. The first are fiscal linkages, where revenues accrued by the state are reinvested in the manufacturing sector to promote diversification. The second are consumption linkages, where incomes generated in the industrial sector spurs demand in other sectors. The third type of linkages are production linkages, both backward supply driven and forward processing sector driven.

zone in Ethiopia, is linked to a training institute focused on skills development (Brautigam and Xiaoyang 2014, 86-87)[4]. As a result none of the ETCzones have displayed clustering potential, and when backward linkages have occurred, they were limited and formed by Chinese entrepreneurs themselves rather than facilitated by relevant institutions (Brautigam and Xiaoyang 2014, 86).

A key factor enabling the enclavisation of ETCzones is that, at least in practice, they are not open to investors from different countries. Instead, ETCzones are more likely to be developed either as enclosed spaces that host Chinese investors (Fei 2017, 841) or as spaces that aim for a majority of Chinese investments [70-80 percent according to MOFCOM, though no explicit limit is stated (Brautigam and Xiaoyang 2011b, 89)]. The hope is to provide a secure environment and standardised management for Chinese enterprises in a space designed around the needs of Chinese investors, and in doing so facilitate a Chinese centrally coordinated strategy of 'Going Global in groups' (Brautigam and Xiaoyang 2014; Fei 2017, 841). To encourage Chinese occupancy in the ETCzones developers market the zones to Chinese but not local firms (Brautigam and Xiaoyang 2011b, 88), and will prioritise bringing in Chinese firms and subcontractors with the expectation that the entire value chain will cluster together in a planned zone to increase competitiveness (Brautigam and Xiaoyang 2011b, 91; Pairault 2019, 5). In locations where zones are open to local firms zone developers are prone to act as landlords looking to rent out space (Brautigam and Xiaoyang 2014, 85), and therefore have no incentive to promote linkages with local companies. Other times, the developers place conditions that make it difficult for local firms to qualify for entry.

Interviews in Egypt's Suez ETCzone for example revealed that the tax rates that would be imposed on local firms producing for the domestic market are prohibitive. More broadly, investment promotion measures in the zone exclusively target Chinese firms. As a result, with the exception of three joint ventures between Chinese and Egyptian State Owned Enterprises (SOEs), all of the firms located in the zone are Chinese invested (Samy, Suez, 2018; Suleiman, Suez, 2018; Emad, Suez, 2018). Similarly, authors have noted that In Zambia's Chambishi Multi-facility Economic Zone (MFEZ) developers announced that the zone would be open to local firms but the minimum investment size of $500,000 disqualified local firms from applying. As of 2014 there were no local manufacturers or suppliers in the Ethiopian, Mauritian, and Nigeria- Ogun zones (Brautigam and Xiaoyang 2014, 86)

In brief, the logic underpinning the ETCzones programme is rooted in the orthodox economic thinking that is at the centre of GVC development, and which is grounded in traditional firm theory. Implicit in the design of ETCzones is the assumption that firm coordination is sufficient as a mechanism for developing supplier linkages, and that the economic benefits of firm activity will trickle down to communities once the enabling conditions are provided for transnational firm activity. ETCzones nonetheless employ a demand-driven industrial policy which makes governments responsible for enhancing lead-firm governance.

As a result Chinese firms have no incentive to play an active role in fomenting linkages with local suppliers. Further, a large percentage of foreign-invested Chinese firms are SMEs that are themselves looking for end markets (either local, or benefiting from quota-free access to EU and US markets), which creates further obstacles for generating dynamic effects and

[4] Brautigam and Xiaoyang (2014) note in their study that Egypt's SETCzone, operated by TEDA, also had an association with a Chinese funded training institute. The information obtained during fieldwork for this project contradicts this claim, however, as no such links were existed.

catalysing structural transformation. The end-result is that ETCzones develop as exclusionary node for value creation in China's increasingly unbundled value chains (Liu et al 2020, 8). This means that although they may replicate the basic function of Chinese zones, with their dominant manufacturing focus and emphasis on labour-intensive manufacturing, they do not have the capacity to stimulate initial industrialisation, and therefore deviate from the evolutionary Chinese path of using Special Economic Zones to 'climb up the development ladder' into high tech manufacturing.

Finally, the early design and planning framework of the ETCzone programme may have sought to remove impediments to trade and provide enabling environments to Chinese firms, but without explicitly adopting a liberal-market orientation (based on the notion that the private sector will deliver on development targets more effectively than state-led programmes). The BRI framework, within which the ETCzone program has been incorporated, takes a stronger position in support of reforms that prioritise global free trade over state-centred solution for integration into Chinese networks of logistics, trade and production. The launch of the BRI established the central role of open business environments in related countries by calling on governments to open "free trade areas so as to unleash the potential for expanded cooperation". More broadly, the BRI vision document states that the initiative "is designed to uphold the global free trade regime and the open world economy in the spirit of open regional cooperation". It further states: "The Initiative follows market operation. It will abide by market rules and international norms, give play to the decisive role of the market in resource allocation and the primary role of enterprises, and let the governments perform their due functions" (National Development and Reform Commission, 2015).

The position outlined in the BRI vision document provides further evidence that Chinese overseas economic zones maintain a traditional GVC development approach focused on creating a market-enabling environment for market-seeking Chinese OFDI, promoting the exclusive access of Chinese firms while reproducing the hierarchies, exclusions and differentiations of global free market based development.

5.3. GVC development with Chinese characteristics: The spatial strategies and politics of the ETCZone programme

At a fundamental level, China's ETCzone program advances an approach to economic zone development that entails creating functionally autonomous, globally linked nodes within the host territory to facilitate the free flow of goods and capital. This approach to overseas development cooperation serve to maintain, rather than challenge, the contemporary liberal international order. Paradigm maintenance in Chinese zone-based policymaking suggests the dominance of global institutional ideas and policies in China's overseas development programmes. On the other hand, however, the ETCzone programme also demonstrates unique features that shed light on China's distinctive approach to domestic and international development: forging transnational pathways for subnational regional development.

When they were launched, ETCzones were designed with the aim of facilitating the "strategic coupling" of Chinese and African subnational regions, and integrating host locations into global value chains anchored by lead firms in China. The ETCzone program was driven by the particular logic that regions are the engine of growth, and animated by a vision for economic globalisation based on the idea of leveraging the comparative advantage of Chinese regions and developing inter-regional linkages on a global scale (see section 5.1.2.). A vision to internationalise China's regions builds on the country's decades-long development trajectory, in which market reform is combined with gradual decentralisation of state power and subsequent diversification of local development experiences within a coherent national development project (Fei 2017, 830). The Chinese overseas ETCzone model thus represents a "localized manifestation of the consensus among global policy makers that enhanced connectivity facilitates integration with global value chains and leads to export-oriented growth" (Liu et al 2020, 5).

A Chinese approach to international development that engenders the spatial-economic relations of GVC-oriented development, while employing a distinctive approach based on increasing interregional connectivity, is referred to here as 'GVC development with Chinese characteristics'. To enact this approach, a range of agencies, agendas and stakeholders whose motives vary are mobilised around an overarching policy framework representing the political-economic objectives of central state actors looking to assert China's position in the international system. ETCzones serve the economic and commercial purposes of national actors looking to rebalance China's economy outwards in response to overaccumulation and crisis. But alongside this objectives, ETCzones further fulfil the market-oriented goal of profit-maximisation by Chinese firms responding to economic incentives (Liu et al 2020) and advance the regional growth strategies of local regional and municipal Chinese governments. The variety of interests represented points to a need to move beyond macro-level discussions on Chinese initiatives and to examine specific actors and factors involved in the implementation of China's ETCzone programme.

5.3.1. The role of subnational regional agency in the internationalisation of China's ETCzone programme

The following discussion sheds light on the diverse stakeholders involved in implementing the ETCzone programme, while also helping to understand the mechanisms of coordination among actors pursuing various interests. It will give analytical priority to subnational regional players, discussing the complex politics of enrolling subnational regional actors by the central government in the enactment of GVC development with Chinese characteristics. Highlighting the pivotal role of subnational regional actors in China's internationalisation deprioritises narrowly defined conceptions of state-based 'national interest'. Mainly, a focus on the multiplicity of actors involved in these initiatives emphasises a differentiation between strategic Chinese objectives situated at a national level, economic incentives situated at the firm level (Liu et al 2020) and the priorities of sub-national regional Chinese actors situated at the local level. The ETCzone programme thus mediates and translates the interests of a variety of stakeholders at the domestic Chinese level.

It is important to note that the actual construction of ETCzone initiatives aligns an even more diverse set of actors and institutions around the goal of establishing the zones, including subcontracted developers, municipal governments, ministries, national banks, technicians, administrators and managers, not to mention a range of actors within host economies, an added layer of complexity that will be explored further in the coming chapters. Though not prioritised analytically in this discussion, the full range of varied yet centrally coordinated actors and institutions involved in the development of the ETCzone program are each constitutive of this order, revealing the relational way in which China's economic globalisation is enacted.

The ETCzone model of engagement demonstrates unique features that shed light on China's approach to domestic and international development. A key feature of this model is the central role played by subnational agency in implementing economic zone initiatives. In the majority of Africa's cooperation zones China's central government adopted the approach of delegating overseas zone initiatives to economic zone developers/operators functioning at the local (municipal) or provincial levels (Brautigam and Xiaoyang 2011b, 81). Regional developers were tasked by the central Chinese government with establishing production and trade zones as a means of facilitating the relocation of domestic Chinese firms overseas. The developers operated under the authority of subnational governments, who are often the main shareholders in the overseas zone programs though not always, and who acted as technical partners offering their experience and expertise in economic zone development. Ethiopia's Eastern Industrial Park, for example, though fully owned and run by Jiangsu Qiyuan Group, a private Chinese enterprise active in steel pipe and aluminium production, is modelled on the Zhangjiagang Free Trade Zone; Nigeria's Ogun-Guangdong Free Trade Zone is modelled on Nanjing Jiangning Development Zone; and Egypt's SETCzone is modelled on the Tianjin Economic-Technological Development Area. Similarly the sole developer of the Mauritius Jinfei Economic and Trade Cooperation Zone is Shanxi province Tianli Group, a provincial State Owned Enterprise (SOE) active in trade, construction, real estate, and textiles (Brautigam and Xiaoyang 2011b, 77).

In each of these cases Chinese developers, whether subsidiaries of municipal governments or provincial SOEs, had formulated their own ETCzone proposals, determining choice of location and funding sources to finance the development of the zones (though their projects are supported by a number of public and private bodies). The major criteria set by the central government related to the proposed zone location (including the market potential, investment environment, and host government support), as well as the financing capacity of the developer and a proven track record in implementing a major construction engineering project to ensure the completion and sustainability of the projects (Brautigam and Xiaoyang 2011b, 81). In determining sectoral specialisation, companies winning bids to develop ETCzones will have assessed the market potential, local industrial base and geographical advantages of the host countries where their proposed zones would be located, and ensured compatibility with their home region's production structure and priorities of manufacturing investors. The Zambia-China Chambishi Multi-facility Economic Zone/ Economic and Trade Cooperation Zone, for example, was established by China Nonferrous Mining Co. (CNMC) and focuses on raw material extraction and processing in the value chain of copper and cobalt. The Egyptian ETCzone on the other hand follows a cluster model with four main clusters of Chinese firms in light and heavy manufacturing: textile and garments, petroleum equipment, fiberglass, and electrical equipment (discussed in detail in chapter 8).

In terms of design, most Chinese zones employ the multiuse port-park-city model that has become characteristic of urban and industrial regeneration projects worldwide (Liu et al 2020). These are spatially delimited areas for manufacturing, trade and logistics services combining critical infrastructure with multiuse facilities such as residential condominiums, hotels and amusement parks. In the context of the ETCzone program their function is to facilitate the strategic coupling of Chinese regions and host economies, a model of engagement underpinned by a vision to internationalise China's regions as one strategy of rebalancing China's economy outwards.

5.3.2. Aligning actors in translation of the ETCzone model

The devolution of decision-making to subnational actors in China's domestic and overseas development planning by no means entailed the retreat of the central state. In the context of China's growth trajectory and it rise as a development actor, the role of the central state in economic development has gradually been rearticulated (Fei 2017, 835). The ETCzone programme illustrates this refiguration. The ETCzone program was designed at the national level to enable the export of surplus capacity abroad, and benefited early on from financial and political resources delivered by the central government. But although it was initiated in response to the political-economic imperatives shaping the trajectory of the Chinese economy, the program's success nonetheless relied on the capacity of state-led planning to enrol a range of agencies in the implementation of these plans. Conversely rather than a diffuse set of strategies, the imperatives of various actors involved in the ETCzone program, with an emphasis on the subnational and firm levels, demonstrate strong links to the national level of policymaking, with specific roles played by various provinces and regions towards achieving strategic political-economic objectives defined by the central government (Summers 2016).

The coordination mechanisms of central state actors in the ETCzone program are consistent with the dynamics of constructing the BRI, which incorporates multiple objectives translated within a centralised framework rooted in national objectives, and requires an alignment between local and central government strategies (Summers 2019). As noted by Summers (2016), in its "overarching policy framework the belt and road will take on a range of meanings as Chinese actors seek to use it (sometimes competitively) to further various institutional and policy goals, from the economic and commercial to the geopolitical" (Summers 2016, 1629).

The concept of policy translation captures the complex dynamics, interactions and coordination mechanisms involved in aligning a diverse range of actors around the ETCzone program. Policy translation occurs when multiple actors with diverse imperatives begin acting as a single agent, enabling action (Callon 1984). For a translation to be successful policy planners must recruit participants, extending and stabilising the policy assemblage (Muller 2015, 70), and actors must converge around a particular set of objectives (Savage 2020, 322). At the stage of implementation, a more diverse range of actors are incorporated into the ETCzone policy assemblage. Based on the nature of the actors enrolled within the site of engagement the policy translation can produce different results. While the complexities of translating the ETCzone model within the situated context of their host regions will be dealt with in the coming chapters, the focus of the present discussion is on the various ways in which central state actors make the primary assemblage of Chinese actors cohere.

Figure 5.1. outlines mechanisms of Chinese support for overseas ETCzones and the central and subnational state agencies that provide them. An important channel for state support is through central ministries, which provide indispensable financial, networking, diplomatic and information support for overseas zone developers. These resources help to align a range of actors around the ETCzone program, helping the ETCzone policy assemblage cohere around the programs key objectives. Another way the state practices its 'steering' role is through relevant institutions that have enabled China's market reform and global market integration, such as policy banks, venture capital funds and Asset Management Companies tasked with managing state financial risks and ensuring the economic health of China's Banks and SOEs (Marois 2021, 122; Ho and Marois 2019). Alongside government subsidies zone operators rely on central financial institutions to partially finance their operations. In 2006 a government policy bank, China Development Bank, established the China-Africa Development Fund

(CADFund) specifically for the purpose of supporting Africa's ETCzone developers and operator. CADFund is a venture capital instrument with the role of investing in Chinese companies, Chinese-African joint ventures and African companies (it later obtained equity shares in some zone projects). Established with $1 billion in assets (later increased to up to $5 billion), CADFund is one of the key tools of China's Going Global strategy and as an investor played a significant role in supporting developers set up economic cooperation zones in Africa (Brautigam and Xiaoyang 2011b 71).

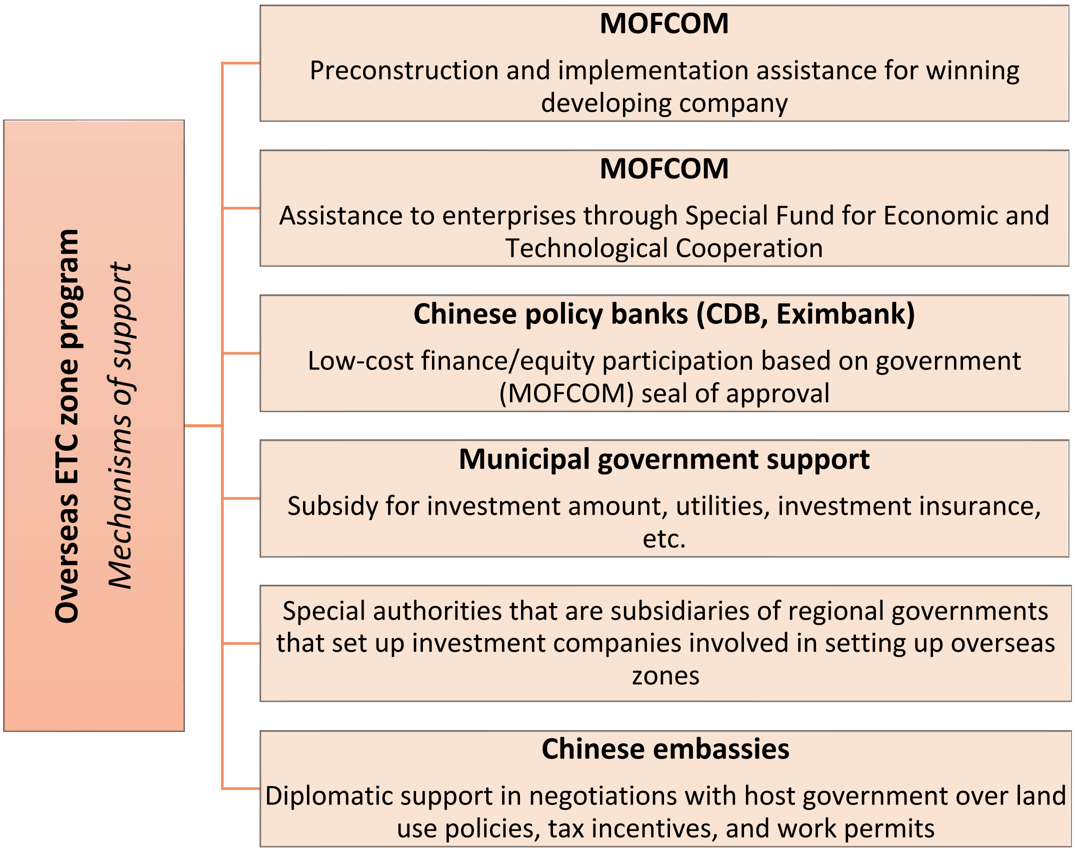

Figure 5.1. Mechanisms of support for overseas ETCzones (Source: Brautigam and Xiaoyang 2011b)

To conclude, the analysis shows that as discourses generated by free-market institutions have gained political influence across countries of the global South, such discourses are no longer the preserve of actors in the global north, particularly as emerging economy governments become more actively involved in global governance. The strategies that underpin the ETCzone model converge with the free-market terms for managing development partnerships imposed by leading international agencies and development institutions in the context of a GVC/GPN development paradigm. As a market entry strategy, ETCzones provide an enabling institutional environment for Chinese firms looking to relocate manufacturing to low-cost locations, prioritising firm-coordinated strategies over state-centred solutions as an approach to regional development. ETCzones maintain global patterns in production organisation that have seen firms expand globally, and that determine the FDI-receiving nation's position in the international division of labour (Mohan 2009) contributing to uneven development within and across strategically coupled economies (as detailed in chapter 8).

Yet given the mobility of knowledge, and the complex arrangements in and through which knowledge is materialised, the reality of GVC/GPN development on the ground depends on the particular contexts, agencies and objectives through which policies is mobilised. The ETCzone programme mediates and translates the interests of a variety of stakeholders involved in the project at the domestic Chinese level, including but not limited to strategic Chinese objectives situated at a national level, the market-seeking interests of private Chinese capital driven by traditional FDI motives, and the priorities of subnational government actors seeking to leverage the competitive advantage of Chinese regions. In planning the ETCzone program central state agencies used financial and political resources to align multiple actors around strategic objectives situated at the national level, driven by political-economic concerns of rebalancing China's economy outwards and solving its crisis of overaccumulation by enabling the export of surplus capital. Centrally coordinated action thus helped to consolidate and stabilise an arrangement of actors in and through which a GVC-oriented economic zone model is mobilised.

Within this centrally-coordinated agenda, ETCzones have come to serve as anchors of cross-border regional partnerships aimed at encouraging the movement of China's industrial capacity offshore following decades of attracting FDI to facilitate domestic industrialisation. This vision forms the foundation, and reinforces the strategy of the BRI, which has come to represent the overarching framework for China's international cooperation and the primary means for rebalancing China's economy outward. The broadly envisaged geography of the BRI revolves around integrating Chinese regions with the rest of the world. A Chinese approach to international development that engenders the spatial-economic relations of GVC-oriented development, while employing a distinctive approach based on increasing interregional connectivity, is referred to here as GVC development with Chinese characteristics.

Examining the range of varied yet centrally coordinated actors and institutions involved in the development of the ETCzone program therefore reveals the relational way in which China's economic globalisation is enacted. And yet, as the next chapter will demonstrate, to understand how Chinese development initiatives spatialise, it is important to consider the situated relations and specific interactions within sites of Chinese engagement that make the contemporary drive to economic integration even more complex.

6. The complex geographies of GVC/GPN development: Land commercialization as a strategy for global economic integration in Egypt

The previous chapter situated China's Economic and Trade Cooperation Zone (ETCzone) program within the context of the country's growth and transformation trajectory, while also shedding light on the particular agencies, institutions and spatial strategies involved in implementing the ETCzone program. Chapter 5 argued that ETCzone initiatives are subject to the conditioning effect of the prevailing norms and policies of global development, while displaying a unique model of engagement that sheds light on China's approach to international development. The discussion highlighted cross-border regional cooperation as one way in which China is redefining globalisation with its own characteristics. The current chapter shifts attention to the complexities of translating the Chinese ETCzone model within specific locations and with the active involvement of situated stakeholders.

This chapter provides an overview of the domestic political-economic context of spatial policymaking in the Suez region in Egypt, before examining in chapter 7 the mechanisms of assembling the Egyptian-Chinese ETCzone in Suez. The current chapter sheds light on the networks and hierarchies in Egypt's political economy that have underpinned and enable the relations of the market since the Suez ETCzone's launch. The main argument presented is that the Egyptian Armed Forces' growing influence on economic policymaking has massively intensified land commercialisation as a key driver of development and infrastructure construction in Egypt. The militarisation of development and commercialisation of land is underpinned by a domestic context of weak investment, low productivity and marginal levels of market integration (Adly 2020, 13). At the centre of the analysis in this chapter therefore are the existing social and political arrangements governing access to inputs and markets on the ground in the Egypt's militarised political-economic landscape (Adly 2020, 42).

The chapter is divided into three sections. The first section provides an overall background of Egypt's political economy as a whole, identifying significant events and policies that have shaped the country's trajectory. The second section identifies the embedded agents, norms, institutions and modes of practice that produce and reproduce the relations of the market in Egypt. Attention is focused on the particular agencies involved in planning and developing Egypt's first and only Special Economic Zone (SEZ) in Suez in 2002. The discussion traces the consolidation of new networks and hierarchies in Egypt's political economy concomitant with the consolidation of a GVC-oriented spatial planning agenda in the period since Egypt launched the SEZ. This section recognises the central role that global spatial models play in domestic policymaking while shedding light on the particular actors and arrangements that emerge to enable new forms of market relations. The third section foregrounds the growing influence of the EAF on economic policymaking in Egypt under a GVC/GPN spatial development agenda in the post-2013 period. This section shows that framing concrete markets for the circulation of Chinese goods requires the strategic alignment of diverse stakeholders, each with distinct agendas, around the objective of implementing the ETCzone project in Suez.

6.1. The political economy of development in Egypt: A background

This section reviews the overall context of Egypt's political economy, identifying significant events and policies that have shaped the country's trajectory. The analysis shows how the neoliberal orientation of economic policymaking led by international institutions like the world bank facilitated the concentration of public resources into fewer hands, encouraging rent-seeking and the pursuit of narrow interests in various parts of the state bureaucracy and the Egyptian economy as a whole. The analysis then traces the introduction by international institutions of a new investment-led growth model based on enhanced partnership between the government and the private sector in the years leading up to the Egyptian revolution of 2011. The discussion sets the stage for an analysis of the drivers and implications of centralised spatial policymaking for global market integration in the Suez Economic Zone in section 6.2. The following analysis also contextualises the emergence of the Egyptian Armed Forces as the locus of political power and backbone of the country's new economic agenda following the Egyptian revolution.

6.1.1. The roots of state-led capitalism in Egypt

Discussing the history of capitalism in modern Egypt, Jakes and Shokr (2021) argue that making sense of distinctive experiences of market transformation necessitates understanding the particular and changing configurations of political-economic power through which such transformations take place (Jakes and Shokr 2021). The perspective provided by the authors on the political economy of development in Egypt is consistent with the interpretive framework adopted in this thesis in that it allows us to look beyond the parsimonious view of the world offered by conceptual models that claim universal applicability. Such an approach stands in contrast to totalising narratives of global capitalism, bringing into question the analytical utility of the latter term in its generalising capacity, and capturing distinct patterns of power and accumulation occurring within and across the often presumed "monolithic spatialities" of globalisation. The relational view of marketisation this approach implies also challenges methodologically nationalist analysis that plays into reductionist and anachronistic politics of scale.

Accordingly, it is important to preface the discussion on the contemporary political-economic dynamics in Egypt's development landscape by tracing "the shifting configurations of power, violence, accumulation and dependence that have existed on multiple scales, and that have repeatedly transformed the realities of social and economic life in modern Egypt" (Jakes and Shokr 2021). This includes an examination of the period preceding Egypt's embrace of free-market policies in the 1970s, which witnessed the spread of ideas oriented towards nationally-scaled growth, modernisation and economic development.

Following the 1952 coup that overthrew the Egyptian monarchy and ended active British involvement in Egyptian politics, the regime of President Gamal Abdel Nasser, second president of the new Egyptian Republic, launched an economic development program based on ideas of correcting structural inequalities in the Egyptian economy through import substitution industrialisation and agricultural modernisation. Nasser's vision for economic development reflected patterns of national planning that were dominant at the end of the Second World War and implemented by newly independent nations across the global South. Under Nasser's leadership the Egyptian state proceeded with its program of industrial development and social welfare, primarily through land reform and the nationalisation of private businesses.

The development framework and planning rational that characterised this stage of Egypt's development were strongly associated with the ideas of modernisation, and directly influenced by the scholarly works of economists such as Gunnar Myrdal, whose work focused on creating key growth points in the national economy, and Albert Hirschmann, who emphasised the stimulating effect of growth-induced industries on backward regions (Wahdan 2007, 2101). Under the rubric of a socialist state strategy based on the nationalisation and communalisation of productive wealth, Nasser's modernisation project was nonetheless distinctly capitalist, relying on universal economic development theories, models and practices to encourage private agricultural capital to industrialise (Beinin 1989, 72; Wahdan 2007, 2105).

The new economic project that was launched by Nasser has been referred to as "guided capitalism", and was characterised by a clear shift in the balance between private and public capital. with the state coming to assume responsibility for the majority of capital formation by 1960 (Beinin 1989, 79). This shift did not automatically imply a dramatic change in the exploitative relations between capital and labour, however. Moreover, material contributions by Western institutions supported the country's transition to state-led capitalism, a further indication of Egypt's accelerating, rather than decreasing integration into the global market system. In the period between 1957 and 1969 Egypt received LE 782.5 million from Western states and LE 55.7 million from the World Bank and the IMF in loans and credit facilities to support state investment in the national and regional economies, compared to just LE 482.9 million from communist states (Wahdan 2007, 2100).

Through the process of state-building initiated by Nasser, a new state-produced class constituted of a rural and burgeoning working population of the poorest peasants and urban wage and informal labour force emerged in Egypt. In tandem, economic development policies implemented during this time inadvertently strengthened a pre-existing commercial and industrial bourgeoisie that disproportionately captured the benefits of capital accumulation under the government's economic reforms (Jakes and Shokr 2021, 136-137). These oppositional tendencies did not arise under Nasser's rule, but rather represented a continuity of class conflict that pitted the social demands of the nationalist movement, of which Egypt's workers movement was a key component, against the interests of a capitalist class of large landowners (and later industrialists) who had been the political and economic foundation of the old monarchy (Beinin 1989, 72). More broadly the roots of class differentiation in Egypt can be traced back to the integration of Egypt into the world capitalist system through the cultivation of cotton and its export to Europe in the 19th century (Beinin and Lockman 1988, 9).

Crucially, in a bid to encourage private investment in industry, Nasser's political and economic program reinforced state-authoritarian tendencies in order to restrict working class collective action, despite special attention by the state to cultivating good relationships with the labour movement (Beinin 1989, 74). In doing so, Nasser's economic program cemented the presence and power of the state bourgeoisie, concentrating power in the hands of officials across ministries, general authorities and public sector organisations and companies (Jakes and Shokr 2021, 13). As discussed in detail in section 6.3, members of the military class in particular were appointed to high-ranking positions in state-owned enterprises and public bodies, and the military arm of the state bureaucracy was identified as the key protagonist of economic modernisation and industrialisation during this period. With the resources of the state steered towards the militarily, granting the latter vast financial and industrial privileges, the Egyptian Armed Forces was able to cement its position as the most politically influential institution in the Egyptian state bureaucracy from the 1950s onwards (Marshall 2015).

6.1.2. The Egyptian path to economic liberalisation

With the shift in the international economic environment away from developmentalism in the 1970s, the Egyptian government under Nasser's successor, Anwar Sadat, embarked on a lengthy process of economic restructuring and liberalisation which continues on to the present day. President Sadat's Open Door -*Infitah*- policy, which was enacted in 1973, saw the implementation of a series of investor-friendly reforms aimed at transitioning the country from a command economy to free-market capitalism, from import substitution to a strategy based on exports. Under Sadat's plan, economic policy changes were meant to attract foreign capital inflows from oil-rich Arab countries that had built up their dollar reserves in the wake of the 1970s oil shock, and obtain badly-needed support from International Financial Institutions (IFIs) through soft loans, grants and trade in order to fix Egypt's economic and fiscal crisis (Adly 2020, 99).

20 years after Sadat's Infitah, and following recurrent balance of payment and budget deficits, Egypt entered a new phase of liberal economic reform. In 1991 during the presidency of Hosni Mubarak, the Egyptian government signed a Stand-by Agreement with the IMF (to achieve macroeconomic stability and control inflation) and a Structural Adjustment Loan agreement with the World Bank (to stimulate savings and investment and to improve its foreign trading position) (Bromley and Bush 2007, 203). Major reforms were implemented in the financial and trade sectors of the economy in order to incentivise private investments, increase the flow of foreign exchange and free the market from government restrictions (Bromley and Bush 2007, 204). Prices in industry and agriculture were liberalised, as were the foreign exchange markets; subsidies cut; and the exchange rate unified in accordance with the orthodox package of liberal market institutions.

The assumption that underpinned the push by IFI's to liberalise investment and trade in Egypt was that once the macro-economic environment was stabilised, prices were free and institutional barriers were removed, private-sector agents would discover the comparative advantage of the market. Market actors would respond by steering the economy in the direction of profitable sectors, becoming more efficient in the face of competition in order to maintain and gain market shares (Roccu 2013, 43). Free-market advocates took for granted that privatization and liberalization would lead to higher private investment and thus reduce unemployment and poverty (Nagarajan 2013, 31). Limiting the discussion of a restructured role of the Egyptian state to that of basic welfare and civilian infrastructure, IFI policies did not identify sectors with promising prospects in the Egyptian economy, discouraged selective protection of parts of the economy and curtailed an active industrial role for the state (Bromley and Bush 2007, 206).

The lack of state involvement in stimulating economic activity and boosting production, coupled with an increased reliance on private capital flows would eventually lead to a period of low growth following the global financial crisis amid a global credit crunch and the effective freezing of global investments (Roccu 2013, 103). Moreover, the round of privatisation that took place under Law 203 of 1991, alongside trade and price liberalisation and the removal of energy subsidies, had a major impact on output in the existing manufacturing sector, leading to de-industrialisation (Roccu 2013, 48).

Contrary to IMF expectations therefore, Egypt's growth performance in the 1990s was not export-led, but was due to domestic demand growth, mostly in the construction sector, and windfall profits (high oil prices and high revenues from tourism and the Suez Canal) (Loewe 2013, 1). Ultimately World Bank and IMF-sponsored free-market reforms served to stimulate an increase in imports without a corresponding level of production and exports. Without boosting the productivity of the economy and increasing supply, both conditions for long-term prosperity, liberal market measures failed to cut unemployment, increase standards of living and promote sustained and balanced development (Bush 1999, 62). On the contrary, as social protections were lowered, free market policies led to increased inequality and poverty in Egypt in what has been described as a clear case of market-making by dispossession (Elyachar 2005).

The weakening of the regime's capacity to manage economic crises is a key factor that led Egyptian middle and lower classes, impoverished by the liberal economic reforms that concentrated wealth in the hands of the regime and its supporters, to eventually take to the streets in protest of the Mubarak regime in 2011.

6.1.3. State-business entanglements and the shifting politics of economic reform in post-revolution Egypt

As noted by Hanieh, in the midst of a generalised increase in privatisation under IFI-led policy reform in the Middle East from the 1990's through the 2000's, Egypt stood out in terms of the largest number of firms privatised, and the highest total value of privatisation out of any country in the region (Hanieh 2013, 50). A key feature of Egypt's evolving privatised economic order was the creation of parallel business subsystems, with a chasm forming between a broad base of popular microenterprises and small-scale establishments with limited access to productive assets on the one hand, and a group of large conglomerates endowed with initial private capital and political connections on the other. This particular feature of Egypt's economic transformation was termed by Adly (2020) as 'Cleft Capitalism'. The specific nature of Egypt's market transformation, Adly argues, resulted from the particular routes through which big businesses emerged since Infitah, whereby a small number of politically connected actors were granted favourable access to resources, including allocated state-owned land, divested SOEs and bank credit (Adly 2020, 29, 32).

More broadly, the economic relations that emerged from IFI-led liberalisation are embedded within the particular historical conditions and pre-existing social and political relations that characterised the Egyptian landscape. For example, among the range of market actors enabling the expansion of market exchange, not all were aligned with the state apparatus. Some of the large capital holders that became increasingly active in the 1970s and 80s were wealthy landowners from the period before the 1953 military takeover, while others were leaders in the retail trade and construction sectors that remained active during the Nasser era (Adly 2020,57). Nonetheless, a significant contingent of market actors were tied to the ruling regime, for example through membership in the ruling National Democratic Party (NDP) or other forms of regime support under Mubarak. These private sector firms established dominant market shares in key economic sectors such as manufacturing, construction, retail, whole trade, agriculture and tourism. Further, public sector managers with connections to the military took advantage of their positions in the state bureaucracy to facilitate rent-seeking by companies linked to the Armed Forces, as discussed in section 6.3. Rather than being invested in market activities, i.e. being targeted to investment and value creation, these rents remained within the closed circuits of military and politically-connected private accounts.

In the early to mid 2000s the domestic context of economic policymaking began to shift, informed by a growing international consensus that acknowledged market failures, and that recognised the role of state institutions in ensuring the presence of functioning markets for inputs and outputs, especially regarding the provision of public goods (market information, training, R&D, and loans and credit). Departing from earlier liberalisation policies (adopted during the first wave of economic restructuring took place in 1990s), the Egyptian government of then Prime Minister Ahmed Nazif embarked on an industrial development strategy that entailed both accelerating economic reform (liberalising the industrial sector and increasing private sector participation), while implementing vertical industrial policies to address market failure (Loewe 2013, 33). In 2005 the Nazif government began to implement this vision with the launch the 'Egypt Industrial Development Strategy (EIDS)', a program built on eight fields of action that included human resources, access to finance, infrastructure, exports and FDI (Loewe 2013, 33).

Previously, the neoliberal orientation of the global policy environment had encouraged the rollback of the state in the provision of public education and training to enhance human capital and improve skills. During this time the circles of state power where decisions were made in Egypt became increasingly dominated by figures representing the interests of big business, redefining a role for the state in the market in accordance with the prevailing liberal market ideology of a private-sector dominated economy (Roccu 2013, 40). Ahmed Nazif's cabinet represented this qualitative shift in the composition of the ruling coalition, where representatives of big private capital who headed family-owned conglomerates carried increasing weight in the state bureaucracy, advancing an economic agenda aimed at liberating public assets, from bank credit to state-owned land, from government control, and protecting their monopolistic positions in certain markets (Adly 2020, 90, 98).

And yet despite the empowerment of certain elements within the private sector during the 1990s and early 2000s, well-entrenched bureaucratic elite and societal actors continued to play a significant role within the Egyptian state bureaucracy, determining the extent and direction of reforms promoted by IFIs. As noted by Roccu (2013), in the liberal market shift that occurred in Egypt following Infitah, the state surrendered only part of its function relating to production and management, maintaining its dominant role regarding planning, incentive setting, distribution and coordination (2013, 41). By 2008 when the global financial crisis hit, the Egyptian economy integration into global markets was still far from complete due to the limited internationalisation of its banking sector and the lack of sophisticated financial instruments, which helped to shield Egypt from the worst effects of the crisis (Roccu 2013, 103). This was largely due to the dominance of an ideology of economic nationalism among Egyptian elites, even prior to the 1952 revolution that brought Nasser into power (Vitalis 1995).

As discussed in the following section, the nationalist tradition of Egypt's political economy is characterised by a hierarchal state bourgeoisie dominated by retired and former members of the Egyptian Armed Forces. The state administrative apparatus is populated by top bureaucrats with a military background. Among other military-owned companies and conglomerates, the National Service Project Organisation (which was founded by presidential decree under Sadat) continues to represent military interests in the civilian economy, establishing for-profit projects and entering into joint ventures with private investors. The military has maintained its regulatory mandate over desert land since the Nasser era allowing the armed forces to bolster its wealth and influence by continuously extracting economic rent from domestic and foreign private capital (Barayez 2016). All of these factors have granted the military a continuous flow of new opportunities for accumulation and ability to manipulate economic processes for political purposes.

It is thus that, in the wake of the Egyptian revolution of 2011 and as foreign capital began playing an increasingly larger role within the Egyptian economy, territorialised factors articulated with narratives of global economic integration produced the legitimacy of the military order. Ultimately, increased economic wealth helped to reinforce the political influence and legitimacy of the Egyptian Armed Forces following the military takeover of 2013, and heralded in a new phase of Egypt's liberal market reform with militarised development at its heart.

6.2. Constructing a new model of economic zones in the Suez region

In 2002 the Egyptian government passed Law No. 83/2002, allowing the President of the country to establish by decree the country's first and only Special Economic Zones (SEZ) next to the city of Ain Sokhna on the southern entrance of the Suez Canal along the Red Sea Coast (Law No. 83 of 2002 on Economic Zones of a Special Nature, 2002). Egypt is host to a variety of pro-investment regimes. The oldest of these regimes are free zones, which were established in the early 1970s to support imports and exports by removing customs duties, corporate income tax and VAT in nine strategic, geographically delimited locations in the country. Around the turn of the century, however, SEZ's began gaining global recognition and acceptance as a superior model of economic zones and the optimal instruments to enhance economic development and global market integration (UNCTAD, 2019). When the SEZ law was passed in Egypt, the Egyptian government appeared optimistic that the new special investment regime would act as a developmental spearhead by creating strategic links to world markets in Suez and beyond.

As a new experimental component of the government's economic agenda, the Suez SEZ incorporated many of the features of the country's free zones, in particular with regards to the aim of facilitating a high concentration of export-oriented activities. But the SEZ differed in key ways from Egypt's earlier zone experiments (table 1.6.). Previously, the logic for free zones in Egypt was to attract businesses through tax incentives and cheap land, with minimal government involvement in operating, managing and marketing these sites. Limited government oversight resulted in the concentration of domestic firms looking to import goods duty free, and the failure to attract foreign capital due to the absence of suitable facilities for export-oriented manufacturing in the host regions (Adly, Cairo, 2018).

Egypt's SEZ framework, on the other hand, while also implemented to help the country adapt to trade liberalisation and economic globalisation, reflected a growing global orientation towards centralised spatial planning. Specifically, there has been a growing trend of countries adopting a new kind of spatial industrial policy that emphasises the role of governments in providing infrastructure and services to drive FDI inflows and generate spillover effects as a way to catalyse economic transformation (Schindler et al 2022). The best practice guidelines of the new spatial growth agenda place emphasis on institutions and governance, connective infrastructure and targeted incentives (see chapter 3).

Table 6.1. Economic zone regimes in Egypt (Source: OECD 2020)

	Public and Private Free zones	**Investment and Tech Zones**	**Special Economic Zones**	**Qualified Industrial Zones**
Law	Law No. 72/2017 on Investment	Law No. 72/2017 on Investment	Law No. 83/2002 "Economic Zones of Special Nature Law", Amended by Law No. 27/2015	Protocol between Egypt, Israel and the U.S
Executive Regulation	Prime Minister decree No. 2310/2017	Prime Minister decree No. 2310/2017	Prime Minister decree No. 1625/2002	--
Competent Authorities	• Board of the Zone Authority • GAFI	• Board of the Zone Authority • GAFI • Competent Minister pursuant to the speciality of the Zone	Board of the SEZ Authority	QIZ Unit, Ministry of Industry and Trade
Dispute settlement mechanisms	• National Courts • GAFI Dispute Settlement Centre • 3 Ministerial Committees; • The Egypt Arbitration and Mediation Centre • Private arbitration (domestic and international)	• National Courts • GAFI Dispute Settlement Centre • 3 Ministerial Committees • The Egyptian Arbitration and Mediation Centre • Private arbitration (domestic and international)	• National Courts • Zone Dispute Settlement Centre (yet to be established) • Private arbitration (domestic and international)	• National Courts • Private arbitration (domestic and international)
Tax incentives	• Corporate income tax: 0% • VAT: 0% • No customs duties and procedures	• Corporate income tax: 22.5% • VAT: 14%	• Corporate tax: 22.5%** • VAT: 0%	• Corporate tax: 22.5% VAT: 14% • No customs duties and procedures
Export incentives / requirements	• Minimum exports for public free zone projects set by technical committee • Minimum of 80% of export for private free zone projects	Tech zone: No custom duties on intermediate inputs	No customs duties	• Duty-free access to U.S market & no quota limit • 35% local content requirement, of which a minimum of 10.5% must be Israeli inputs.

6.2.1. Spatial policymaking for global market integration in the Suez Special Economic Zone, 2003 - 2013

The Suez Canal Special Economic Zone (SEZone) was established in 2003 on 20.4 square km of land spreading across the third and fourth sectors of the Suez governorate's Special Free Zone (figure 6.1). The proposed masterplan for the SEZone was developed by the SEZone Main Development Company (MDC n.d.), an Egyptian shareholding company and joint consortium of Egyptian and Chinese interests established in 2006 to provide land and act as the SEZone's development arm (MDC Company Profile n.d.). The creation of MDC was mandated by the President, and the company's shareholder structure includes the government authority responsible for the Suez SEZ (owning 51 percent of shares) and Egyptian State Owned Enterprises (SOEs), reflecting a key facilitating role of state actors and agencies in the zone's development (Daily News Egypt 2014; MDC n.d.). The vision outlined in MDC's masterplan is closely aligned with the objectives of export development and deepening Egypt's integration into the global economy, an approach described in this research as GVC/GPN development.

MDC's stated strategic objectives in the SEZone included targeting activities in the medium and light industries sectors that aligned with Egypt's comparative advantage such as chemicals & petrochemicals, construction and building materials, auto-parts manufacturing, food-processing, home appliances and textiles and pharmaceuticals (MDC n.d.). According to MDCs former general manager, however, strategic planning in the SEZone responded to investor demand. MDC had no involvement in attracting investors to the zone or determining strategic investment sectors. MDC's main responsibility was to attract 'sub-developers' who have the authority to determine sectors of investment, with the approval of the SEZ authority (Sameh, Cairo, 2018)

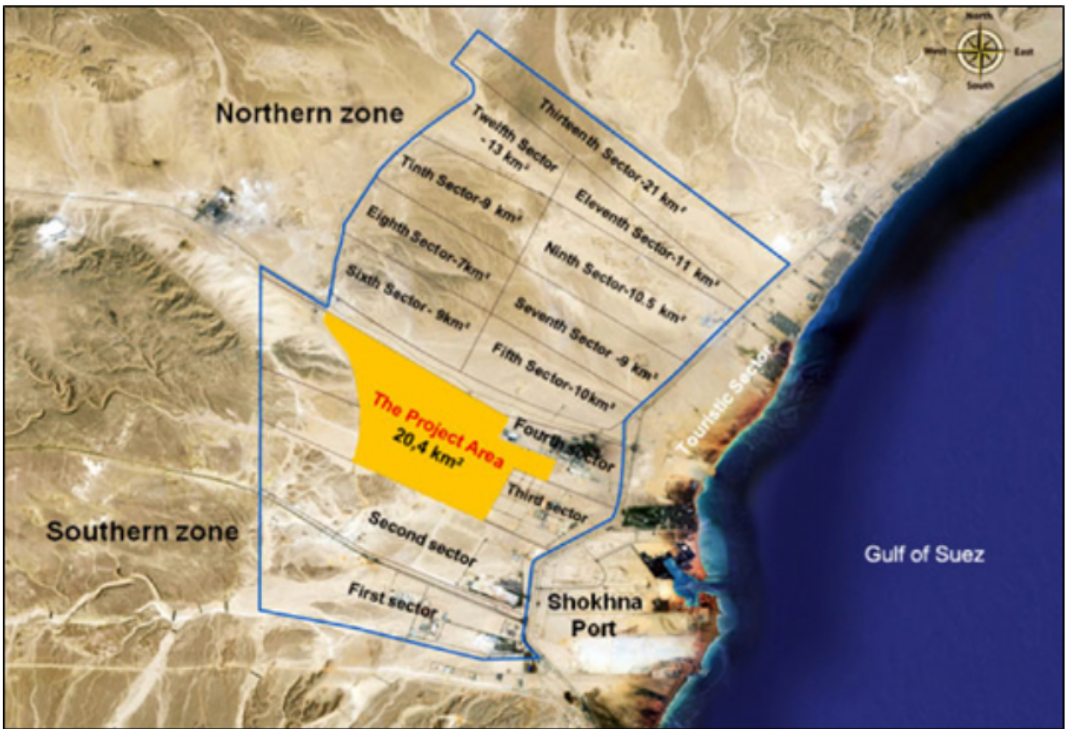

Figure 6.1. SEZone project area (Source: MDC Egypt)

The Egyptian SEZ law, which acts as the SEZone legal framework, mandated the creation of an independent authority as the zone's main regulatory body. Following international best practice, the SEZone authority is anchored in the highest level of government, but plans are devised separately from broader government strategies, granting the body a level of administrative autonomy. The Egyptian SEZ law also enacted a regulatory regime in the SEZone that diverged from traditional free zone models, extending an array of advantages to investors alongside conventional duty free privileges to attract export-oriented FDI. Added incentives include a diversity of economic activities, lower income and unified income taxes (5 percent at all income levels versus 10-20 percent in other zone regimes), easier access to the domestic market (no export performance requirements as in the case of free zones), and customs duties on exports to Egypt that are imposed on imported components only, not the final product (GAFI). SEZone regulations also permitted 100 percent foreign ownership of companies, 100 percent foreign control of import/export activities and exemption of imports from customs duties and sales tax, and mandated the establishment of dispute settlement and a single point authority for investor services (GAFI).

A second international mode of best practice adopted in the design and development of the SEZone is the provision of efficient, large-scale infrastructure in the hope of attracting GVC activities. While the advantages of traditional Egyptian free zones were limited to serviced industrial land and trade and financial incentives, the SEZone offered a package that combined industrial zones with commercial facilities, planned residential areas and significantly, critical infrastructure and services to enhance physical and strategic connectivity. This includes ports and logistical services, transportation networks, communications infrastructure, a water plant, sanitary network and a wind power generating plant (State Information Service n.d.).

The model of infrastructure delivery adopted in the SEZone is one where governments mobilise capital (domestic and international) for the purpose of infrastructure investment, since infrastructure provision requires resources that lower and middle-income economies like Egypt simply do not have. As the main developer, MDC (itself a Public-Private Partnership) is licensed by the government to ensure the provision of serviced industrial land (including network connections and utilities), basic infrastructure, management and a proposed masterplan for the SEZone (Sameh, Cairo, 2018). But individual private investors or consortiums of investors would finance, design, build and operate individual integrated economic zones that would include industrial estates as the main component of their masterplanning in addition to logistics, services, commercial, residential and administrative facilities (Sameh, Cairo, 2018).

Despite years of active site-marketing operations, by the mid to late 2000s progress in servicing the land in the SEZone and attracting firms to set up there was still going slow (Brautigam and Xiaoyang 2012, 76). This was primarily a result of an Egyptian political-economy weighed heavily towards a domestic private sector whose relationship to the state was characterised by corruption and rent-seeking (Adly, Cairo, 2018). Over the years successive rounds of free market reform in Egypt had generated a system of rent-seeking and patronage in which large monopolies and family-owned conglomerates benefited from their relationship with the state. Under an aggressive privatisation and deregulation program in the 1980s and 1990s these large enterprises grew bigger, dominating key sectors in the Egyptian economy and generating massive profit (Adly 2017). When it was established, initial investments in the SETCzone came from domestic private sector actors hoping to capitalise on cheap land to set up export businesses. Four Egyptian enterprises established industrial parks hosting a range of industries including concrete, steel, ceramics and mineral and petrochemical production (Samy, Suez, 2018) but otherwise occupancy rates in the SEZone remained low given the government's failure to generate new activity outside its pre-existing business relationships (Hafez, Cairo, 2018).

The performance of the SEZone in its first decade thus reflected the quality of market actors active in the economy in which the zone is embedded, primarily large enterprises that hold the greatest share of output and investment in the Egyptian market (Adly 2020). But following the 2011 Egyptian revolution, as decision-making began shifting to other parts of the state bureaucracy, old patronage networks were dismantled and new actors networks emerged in which foreign and Arab investments took the lead across a range of significant economic sectors (Adly 2017). Precipitating this transformation was the capture of state power by the Egyptian Armed Forces (EAF). The military takeover of 2013 and subsequent rise of former military officer President Abdel Fattah el-Sisi to power as President of the Republic widened the scale and scope of the EAF's pre-existing intervention in civilian economic activity and political life.

Under Sisi's presidency Egypt embarked on a new phase of domestic governance that combined global free-market reforms with centralised control over the economy, a strategy underpinned by spatial planning schemes to facilitate integration into global markets. An emerging role for the Egyptian state as supervisor and facilitator of markets, a role consistent with the contemporary norms of international development, legitimised its authority and saw increased collaboration in different manners between the public sector and international capital, marking a retreat of the domestic private sector from participating in the execution of 'national' projects (Adly 2017).

The capture of state power by the Egyptian military was thus the condition of possibility for the shift to a global market-oriented approach to development in Egyptian, with militarisation emerging as the domestic political-economic context for the full embrace and consolidation GVC/GPN-oriented spatial policymaking in Suez.

6.2.2. Reframing the Suez SEZ as a global industrial hub under the Suez Canal Regional Development Project (SCRDP), 2015-present

An emergent global coalition of state and market actors (Schindler et al 2022) in Egypt was consolidated with the launch of the military-backed government's new economic strategy, which envisioned national megaprojects and large-scale infrastructure construction as the engine of development (Calabrese 2020). Under the Egyptian government's strategic "Vision 2030" Egyptian authorities implemented a series of liberal legislative interventions, such as allowing the Egyptian Pound to float freely on the currency market in 2016; bringing the new law of investment into force in 2017; and implementing new cuts to fuel and electricity subsides in 2018. These measures, taken at the advice and under the guidance of the IMF, aimed at attracting new infrastructure investments into the country and fostering private-sector-led growth, enhancing in the process the EAF's involvement in managing massive public works projects to create a public impression of national ownership (Achcar 2016, 83-85; Hanieh 2014, 132).

The Suez region figured prominently in the government's new program and in 2015 Egypt inaugurated the Suez Canal Regional Development Project (SCRDP). The SCRDP is a megaproject focused on the economic regeneration of the Suez Canal axis as part of the Egyptian government's new strategy for generating economic growth. Among others, Saudi Arabia, UAE, Russia and China-based companies signed deals to develop projects in the region as investment opportunities opened in a significant areas of activity that included manufacturing and services, infrastructure, ports and logistics, maritime services and renewable energy (Ngage Consulting 2016).

The SCRDP would be implemented in a newly rebranded and expanded Suez Canal Zone (SCzone). In 2015 the Egyptian president issued Decree No.330 amending the SEZ law of 2003 with Law No. 27/2015, which placed the entire Suez Canal axis, an area of 461 square kilometres, under special jurisdiction with infrastructural and port development projects planned in several critical areas (Law no. 27 of 2015, 2015). The project's geographical scope covered the three governorates of the Suez canal, incorporating the geographical hinterland of East and West Port Said in the Port Said region, West of Qantara and East of Ismailiya in the Ismailiya region, and site of the old SEZone, the industrial estate North-West of the Suez Gulf in the Suez region (Sameh, Cairo, 2018). The new SCzone also encompasses six seaports, including the ports of Port Said in Port Said city, and Ain Sokhna and Adabiyya ports in Ain Sokhna. In the Suez governorate the former SEZone was one of the new masterplan's top priority areas, with the town of Ain Sokhna slated to serve as one of two major integrated industrial and logistics hubs on the Suez Canal that would include industrial, commercial, residential and logistical activity (AMCHAM 2016; State Information Service n.d.)). The SCRDP's design and location would provide exporters access to a total of 1.8 billion customers, according to an MDC former manager (Sameh, Cairo, 2018)

The SCRDP thus marked a new phase in the SEZone's development. Its launch in 2015 accelerated the pace and scope of a spatial-economic transformation process that began almost two decades earlier by recasting the Suez Canal axis as a hub of global investment, and attempting to position the area as a significant node in global supply chains (AMCHAM 2015). Although the development of the Suez region under EAF rule did not directly engage liberal market actors, the area is thoroughly entrenched in a global process of spatial-economic restructuring driven by leading international development actors aimed at the global integration and connectivity of places and regions. This is because organisations that monopolise institutional knowledge in the field of economic development disseminate and make dominant the knowledge and practices that governments use to regulate economic relations, shaping markets to correspond to their particular vision of development.

The new framing of the Suez region as a hub of global investment was inscribed through the dominant discourses and models of global development, which are transferred and diffused through circulating technologies and forms of expertise. Planners, developers and business advisories, are among the range of actors who played an active and decisive role in transmitting and diffusing global frames of knowledge and action. To illustrate, in 2014 the Suez Canal Authority (SCA) invited joint venture consortia to submit masterplans for the Suez Canal Regional Development Project (SCRDP) that followed contemporary standards and methods of economic planning (Sea News 2014). A consortium led by Lebanon-based international consulting company Dar Al Handasah was awarded a tender to develop an integrated masterplan to develop the area adjacent to the Suez Canal region (AMCHAM 2015). The consortium joined an existing cadre of international consultancy firms retained by the government of Egypt to draw up area development plans in various locations, including Worley Parsons, Witteveen + Bos, AECOM Middle East, Scott Brownrigg, Port Consultants Rotterdam BV and McKinsey & Co (Sea News 2014). In 2016 the SCzone Authority hired a number of consulting firms to conduct land valuation studies based on international benchmarks and valuation methods to determine land prices that are both competitive for foreign investors and profitable for the state (Hafez and Madani 2020).

Perhaps the most significant study among those conducted was a strategic plan prepared by international consulting firm McKinsey on designing a successful SEZ in the Suez Canal Axis. According to an official source interviewed for this research (Anonymous source (d), Cairo, 2017), Mckinsey was awarded a tender to prepare an elaborate and detailed study comparing the SRDP to 14 other international zones in the regions in preparation for developing a trade liberalisation and investment facilitation strategy for the Suez region[5]. The case studies included zones in Morocco, Ethiopia, Saudi Arabia, Greece (whose Piraeus port is a competitor to Port Said), China and Singapore. The primary focus of the study was to help the Egyptian SEZ gain a competitive edge in strategic industries. The study examined individual products produced at competitive costs in select zones (textiles and garments in Ethiopia, auto manufacturing in Tangiers, Morocco), calculating the percentage cost of raw material, energy, labour etc to see which factors of production Egypt can offer at a more competitive rate. This was in order to present a good "value proposition" for the right customers, according to the source, allowing them to achieve competitive advantage by producing goods at the lowest cost possible in the SCzone.

McKinsey's approach of supporting the underbidding of competing zone operators is emblematic of a wider 'race to the bottom' in the global economy. Within a globalised world economy, product manufacturing costs are brought down by paying the cheapest wages, lowering environmental protections and reducing the price of public goods to attract foreign economic activity. The SCzone's top regulators nonetheless saw great benefit in accepting these terms according to the official source (Anonymous source (d), Cairo, 2017), with a view that incoming investments will generate opportunities for increasing value-added in the domestic economy in the long-term.

The rationale behind zone planning in the SRDP thus reinforces the ideas of GVC/GPN. A GVC/GPN-oriented development approach rests on the assumption that the economic benefits of insertion into global markets will trickle down to communities once the enabling conditions are provided for transnational firm activity, and that governments need to take an active role in facilitating the creation of environments responsive to the needs of mobile industry. The latter includes removing market constraints by reducing regulatory barriers to global capital, and providing infrastructure services and comprehensive support facilities for the entry of investors.

6.3. Militarised development and implications for spatial-economic planning in the Suez Canal region

On the one hand, the centralisation of political and economic power in the Egyptian development landscape is consistent with a broader turn in global development that promotes

[5] The McKinsey report was commissioned by the SCzone authority. The report is a classified document that has not been made available for public viewing according to the official source who provided information about it.

the driving role of state authorities in facilitating integration into global markets (Schindler et al 2022). On the other hand, transformations in the domestic economy can only occur through the actions of agents who produce and reproduce the relations of the market, and are thus themselves part and parcel of the global development landscape. Examining the particular nature and strategies of situated actors underpinning market relations reveals more complex dynamics than normative analysis on statehood or market transformation can predict.

In the Egyptian context, embedded norms, institutions and modes of practice have produced a specific form of statism dominated by the military arm of the state bureaucracy in recent years. The progressive capture of state power by the Egyptian Armed Forces (EAF) since 2013 has resulted in the dismantling of old patronage networks in Egypt, as the EAF built new alliances that favoured the military class in a range of new sectors of economic activity (Sayigh 2019, 237). Within this emergent trajectory the EAF have sought to consolidate power and enhance the military institution's legitimacy by expanding its role in international business and trade while generating opportunities for rent seeking along the way. Rent seeking refers to the state's engagement in activities that aim to maximise wealth without significant success in boosting productivity or shifting the structural characteristics of the domestic economy.

One of the cornerstones of the EAF's economic strategy is a heavy reliance on land commercialisation as key drivers of development and infrastructure construction, scaling up what authors have described as a real-estate approach to development (Sims 2015, 369). The latter term was used in reference to land speculation, formerly the predominant mode of deriving income from land in Egypt (Sims 2015). Speculative investment in real estate involves buying early, waiting and then selling for profit. As Egypt experiences an infrastructure and building boom land commercialisation, which involves selling land to developers who provide added-value and sell it at a much higher price (rather than simply trade in land), appears to have become a dominant strategy for extracting land rents. "Underutilised" land is commodified and becomes a financial asset, and FDI inflows primarily represent a transfer of assets (often at an under-priced basis) rather than an increase in productivity, including in manufacturing cooperation initiatives. These transfers have come to define Egypt's integration into global markets.

It is through such entanglements that global markets are constructed and as such, it can be argued that a militarised development landscape – which has been termed by one economist interviewed for this thesis as "military neoliberalism" (Shenety, Cairo, 2018) - did not result from insufficient marketization of the economy but rather was itself constitutive of these processes.

Much of the new activity in this respect has been concentrated in strategic geographical locations including the new capital east of Cairo, the Sinai peninsula and along the Red Sea coast, and the Suez Canal region, where plans are being implemented to transform the area into an international industrial, logistics and transport hub. Underpinning this activity is a historical domestic trajectory in which the military came to control large swaths of unallocated public land in strategic areas of the country, and an enduring reliance on rentierism to expand its structural advantage within the domestic economy (Sayigh 2019, 19).

6.3.1. The Egyptian Armed Forces' relation to land: A historical perspective

The EAF's relationship to state land has formed the cornerstone of its activities for the past 50 years, helping to expand the military's influence in domestic politics and government and in the broader civilian economy (Sayegh 2019, 19). This relationship is one where the military possesses unrivalled access to a large reserve of public land and regulatory jurisdiction to derive income from land. Its persistence has helped to maintain a governing system that prioritises securing income streams for military bodies and institutions over the types of policies that might catalyse productivity and effective use of domestic resources. Today's military economy thus evolved from the spatially and historically embedded determinants of political and economic life in Egypt, and is rooted in wider legacies of economic nationalism and national security that have shaped the trajectory of the country as a whole (Abul-Magd 2017, 11-12).

The military's exclusive rights to exploit government land can be traced back to rule of Egypt's first president and former officer Gamal Abdel Nasser in the 1950s. Under a regime that was both authoritarian and military, the EAF became a powerful institution within the wider state bureaucracy, intricately linking the military with state power through extensive and cross-cutting networks of clientelism (Springborg 1989). The EAF's control over public land and involvement in national projects remained somewhat restrained in the early years of the Republic, but after Egypt's economic liberalisation in the 1970s the government began to increasingly rely on qualified departments in the military to implement national projects and deliver on national development goals. During this time the military increasingly began to emerge as a competitor to the private sector (Achcar 2016, 88). In the aftermath of the 1967 war with Israel and increasingly following the 1979 Egyptian-Israeli peace treaty, the EAF employed the national security argument to assert its exclusive right to lead on socioeconomic development in strategic zones in the country (Sayigh 2019, 112). This period witnessed what Robert Springborg (1989) referred to as the horizonal expansion in the role of the military in the national economy (Springborg 1989, 107). The establishment of extensive military zones along the Suez Canal and East of the capital Cairo following the 1967 war granted the military veto power over the use of prime state land and exploitation of natural resources in these areas (Adly 2020, 87, 99; Sayigh 2019, 103; Sims 2015, 361).

Consequently Egypt's Ministry of Defence now holds almost exclusive rights to license the use of state land in the Suez governorate, while across the rest of the countries several other ministries share this regulatory jurisdiction with the Ministry (Adly, Cairo, 2018). The ability to designate the use of state land has long been a major source of income for the Ministry of Defence in Suez and elsewhere. But alongside revenue generated from leasing state land, the EAF derives considerable income from lucrative public works contracts implemented or managed by EAF departments. The EAF is the favoured contracting partner for major contracting civilian/public entities (ministries and economic authorities) (Sayigh 2019, 9). Large public works projects in Suez are typically conducted by agencies and companies affiliated with the EAF, primarily Ministry of Defence affiliated bodies like the National Service Projects Organization and the Armed Forces Engineering Authority, which engages in civilian and military infrastructural projects (Attalah and Hamama 2016).

Figure 6.2. Road being constructed by the Armed Forces Engineering Authority on Northern Galala Plateau in Suez (Source: Author, Suez, 2017)

Underpinning the EAF's privileged access to state land (including control over land-use licensing) and public works contracts is the managerial role that the EAF's members play in the state bureaucracy. Since the Nasser era EAF officers have assumed senior positions in the state apparatus and in public sector companies, allowing them to form extensive military networks that dominate the most strategic authorities and institutions of the state (Marshall 2015, 4). Former air force officers head the civil aviation authorities and companies, former naval officers manage the maritime sector and the Suez Canal, and army officers dominate ground transport infrastructure, construction, energy, mining and quarrying, telecommunications and public infrastructure and utilities, among other sectors (Sayigh 2019, 161-162, 317).

The Egyptian military's access to both state and economic power has allowed the EAF to influence policy setting and investment strategies while enabling insider practices in access to state assets and the award of contracts (Abul-Magd 2017, 228; Hauslohner 2014, Marshall 2015, 14; Stacher 152-153). In Suez the Ministry of Defence's formal hold over state bodies, including the Suez governorate, has allowed the EAF to generate income from leasing and land-use, implementing or managing schemes to develop and cultivate desert land and investing in national and international ventures (Sayigh 2019 7, 104). The EAF's hold over the Suez Canal Authority (SCA), SCA's subsidiary agencies and companies and most of the forty-three ports along the 2,420 kms of Egypt's coastline has allowed military-owned facilities to generate a steady income from contracts from service and support facilities for transit shipping (Marshall 2015, 14; Sayigh 2019, 112).

Scholars have pointed out that the expansion of the military's rent-seeking activities, its misuse of state resources, and its tendency to assign itself the role of contract broker are all part of a wider Egyptian regime maintenance strategy that prioritises the capture of income streams over exploiting domestic resources and boosting domestic productivity (Adly 2020, 66; Sayigh 2019, 2, 19). The EAF's strategy of land-commercialisation and public contract-capture can thus be seen as reproducing the prevalent rentierism of Egypt's political economy. In this system members of the state bureaucracy, including military institutions and groups, utilise public resources to appease key constituencies, while seeking rental income for themselves generated by access to state resources and land, doing nothing to increase the productivity of the Egyptian economy (Sayigh 2019, 19). Following the seizure of political power by the EAF in 2013, military companies and institutions responded in similar ways to rent-seeking opportunities that opened up due to recent shifts in the country's economic orientation.

The scale of the new projects has massively intensified the commercialisation of public land in the Suez region. But it would be inaccurate to say that rentierism is the EAF's only mode of operating. There is a new overarching logic to the EAF's economic activities. Seeking to establish a new political status quo with the military at the helm, the EAF has sought to enhance the domestic and international legitimacy of Egypt's military-backed government by expanding its role in international business and trade. Doing so helps EAF consolidate its grip on political power while generating opportunities for rent-seeking along the way (Achcar 2016, 89-90; Sayigh 2019, 2).

6.3.2. Transformations in the Sisi era: The militarisation of SEZ planning and governance in post-2013 Egypt

Over the past three decades in particular EAF retirees have come to dominate the Egyptian state apparatus by being assigned to the management of key public sector bodies and state institutions (Abul-Magd 2017, 229, 231). Following the election of the military-backed president Abdel Fatah el-Sisi in 2013, the EAF began to consolidate its role as primary agent of development by further infiltrating the state bureaucracy. In Suez the EAF established its authority to determine policy and regularity frameworks in the entire Suez Canal axis region by seizing control over the General Authority of the Suez Canal Economic Zone (SCzone) in 2017 and bringing the area under military governance. Taking over the SCzone authority marked a new phase of public control of the economy with the military at the helm, spearheading Egypt's transition to military-led development.

The General Authority of the Suez Canal Economic Zone (SCzone authority) was formed in 2015 after the Egyptian cabinet issued an order to establish an ostensibly autonomous body responsible for governing the Suez Economic Zone in accordance with the Special Economic Zones Law No. 82 of 2003. The SCzone authority would be exclusively responsible for the regulation and management of the SCzone. Its function is to implement regulation applied within the zone (this includes provision of investor services) and introduce its own regulations, in addition to overseeing the area's development, including designating developers and allocating land. As a national agency the authority also has the right to hold equity shares in private development companies. Accordingly the SCzone authority owns 51 percent of shares of MDC and participatory stakes in ECCI, a second government-licensed SEZ developer and domestic partner of Tianjin-TEDA in the Suez Economic and Trade Cooperation Zone (SETCzone) (see chapter 7).

Following international best practice on SEZ governance (see chapter 3), the SCzone regulatory authority was formed as an autonomous entity that it is anchored in the highest possible level of government (technically operating under Egypt's cabinet) to establish and manage a geographically-focused SEZ regulatory regime. As a government body however the SCzone authority wields enormous power through its Board of Directors, hence the steps taken to bring the authority and its Board of Directors under military control.

According to Egypt's Special Economic Zones law, the authority's Board of Directors (BOD) would be tasked with the zone's everyday management, while also overseeing processes that included investment promotion, incorporation and licencing, and decisions related to taxation among other matters. Though composed largely of government ministers, the BOD would also on paper operate independently of the central government, following international best practice in SEZ governance of creating an autonomous regime capable of avoiding the usual state bureaucracy and providing a compelling business environment for economic activity. A republican decree issued in June 2015 reinforced the mandate of the BOD, stipulating that the BOD would have the authority to issue the necessary licenses to establish projects, companies and activities within the region and authorise them to practice (The Presidency of the Arab Republic of Egypt, 2015).

The SCzone's first BOD was initially headed by a civilian technocrat, Dr Ahmed Darwish. Darwish's tenure was short lived however, and he was dismissed after 18 months in office, purportedly for terminating contracts and licenses issued to companies run by retired military officers. Darwish himself denied this claim in an interview for this thesis (Darwish, Cairo, 2017). In 2017 the Egyptian president issued Decree No. 200 of 2017 assigning Admiral Mohab Mamish, former navy chief and head of SCA, to replace Darwish as head of the General Authority for the Economic Zone of the Suez Canal, shifting authority over the SCzone, and responsibility for administering the region's development to the military-led SCA, which became the official umbrella of the SCRDP (State Information Service, 2017). SCA is one of various general authorities in Egypt established by presidential decree, but while most such authorities come under ministries responsible for the relevant sectors, SCA has always been autonomous and under the control of the military.

The military-controlled SCA had already been practicing unrivalled influence over the SCzone even before the decision to replace Darwish. On paper the BOD was empowered to take decisions independently, but in practice the BOD had no authority over SCA. BOD proposals had to be sent for approval by SCA and would often get rejected, and decision by the SCA would end up overriding that of an 11-person board. In the words of an official source who requested anonymity, there was a dysfunction in the governance structure to begin with. Admiral Mamish, who had a different idea about how to run the zone and the nature of its relationship with SCA, was already running the BOD and therefore should have just been assigned chairman to begin with (Anonymous source (d), Cairo, 2017).

But by formally taking hold of the SCzone's governing body, the EAF was able to establish control over the geographical scope of the Suez development project and practice official and unrivalled control over government policy, investment decisions and decisions relating to land-use. At a higher level of government, the Suez Canal Regional Development Project (SCRDP) was placed under, and officially headed by the Executive Council, a ministerial/cabinet-level body which was nevertheless also presided by the Chairman of the Board of Directors and head of SCA, Admiral Mohab Mamish (Elbahnasawy 2013). This placed the SCzone under the full authority of the EAF. Citing security concerns, the President also placed the SCRDP under the security cover of Egypt's second and third army (State Information Service n.d.), which have long used national security as a justification to assert control over large projects in strategic zones.

6.3.3. Consolidating new actor networks and enacting GVC/GPN development in the Suez Canal Economic Zone (SCzone): Land commercialisation as a strategy for global economic integration

After establishing itself at the centre of the Suez Economic Zone regime governance, the EAF began progressively excluding large domestic enterprises from the region while transferring the rights to develop and use land to international investors. In 2014 the President issued a directive that effectively enacted an earlier cabinet order of withdrawing 21 million square meters of undeveloped land previously allocated to domestic investors. Additionally, property in the SCzone would henceforth be offered to investors under the usufruct system, where the investor pays a nominal price to use and derive income from public land (Almal News 2014; Marefa n.d.). The decree spurred a crisis between Egyptian-owned factories and the government, and in 2017 five Egyptian factories were forced to shut down when the Industrial Development Authority and General Authority for Investment, government institutions that had been responsible for issuing registration for most of the factories operating in the northwestern Suez region, refused to renew the industrial registration of these companies. The Authority justified its position by claiming that the issuance and renewal of the industrial registry had come under the jurisdiction of the SCzone under the Economic zones law. Consequently the Egyptian Customs Authority would not deal with their factories for not renewing their industrial register, refusing to release raw material shipments imported from abroad and shipments intended for exports and eventually stalling their activities.

And yet the military did not seek to side-line Egypt's business elite completely, partnering with a number of large companies and developers on large projects managed by military companies and authorities (Adly 2017). For example, the Defence Ministry-run conglomerate National Service Project Organization (NSPO) partnered with domestic industrial developer Industrial Development Group (IDG) and two other Egyptian economic giants to develop new industrial area in East Port Said, one of the main development areas in the Special Economic Zone alongside Ain el Sokhna and Qantarah (El Mofty 2018; Lusha n.d.).

But a clear focus had begun to emerge following the military takeover of 2013 on attracting foreign capital, including major investments from Europe India and China into industrial parks being established under military management in the area (Sayigh 2019, 207). By 2018 the contribution of foreign investments in the SCZone had risen to about 75 percent of the total investments in the zone, valued at $30 billion in 164 projects, while the contributions of Egyptian investors stood at 25 percent, according to official sources (Elawatan News 2018). Initially, China occupied the first place in the region's investments until Egyptian and Arab investments began to compete, and obtained a larger share of the total investments in the region in the following years (Elawatan News 2018).

The recent shift in the country's economic orientation with the inflow of foreign investments has enhanced the military's role as leader of development while affording the military establishment new lucrative opportunities for accumulation generated by its privileged access to state assets and ability to win public contracts (Sayigh 2019, 19). One primary source of EAF revenue in Suez is the rent accrued from granting use of state land, leasing facilities, levying tolls on highways and quarries and providing specialised transportation services. Another source of income streams is assured access by state-owned enterprises to lucrative infrastructure contracts, including by waiving fees for approving use of land in return for equity in joint ventures, and award of infrastructure, service and supply contracts to companies in which EAF agencies and officers have commercial interests (Sayigh 2019, 302).

Thus while the commercialisation of public land is not the only strategy used by the military to increase its economic advantage, land commercialisation has emerged following the capture of state power in Egypt in 2013 as a primary component of the Egyptian government's economic development toolbox and a feature of militarised development in Egypt. This trend appears to go hand in hand with a global consensus on state-led spatial planning promoting the mobilisation of private and state-to-state finance as a developmental priority within a broader paradigm to enhance connectivity among cities, resource frontiers, manufacturing centres globally (Alami 2022; Schindler et al 2022; Liu et al 2020). Expanding its role in international business and trade has provided lucrative opportunities for the Egyptian Armed Forces and its various institutions and companies. But the objective of the Egyptian military's engagement in business and the state bureaucracy goes beyond the aim of amassing profit. The EAF's economic engagements help to support the strategic, economic and security dimension of the military, one of various competing forces in domestic politics, enhancing its domestic and international legitimacy as the leading political authority of the state.

As the next chapter will demonstrate, formulating its own priorities, the EAF has thus becomes willing to synergise development objectives with international partners around the goal of enhancing spatial connectivity to achieve its objectives. In the context of Chinese-Egyptian cooperation in the Suez Economic and Trade Cooperation Zone therefore, both militarism and land commercialisation have materialised as emergent features of spatial-economic restructuring in Egypt that are constitutive of the broader landscape of contemporary development.

7. Assembling the Suez Economic and trade cooperation zone (SETCzone) in Egypt

The previous chapter provided an overview of the domestic political-economic context of GVC/GPN-led spatial policymaking in the Suez region in Egypt. The chapter traced the consolidation of new networks and hierarchies in Egypt's political economy concomitant with the consolidation of a GVC-oriented-oriented development agenda, shedding light on the emergent arrangement of actors that underpin and enable the relations of the market in the Egyptian context. The analysis showed that the Egyptian Armed Forces' (EAF's) growing influence on economic policymaking has massively intensified land-commercialisation as a key driver of development and infrastructure construction, consolidating the EAF's grip on political power.

This chapter examines how China's transferable zone model, underpinned by an agenda of GVC/GPN-oriented industrialisation, is translated in the situated context of Egypt's militarised landscape. The discussion examines the dynamic, interactive and negotiated process of assembling the Chinese-Egyptian Economic and Trade Cooperation Zone (SETCzone) in Suez. The chapter argues that Chinas objectives in the SETCzone intersect with a military strategy of land commercialisation, consolidating the EAF's grip on political power and rendering both land-commercialisation and the militarisation of development as emergent features of China's economic zone policy transfers that are constitutive of the landscape of economic globalisation in the context of China's rise. These trends contingently impact how the host region of Suez is integrated into Chinese circuits and world markets.

The chapter begins by dissecting the Chinese government's main motivations for establishing the SETCzone. It sheds light on the factors that grant the SETCzone unique status among other initiatives in the ETCzone program, and argues that the key objectives behind establishing the SETCzone intersect with the priorities of Egypt's vision for development in Suez. In the context of this discussion, the first part of the chapter also sheds light on the SETCzone's significance in the context of China's engagement in the Middle East and the geopolitics of connectivity in Suez, with a focus on how well China is positioned compared to other world powers competing for influence in the Suez region. The second part of the chapter provides an empirically informed analysis of two main areas of policymaking in the SETCzone, infrastructure development and land governance. By tracing the negotiated process of translating these globally circulated policy frames in the construction of the SETCzone, the chapter reveals geographically specific actor strategies and trends implicated in the zone's construction and in the overseas ETCzone program more broadly.

7.1. Chinese ambitions in Suez: The SETCzone as a global gateway for internationalising Chinese firms

The Egyptian government's decision to establish a Special Economic Zone (SEZ) in Egypt in the early 2000s intersected with the launch of China's overseas ETCzone program in 2007. While the Egyptian SEZ was created with the aim of attracting FDI to support export-oriented manufacturing and growth in Suez, the ETCzone initiative looked to channel Chinese investment into infrastructure projects that would encourage the unbundling of China's domestic industrial sectors (Liu et al 2020, 5). The main priorities of Egypt's new economic strategy in Suez dovetailed with China's emerging vision for overseas development, and in 2008 a joint ETCzone was established in Egypt as a platform for future cooperation between the two countries. The launch of the ETCzone marked a new phase of Chinese-Egyptian relations, one in which both countries would begin readjusting their strategies to the realities of an increasingly decentred and integrated world economy.

The strategic alignment of Egyptian and Chinese actors around a common agenda of pro-market development had started to take shape several years earlier upon the launch of China's Going Global policy in the late 1990s (see chapter 5). Following a visit by then Egyptian President Hosni Mubarak to China in 1999 the heads of state of the two countries signed a Joint Communique on the Establishment of a 21st Century-Oriented Strategic Cooperative Relationship. The strategic cooperation agreement prioritised economic cooperation and trade as key components of bilateral relations (Ministry of Foreign Affairs, the People's Republic of China, 1999). The agreement was reached in the context of China's opening up policy, which saw Chinese companies begin to invest heavily in Egyptian markets. During this time, Chinese Overseas Foreign Direct Investment (OFDI) to Egypt began to increase rapidly, with 93 percent of all investments in Egypt between 1983 and 2008 established between 2000 and 2008 (El-Gohari 2011, 28). As a site of strategic interest for Chinese investors, the Suez region in particular witnessed a surge in Chinese OFDI flows, particularly manufacturing investments. By 2008, total Chinese registered capital in Egypt stood at $225 million, with $156 million registered in the Suez governorate (El-Gohari 2011, 28).

The strategic cooperation agreement between Egypt and China paved the way for the establishment of a joint Chinese Egyptian industrial complex in the Suez economic area. During President Mubarak's 1999 visit to China an agreement was concluded to jointly develop an economic zone on public land owned by the Suez governorate in the North-West Gulf of Suez Industrial Zone as a spearhead for Chinese Egyptian cooperation. The plan gained momentum following the launch of the Suez Economic Zone (SEZone in 2002). As part of the Egyptian SEZ project Chinese developer Tianjin Economic-Technological Development Area Investment Company (Tianjin-TEDA) decided to separately develop a 1.34 km² production area in the third sector of the North-West Gulf of Suez Industrial zone directly adjacent to the port facility of Ain el Sokhkna. The Chinese production area would be established on land acquired by government-licenced Egyptian developer and consortium State Owned Enterprises (SOEs), the Egyptian Chinese Company for Investment (ECCI). TEDA had recently broken off an agreement with the SEZone's Main Development Company (MDC) made in 1998 to participate in the establishment of the SEZone in sector 4 of the Suez Free Zone (Brautigam and Xiaoyang 2011b, 75), and decided to partner with ECCI on a new project just outside of the MDC area that was eventually subsumed in the SEZone (Suleiman, Suez, 2018).

After winning the Chinese Ministry of Commerce (MOFCOM) tender to establish and economic cooperation zone in 2007 Tianjin-TEDA established Egypt-TEDA Investment Company, a country-based affiliate and joint venture in which ECCI had minority shares to develop the SETCzone in the previously initiated1.34 km² production area.

Figure 7.1. Egypt-TEDA administration building, the Suez Economic and Trade Cooperation Zone (Source: Author, Suez, 2018)

As a component of the Africa ETCzone program, the SETCzone's purpose was consistent with the broader objectives underpinning China's overseas zone drive. Overseas economic zones were first developed in the 1990s primarily with the aim of rebalancing China's economy outwards by facilitating the export of surplus capital to various overseas locations. As discussed in chapter 4, China's engagements in Africa began to increase during this time with the aim of securing oil and gas supplies. At the turn of the century the focus of China's involvement with different African countries began to expand beyond an interest in extractive industries and to incorporate cooperation in such areas as construction, agriculture and most significantly, industrial relocation. The ETCzone program was created to facilitate this shift, enabling the relocation of China's manufacturing industries to Africa. The zone program aimed to help domestic Chinese firms to gain access to international markets and increase their exports by providing a secure environment and standardized management for offshoring Chinese enterprises in a space designed around their needs. As such, the ETCzone program would facilitate "going global in groups" in reference to both the internationalization of Chinese firms and the formation of agglomeration economies in host locations (Brautigam and Xiaoyang 2014; Fei 2017, 841).

The strategic location of the Suez region at the heart of global trade routes granted the SETCzone unique status among other initiatives in the ETCzone program. From the Chinese perspective a Chinese-built zone in Suez would provide access to more than just the domestic Egyptian market, serving as both a headquarters and "gateway" for Chinese companies into both regional and international markets and fulfilling multiple objectives. First is the obvious aim of facilitating the relocation of Chinese manufacturing industries as a means of increasing demand for Chinese manufactured goods in Egypt and other African countries (El-Gohari 2010, 35). As noted in chapter 4, Chinese OFDI to Africa has intensified in recent years, particularly in the strategically located North Africa region. The majority of these investments are concentrated in the energy and construction sectors, with a growing share of investments in manufacturing and services (Darwish, Cairo, 2017). As a Chinese manufacturing and services hub located at the crossroads of the African and Asian continents the SETCzone aims to help speed up this new trend, increasing Chinese investments in manufacturing sector alongside existing investment in the construction and oil and gas sector in Egypt and expanding opportunities in the regional African and Middle Eastern consumer markets (Bing, Cairo, 2018).

To illustrate, in 2008 the top four firms out of a total of 18 firms in the Suez area accounted for 75 percent of investment (El-Gohari 2011, 28). Two of these firms were Chinese construction firms, the Egyptian-Chinese Joint Investment Company, and Egypt's Suez-Chinese Real Estate Development Company. The two construction firms were the fifth and seventh largest Chinese investors in Egypt respectively, totalling $37 million in investments. The other two companies are Majesty International Marble and Granite, with an investment of at the time of $45m; and Chinese Egyptian Oil, worth $34.5 million (El-Gohari 2011, 28). The two construction firms were among the first businesses to locate in the Suez SEZ. But by 2013, 38 companies had signed contracts to move into SETCzone with a total of $1 billion in investments according to both Chinese and Egyptian sources (Bing, Cairo, 2018; Suleiman, Suez, 2018). The majority of these enterprises were manufacturing firms, most of which were small and medium enterprises in the light manufacturing sector.

The sectoral composition of SETCzone firms is consistent with the zone's broader objective of increasing Chinese outward investments in manufacturing, while proximity to regional consumer markets supports the export capacity of these firms. An illustrative example was provided by a senior SETCzone manager on the latter point in an interview for this thesis. A Chinese export company located in the SETCzone was able to reduce the time of transporting shipments to the Sudanese market from 30 days when located in China to one day after relocating to the TEDA zone, allowing the company to save transportation costs and increase output (Samy, Suez, 2018).

Alongside its role as a gateway to regional markets the SETCzone's proximity to the Suez Canal, the world's principle maritime route, has positioned the zone as a 'bridgehead' for Chinese firms to international markets. Owing to the SETCZone's strategic location, Chinese policymakers publicised plans to gradually integrate the SETCzone into the Sokhna deep-water port facility to form a regional and international manufacturing and logistics hub (Chine-Egypt TEDA Suez Economic and Trade Cooperation Zone promotional booklet n.d.). For Chinese companies engaging in trade in the Middle East, but also in transatlantic trade with North American markets, locating production near the Suez Canal significantly reduces the distance to consumer markets, thus saving time, transportation and operational costs associated with long-distance maritime transport. A series of preferential policies directed at Chinese investors further lower production costs, encouraging export firms to relocate into the zone. These selective trade liberalization and investment facilitation measures include regulatory and fiscal incentives, administrative support, tailored infrastructure and a range of other services. Production elements like labour, land, energy and transportation are also made available at a reduced cost.

Perhaps one of the most important strategic advantages of the SETCzone in support of Chinese export capacity is a provision in its regulatory framework that gives foreign exporters access to Egyptian Certificates of Origin (Darwish, Cairo, 2017). These documents permit companies to claim their products as Egyptian, allowing firms to make use of Egypt's preferential trade agreements and international trade deals. Obtaining Egyptian Certificates guarantees the access of Chinese firms to markets in the US, EU, Turkey and other MENA region markets, as well as 29 African nations that Egypt has FTA's with, free of custom duties and other non-tariff barriers (zero customs duties and zero taxes on exports) (Darwish, Cairo, 2017). Egyptian Certificates of Origin also allow Chinese firms to bypass barriers and exceed quotas on exports from China. Such access is crucial for enabling the expansion of China's international trade, rendering the SETCzone a key instrument in supporting China's export policy and core interests in the region and beyond.

Finally, although industrial relocation and cooperation is an important driver of China's Africa zone program and its expanding presence in the continent more broadly, there is a natural resource dimension to Chinese operations in Suez. This insights was conveyed by a senior official at the Egyptian-Chinese Business Council, a public body tasked with bolstering collaboration and dialogue between Egypt and China (Anonymous source (e) Cairo, 2018). The official agreed to be interviewed for this thesis, but requested to remain anonymous to protect their identity. Early research on the SETCzone confirmed this observation, with one author noting that locating to the Suez region provides Chinese firms with access to substantial deposits of coal, metal, gypsum and limescale used by Chinese companies in manufacturing processes related to fertilizer as well and iron, steel and copper (Scott 2013). The SETCzone Investment Attraction Deputy Manager, Michael Samy, further indicated that the Suez area's endowment of glass raw material reserves was an important competitive differentiator for one of the zone's largest investments, fiberglass manufacturer Jushi Egypt, which is also one of the largest fiberglass manufacturers in the Middle East. The presence of raw material has enabled Jushi Egypt to transfer the company's entire fiberglass production chain to the the SETCzone, including industrial mineral mining, raw material processing, production and final processing (Samy, Suez, 2018).

The locational advantages of the Suez region thus make it an attractive destination for relocating Chinese firms. Geographical determinants of competitiveness, such as availability of natural resources, efficiency in sourcing and access to key trade routes and target markets, allow Chinese to achieve greater efficiency in market and hence maximise their returns. Pro-investor policies provide another strong source of competitive advantage. These policies help Chinese firms to capitalise on land, labour and proximity to markets which are all important competitive differentiators in the global economy. These factors, according the Egyptian-Chinese Business Council, motivated efforts to establish a Chinese zone in Suez "at any cost", while providing Egyptian policymakers with leverage to negotiate their own terms in the project (Anonymous source (e) Cairo, 2018).

By 2016 the SETCzone's 1.34 km² starting area had reached full capacity. The zone had succeeded in attracting 32-38 manufacturing enterprises and 32 service-oriented firms drawing \$1 billion in investment (Chine-Egypt TEDA Suez Economic and Trade Cooperation Zone Development Report, 2016). To date, the SETCzone is considered the largest Chinese manufacturing initiative in Egypt and at a capital intensity level of \$700 per square meter, the relative amount of industrial capital it has attracted is higher than in the Chinese Tianjin zone it was modelled after (Bing, Cairo, 2018). The success of the project by Chinese standards has motivated plans for the expansion of the zones production capacity. In 2016 TEDA began the process of laying the infrastructure for a 6km extension expected to accommodate 200 enterprises worth $3 billion in investments (Tianjin Commission of Commerce 2016) (the project was stalled for a number of years but discussions on implementation have since resumed).

In recent years the intersection of the Suez Canal Regional Development Project (SCRCP) with the Belt and Road Initiative (BRI) has further bolstered the SETCzone as a platform of enhanced cooperation, positioning the zone as a flagship for Chinese Egyptian cooperation under the BRI. As a result, the SETCzone was assigned high priority by the Egyptian president and in 2016 the long delayed 6km expansion of the initial 1.34 km² park was announced, providing a renewed boost for the project.

7.1.1. The SETCzone in the context of China's engagement with the Middle East

Located at the crossroads between Africa and Asia, Egypt is a transcontinental gateway to both the African continent on one hand and the Middle East on the other. While China's strategic relationship with Egypt is important in its own right, Egypt is also implicated in the economic, political and geopolitical affairs of these distinct regions. Egypt is a key player in the Horn of Africa in issues of peace, security and the use of the Nile waters, and also strongly connected to the Arab states east of the Red Sea where various powers are competing over their strategic interests in the Middle East and broader Indian Ocean. Its geographic location and stance as a geostrategic heavyweight thus place Egypt in the unique position of being incorporated as a component of China's strategy in Africa, as well as a site of China's planned expansion in the Middle East.

For a comprehensive understanding of the driving mechanisms and repercussions of Sino-Egyptian relations in the SETCzone therefore, it is important to touch on Egypt's significance as a partner in China's relationship with the Middle East alongside its involvement in China's Africa zone program.

The motives of China's engagement with the Middle East differ from those driving its relationship with Africa. Lying at the centre of the oil sources that feed China's growing energy needs, the Middle East has long been of key interest to China's growth objectives due to region's ability to provide large quantities of gas and oil to China. But China's relationship with the region is evolving, and in recent years a strong focus on a number of other sphere's, notably physical infrastructure construction and trade and investment facilitation, has come to define the relationship between China and the Middle East. Significantly, Port-industrial parks have become central to Sino-Middle East cooperation and a key feature of China's relationship to the region.

China began to enhance its engagement with the Middle East in the latter half of the last century, establishing diplomatic relations with all 22 Arab countries in the period between 1956 and 1990 (The State Council PRC 2016). As its economy began to expand rapidly in the 1970's and 1980s following the launch of Deng Xiaoping modernisation programme, China needed access to vital oil supplies and new markets for exports to secure its growth, which led to increasing economic presence in the strategic Middle East. By the 1990's China had established diplomatic relationships with all Arab states and in 2004 established the Chinese-Arab cooperation Forum to deepen cooperation with the region (The State Council PRC 2016). Illustrating the upward trajectory of the relationship, China rose to become the main bilateral trading partner for many countries in the area, with Sino-Middle East trade increasing by 87 percent between 2005 and 2009 (Shahwan 2022). China has also become a valuable source of investment to the Middle East and biggest economic partner for several Arab Gulf states, in particular the regions two largest economies Saudi Arabia and the UAE (a free trade agreement with the GCC is currently under negotiation (Huld 2022)).

The driving force of China's interest in the Middle East continues to be energy cooperation. In 2015 China surpassed the US to become the world's largest importer of crude oil, with the Middle East currently providing almost half of China's oil imports (Lons 2019). Over the past decade however, it has become increasingly clear that energy security is no longer the only force driving China's relations with the region. As a crossroads of international trade routes and sea lanes linking Asia to Africa, Europe and the transatlantic region the Middle East is also a gateway for Chinese investments and products to destination markets. This has motivated new economic connections with non-oil producing countries across the region in recent years, expanding the geographical scope of China's activities in the Middle East. Especially after Xi Jinping launched the Belt and Road Initiative (BRI) in 2013, China's relationship with the region has become much more multifaceted, with Chinese activities in the Middle East expanding to new countries and investment frontiers.

Altogether 21 countries in the Middle East have now joined the BRI, including 18 Arab states (Shahwan 2022). In 2022 Syria signed an MOU on joining the BRI (Al-Monitor) while in the same year Morocco upgraded its participation in the initiative after first joining the BRI in 2017. The agreement with Morocco will promote access to Chinese financing to establish projects in different fields such as industry, energy and technological cooperation, providing an example of the type of mutually beneficial deal that, in theory, will help to increase Chinese export oriented manufacturing in partnering countries and facilitate trade (Devonshire-Ellis 2022).

The emerging cooperation framework between the Arab Middle East and China is outlined in the Arab policy paper issued by the State Council of the People's Republic of China in 2016 (The State Council PRC 2016). The paper identifies key priority areas specifically with regards to Arab collective cooperation with China, and lays out China's proposed initiative for jointly establishing the BRI. The guidance for China-Arab relations under the BRI in this document shifts focus of China's engagement with the Middle East region from the priority of access to energy supplies to increasing cooperation in a host of new areas. While energy cooperation remains at the core of the relationship, physical infrastructure construction and trade and investment facilitation are identified as significant new fields of cooperation between China and its partners. The three high and new tech fields of nuclear energy, space satellites and new energy are identified as "breakthrough" areas, while production capacity cooperation is also listed as an important area of cooperation (The State Council PRC 2016).

This strategy is referred to in the document as Two Wheels and Two Wings. Two wheels refers to cooperation in energy, oil and gas on one hand and low-carbon energy, while two wings calls for enhanced cooperation in infrastructure construction, especially projects that lend themselves to the BRI's goal of connectivity like railway, highway, ports, aviation, power, communications, as well as investment and trade facilitation (The State Council PRC 2016). The Two Wheels Two Wings strategy was further elaborated in the 8th Ministerial Meeting of the China-Arab States Cooperation Forum in Beijing in 2018. Chinese officials discussed cooperation with Arab states on forging "industrial park-port interconnection", referring to plans to construct industrial parks integrated with major ports in the region (The State Council PRC 2016).

Since the plan was announced China's infrastructure construction contracts and investments across the region have increased dramatically. In the first half of 2022 the Middle East had the largest share of BRI engagement than any other BRI participating region, receiving 33 percent of BRI engagement, which includes investments plus construction, and 57 percent of investments (Nedopil 2022, 8). Further, the Middle East's share in total overseas Chinese investments continues to rise despite a decline of BRI outbound direct investment and contraction of Chinese construction worldwide, with investment in the region increasing by an estimated 360 percent and construction rising by 116 percent in 2021 relative to 2020 (Calabrese 2020; House Foreign Affairs GOP) .

Notably however, China's industrial park-port model is a key element of the Two Wheels Two Wings strategy and Sino-Middle East cooperation more broadly. Industrial park-ports are the dominant physical form of the BRI. These infrastructural configurations act as maritime production and trade hubs, combining port developments with investment zones, smart-city infrastructure, and manufacturing and logistics facilities (Calabrese 2022; Lons 2017). The aim of these projects is to promote Chinese connectivity worldwide, facilitating cooperation on investment, trade, industrial capacity promotion and energy among other sectors. Under the BRI China has been building industrial park-ports worldwide in key locations for maritime shipping and trade, such as the Middle East.

Under the Two Wings Two Wheels strategy a number of industrial park-ports are being planned and implemented in the Middle East with the aim of forming an economic chain linking China to the Arab Gulf, Red Sea, Mediterranean Sea and onwards to Europe. The four focal complexes in this initiative form a horseshoe from the Gulf into the Mediterranean sea through the Arabian Sea and the Red Sea. They include Abu Dhabi's Khalifa Industrial Zone, connected to Khalifa Port; Duqm Special Economic Zone Authority (SEZAD) connected to Oman's Duqum port; Saudi Arabia's Jizan port; and Egypt's Suez Economic and Trade Cooperation Zone (SETCzone) connected to the al Sokhna Port in Suez (Ministry of Foreign Affairs PRC 2018; Fulton 2019). The promotion of industrial park-ports is combined with plans to develop the rail networks of the Arabian peninsula and North Africa to enhance the connectivity of these projects.

In Egypt China's Suez Economic and Trade Cooperation Zone (SETCzone) was established in 2008 as a component of the Africa overseas zone program to act as an investment, trade and production hub in that region. As noted the Africa zone program was designed around the aim of channelling Chinese investment into overseas industrial parks that would encourage unbundling China's production chains, forming agglomeration economies in the host locations and boosting Chinese exports globally (Brautigam and Tang 2014; Fei 2017, 841). But since the launch of the BRI the strategically located SETCzone has also been incorporated into China's broader connectivity-driven infrastructure initiative under the Two Wings Two Wheels strategy. Alongside acting as a bridgehead to nearby markets therefore, the SETCzone has gained new significance, as a major node on key shipping and international trade routes passing from China through the Middle East.

As a significantly advanced version of similar projects planned under the Two Wings Two Wheels strategy and a potentially major manufacturing and logistics hub once expansion plans have been completed, the SETCzone provides an important example of how planned industrial park-port projects will develop and their implications for host economies. More importantly, the SETCzone is illustrative of China's multiple objectives in Egypt, which lies at the intersection of two key regions. With plans to integrate the zone with the Sokhna deep-water port facility, the SETCzone will form a strategic regional and international manufacturing and logistics hub (Chine-Egypt TEDA Suez Economic and Trade Cooperation Zone promotional booklet, n.d.). This hub would play a pivotal role in providing commercial and logistics services to Chinese traders and producers, and along with the other planned industrial park-port projects in the region, form key nodes within the plan of the maritime branch of the BRI, linking regional Chinese industrial bases in the Middle East along Chinese shipping lines and international trade routes (Ayyad 2022).

7.1.2. The geopolitics of connectivity in Suez

While Suez has become a major strategic hub for Chinese investments and connectivity, it is important to note that the Suez region is at the forefront of the economic and strategic agendas of a number of Egypt's political and economic allies. Particularly after the political instability that followed the Egyptian revolution of 2011, Suez has featured prominently in the foreign policy approaches of several governments looking to protect their commercial and strategic interests in the region. Over the same period the United States has moved from being an unrivalled hegemon in Egypt to being one of a number of powers operating on the world stage, including China, Russia and the Arab Gulf states. Thus, as various governments are vying to integrate Suez into their expansion strategies, the region has become a stage for growing economic, political and military rivalries, and significantly, a material manifestation of Egypt's increasing pivot East.

What makes Suez an indispensable element of any geostrategic approach is the Suez Canal's centrality to global energy and trade flows. The Suez Canal is located at the crossroads of Europe, Africa and Asia. It is a central geostrategic link between the Mediterranean and the Red seas, while also connecting the Atlantic and Mediterranean to the Indian Ocean (Chorev 2023, 3). A cornerstone of global trade, the Suez Canal handles 12 percent of global trade flows. The Canal is also one of the world's most important chokepoints for oil and liquified natural gas headed to Europe and North America. 10 percent of world oil, and 8 percent of global liquified natural gas flows pass through it. Alongside its commercial significance, navies deploying their forces in the arena of the Arabian Sea, Red Sea and Persian Gulf rely on the canal as a strategic passageway (Chorev 2023, 4).

Consequently, the Suez Canal has long been at the forefront of the West's military and commercial footprint in the Mediterranean and Red seas and the Arabian Gulf (Soliman 2021). For the United States, the Canal is a major geostrategic cornerstone of the country's military strategy and national security interests in the Middle East. Military cooperation with Egypt has allowed US navy ships to get priority pass through the Canal, allowing the US to protect its security interest in the area. In recent years the Canal's significance for trade and maritime security has increased amid Washington's efforts to strengthen its position in the Indo-Pacific "to ensure that the region remains open and accessible and that the region's seas and skies are governed and used according to international" (The White House 2022, 8).

For the UK, France and Germany an active presence in the Red Sea and Mediterranean regions aids in managing political risks, primarily confronting China's enormous political, military and economic power and providing an important transit route for US and European vessels into the Indo-pacific (Soliman 2021).

But alongside stronger security engagement aimed at managing Asia's perceived threats, the Suez Canal also has the potential to act as a key access point for significant new economic opportunities for the United States and Europe by enhancing the West's connectivity with Asia, specifically the Indo-Pacific regions of South Asia, Southeast Asia, East Asia as well as Australia and New Zealand. The Indo-Pacific is home to half the world's people, 40 percent of global GDP and some of the world's fastest-growing economies, and is currently regarded as the world's growth engine (UK Cabinet Office 2021, 66). With the rise of Asian economies, the region is gaining increased economic and political importance, driving European countries to assert their interests by expanding Asian cooperation in the areas of trade, investment and development in a strategic manner (German Federal Foreign Office 2020, 3). As a gateway for trade between the US and Europe on the one hand and Asia on the other, the Suez Canal is a strategic chokepoint for new global trade arrangements in the Indo-Pacific.

The rise of the Indo-Pacific to the forefront of an integrated Western diplomatic, military and security approach has thus reinforced the centrality of the Suez Canal to US and European strategies (German Federal Foreign Office 2020; The Ministry for Europe and Foreign Affairs of the Government of France, n.d. ; UK Cabinet Office 2021). In increasingly multipolar world however, a number of other world players are actively competing to integrate Suez into their geostrategic and geoeconomics visions. Driven by the aim of protecting their commercial interests and supporting the growth of their economies, the Arab Gulf states of the UAE and Saudi Arabia in particular have increased investments in ports and military bases around the Suez Canal in recent years.

After the military takeover of 2013 in Egypt, Saudi Arabia and the UAE supported the Egyptian military-backed government of Abdel Fattah el-Sisi economically and politically. In the following years loans and investments provided by Riyad and Abu Dhabi kept the Egyptian economy afloat amid recurring economic crises, including repeated sharp drops in the local Egyptian currency against the dollar, large foreign debt, food insecurity and a cost of living crisis. In return the Abu Dhabi and Riyad have gained a strong hold in Egyptian ports, infrastructure and real estate, presumably as value assets offered in return for billions invested in the country (Mohnblatt 2023). During this period both governments have extended control over publicly owned shares in relevant state assets in Suez, primarily real estate and infrastructure.

A primary driver of Saudi and UAE engagement in Suez has been the aim of insulating and diversifying the economies of the two Gulf states through investments in infrastructure and other sectors. Economic diversification became and even more pressing concern following a number of external events that revealed the country's vulnerability to economic shock, including the COVID-19 pandemic and the collapse of oil price in April 2020 (Quilliam 2022). Though the extent of what Gulf countries have invested in the Suez thus far is unknown, a sizable portion of such investments are located in the Suez Special Economic Zone and the infrastructure around the Canal and the Gulf of Suez. Saudi Arabia has made large investments in strategic sectors of renewable energy, water and biotechnology (Kandil 2022). Significantly, through its main sovereign wealth fund, the Public Investment Fund (PIF), the Saudi government is moving forward with plans to build the country's flagship NEOM business and industrial zone extending into Jordan and Egypt, among other projects aimed at freeing the country from dependence on oil exports. The zone will link Egypt and Saudi Arabia with the

Gulf of Aqaba in Jordan to form a global hub that connects Asia, Europe and Africa on maritime trade routes that use the Suez Canal (Kandil 2022).

The UAE is principally interested in ports. Port investments in the Red Sea Basin and the Horn of Africa provide an opportunity to diversify into regional logistics, port management and re-export operations (Mansuri 2023). Dubai's DP World, one of the world's largest operators of marine ports and inland cargo terminals, operates the Sokhna Port in Suez, handling maritime traffic into and out of Egypt. A major expansion project in the port completed in 2020 nearly doubled capacity at the port, positioning the DP World-controlled Sokhna port "as a major gateway for Egypt's trade, and the only port in the country capable of handling the largest container ships in the world" (DP World 2019). In 2022 DP World-Sokhna signed with the Egyptian Government-controlled Main Development Company of the Suez Canal Economic Zone to establish a new 300,000-square-metre logistics service zone near the port with expected investments of $80 million (Ahram Online 2022). Additionally, Dubai's Abu Dhabi Ports has signed a number of agreements with the government to develop several projects in ports along the Suez Canal Axis, including in the ports of East Port Said, West Port Said and Al Arish, as well as 30-year concession agreement worth $200 million to develop and operate Egypt's Safaga port (Reuters 2023). Port investments in the Suez Axis have thus provided the UAE with great economic benefits, supporting the internationalisation and further accumulation of Gulf capital and enhancing Gulf geopolitical leverage (Mohnblatt 2023).

Further to the competing strategic objectives of Western and Arab Gulf powers, the Suez Canal is a key element of an emerging Chinese strategic vision aimed at shifting China's geographical focus westwards. China's geopolitical strategy, branded as "March West" centres on enhancing Chinese presence, resources, diplomatic efforts and engagement in Central Asia, South Asia and the Middle East (Sun 2013). Enhancing its political, security and diplomatic engagements with these regions will ultimately serve to secure China's economic interests, facilitating economic and trade cooperation and ensuring the smooth flow of energy supplies and commodities through Eurasia (Sun 2013).

"March West" signals a shift from Beijing's former narrative of neutrality and non-interference, as Beijing's recent activities in the wider Middle East region demonstrate. These activities include concluding partnership agreements with 15 Middle Eastern countries, Chinese participation in anti-piracy and maritime security missions in the Arabian Sea and the Gulf of Aden, and increased Chinese mediation efforts in crises such as those in Syria and Yemen (Lons et al 2019). Additionally, China played a key role in getting Tehran to sign the Iran nuclear deal in 2015, brokered a reconciliation deal between Iran and Saudi Arabia in 2023 and is intensifying efforts to mediate a Palestinian-Israeli peace deal. Thus far however Beijing has kept to a cautious line in strengthening its political and security engagement in the Middle East, limiting its involvement to easing geopolitical tensions in order to secure its own economic interest of promoting Aino-centric trade and connectivity in (Lons et al 2019). At present therefore the central element of China's vision for cooperation in the Middle East remains economic cooperation in energy, infrastructure construction, trade, and investment.

The Suez Canal is at the centre of China's efforts to secure trade and shipping routes through the Middle East. Accordingly, the region has been the target of intensified Chinese diplomatic engagements, human exchange and foreign assistance in recent years. Growing Chinese investments in particular constitute a major tool of Chinese economic statecraft amid Chinese efforts to ensure sea routes for faster connectivity and increased trade (Sun 2013). Thus while there has been a marked increase in the activity of foreign capital in the Suez region in recent years, China has risen to become the largest investor in Egypt's Suez Canal Regional Development Project, which aims to transform the Suez Canal axis into an industrial and logistics hub for European, African and Asian markets (Fouly 2017). China has gained further leverage by acting as an industrial developer in the zone, helping to place infrastructure and promoting land for further investment. Chinese investors have shown greater interest in the Suez Economic Zone than either French, American, Japanese or South Korean businessmen with dozens of Chinese enterprises established in the zone in the past decade (Fouly 2017). Finally, Egypt is positioned to become a major player in the Belt and Road initiative (as discussed in detail in section 5.1) with the potential for further investments that will further enhance China's geopolitical leverage.

It is likely that strategic competition for influence in Suez will continue among rival global powers seeking to leverage the region's connectivity for their own strategic advantage. Having invested more than $80 billion in military and economic aid in Egypt since 1978, the United States in particular remains a strong ally to Egypt, wielding considerable influence on Egypt's external relations. And yet a number of factors strengthen China's potential to challenge the US-dominated regional order in Egypt and the Middle East more broadly. Chief among them are Washington's repeated halted delivery of military equipment to Egypt, cuts to military aid, the lack of a cohesive approach that takes into consideration the Egyptian military regime's developmental needs, and Washington's apparent retreat from the Middle East versus its pivot towards Asia (Soliman 2021, Sun 2013). Meanwhile steady cash flows in infrastructure and investments are likely enhance China's already robust political and economic ties with Egypt granting China strategic leverage over the United States. Amid competing projects in Suez therefore, Egypt's evolving strategic partnerships with China and the Arab gulf will repercussions for the country's economic future as well as the balance of power in the Middle East region as a whole.

7.2. Assembling the Chinese-Egyptian SETCzone

An empirically informed analysis of two areas of policymaking in this section will demonstrate how the implementation of China's overseas zone initiatives cannot be considered separately from the relational, technopolitical dynamics at the point of production that construct the architecture of circulation and enact global markets. The analysis will trace the processes of translating the two key policy frameworks of infrastructure development and land governance, identified in chapters 3 and 5 as forming the foundation of a GVC/GPN oriented spatial planning agenda. In outlining the dynamics of policy translation, this section sheds light on the complex, negotiated process of assembling the SETCzone as a global space. Particular attention is given to the geographically specific actor strategies and trends implicated in the zone's construction, those associated with Chinese planners seeking to establish an enabling environment for Chinese firms in the Suez Canal region, as well as Egyptian military/state actors looking to consolidate power by implementing national development megaprojects while generating opportunities for rent-seeking along the way.

7.2.1. Infrastructure development:

The SETCzone's mode of delivery reflects a universally-circulated model of developer-financed export-oriented zones, where international public or private entities mobilise resources to provide tailored facilities for offshoring companies in order to accelerate cross-border production and trade (see chapters 3). This model is reflected across China's ETCzones program. In each of the Africa ETCzones contracted developers have provided the financial and capacity-building resources needed to complete zone initiatives successfully and to enable industrial relocation by Chinese firms. At the same time infrastructure provision in China's ETCzones follows a unique Chinese model of centrally-planned but regionally-financed, developed and operated overseas economic zones (See chapter 5). Cross-border regional cooperation is a strategy rooted in a domestic Chinese Special Economic Zone institutional system where subnational regional actors take the lead on expanding fixed asset investments.

But while evidence suggests a common model of engagement across multiple zone programs, there is no single policy framework for overseas ETCzones, either in terms of sectoral specialisation, end-markets, and preferential policies or in terms of infrastructure and land provision. In a complex world, financing arrangements differ on a zone by zone basis, as developers adapt and assimilate domestic norms and practices into their strategies.
In Egypt, the SETCzone's launch built upon an earlier agreement between the Chinese and Egyptian governments to establish a Chinese style SEZ in Suez. According to the 1998 agreement, the Chinese SEZ developer was required to partner with an Egyptian state-owned developing company to establish a zone in Suez. The latter would use land as their share of the investment and a joint real estate company would develop the land (Brautigam and Xiaoyang 2011b, 75). This arrangement was due to restrictions on foreign ownership on land, and would allow the Egyptian partners to secure ongoing rents. In the early 2000s Tianjin-TEDA entered into a partnership with MDC to develop the zone on land owned by MDC, which Tianjin TEDA eventually broke off to gain more independence in developing and operating the Chinese-Egyptian cooperation area. As discussed, TEDA went on to buy 1.34 km² from the Egyptian Chinese Company for Investment (ECCI) a consortium of Egyptian banks and SOEs formed in 2000 and licensed by the Egyptian government as a second SCzone main developer alongside MDC, and which also includes Tianjin-TEDA among its shareholders (owning 10 percent of shares). The other shareholders in ECCI are the SCzone authority (the national entity that is responsible for regulating the SCzone), construction giant Arab contractors, Banque Misr and National Investment Bank (The Egyptian Chinese J.V. Company for Investment, n.d.).

In 2006 the Chinese Ministry of Commerce (MOFCOM) delegated the development and operation of the SETCzone to industrial zone developing company Tianjin-TEDA, a subsidiary of the Tianjin municipal government in China, as its implementing partner. After TEDA's proposed SETCzone won the Chinese MOFCOM Tender, TEDA established Egypt-TEDA as a joint venture with ECCI in 2008, and as an overseas country-based affiliate of Tianjin-TEDA tasked with financing, developing and operating the SETCzone. Chinese ownership accounted for 80 percent percent of Egypt-TEDA, while the active interests of the Egyptian partners accounted for the rest, effectively rendering the zone a Chinese run project with a small participatory stake by Egyptian state actors (Anonymous source (e) Cairo, 2018).

From its inception the aim was for the SETCzone to eventually operate independently of central Chinese government support, reflecting an emergent trend in China's overseas initiatives of decentralising state power to subnational regional, provincial and municipal authorities (Brautigam and Xiaoyang 2011b, 82). The practice of fiscal and administrative decentralisation was inscribed in the main criteria set by the Chinese central government in selecting overseas zone developers. The criteria required proof of financing capacity by the developer and a proven track record in implementing a major construction engineering project as a means of ensuring independence from the central state.

Thus the initial investment in the SETCzone was made by Tianjin-TEDA using its own capital, highlighting the central role of Chinese regions in planning and realising China's internationalisation. Tianjin-TEDA provided the seed money for the project, though Egypt-TEDA took on construction of the zone's internal networks, infrastructure, buildings and roads, and the provision of services like sanitation and utilities (Sameh, Cairo, 2018). Construction was undertaken through Public-Private Partnerships (PPPs) and Build-Operate-Transfer (BOTs) contractual arrangement (El-Gohari 2010, 25; GOPP-MDC 2016). Additional sources of finance were later made available by Chinese central government bodies to ensure the successful implementation of economic zones (see details on Tianjin-TEDA's agreement with CADFund below). Nevertheless the central Chinese government expected Tianjin-TEDA to generate enough revenue to support the development phase—the physical build-up of zones, including infrastructure, warehousing facilities, administrative buildings and housing as well as future expansions. To ensure sustainability Egypt-TEDA later developed its own business model for generating returns to improve its capacity for self-financing and future growth, one based on the strategy of developing for profit (Emad, Suez, 2018).

An important source of Egypt-TEDA's revenue came from selling developed land originally obtained at below market cost by ECCI (a process facilitated by low-cost finance to companies offered by Chinese state owned policy banks China Development Bank and China Eximbank and venture capital instruments like CADFund (Brautigam and Xiaoyang 2011b, 82)). Further income was generated from leasing warehouses to on-site industries. Finally, an on-site comprehensive commercial services centre, which includes commercial and residential units (rented to workers inside and outside the zone), office buildings leisure facilities and a hotel (owned by Egypt-TEDA but managed by hotel company Swiss Inn), continues to provide an additional source of revenue, while helping to increase the zone's ability to function independently of its local setting. The earnings received by the developer are used to cover the SETCzone's running costs or reinvested for further land exploitation (Emad, Suez, 2018).

While the SETCzone mobilised multiple and diverse agendas, it was through the centrally coordinated action of the Chinese state that the assemblage of actors involved in implementing the project was consolidated and stabilised. Central state agencies used financial and political resources to align multiple actors around strategic objectives situated at the national level, and driven by political-economic concerns of rebalancing China's economy outwards and solving its crisis of overaccumulation. This includes equity financing and support to the operator once construction began. In 2008 the China Africa Development Fund (CADfund), a venture capital instrument of the central government of China, signed an agreement with Tianjin-TEDA to invest in the zone. CADFund was set up by the state owned China Development Bank under China's Going Global program with a focus on developing industrial parks in Africa and implementing government policy. CADFund's, decision to invest in Egypt-TEDA resulted in the creation of new company called China-Africa TEDA Investment Co. Ltd. (China-Africa TEDA). The newly formed China-Africa TEDA took over the 75 percent shares previously held by Tianjin-TEDA, with Tianjin-TEDA holding 60 percent and CADFund holding 40 percent of these shares. Thus, together, CADFund and Tianjin-TEDA control 75 percent of Egypt-TEDA's shares, 20 percent are owned by ECCI and a further 5 percent is owned by a company controlled by Tianjin-TEDA called Tianjin International TEDA Suez company.

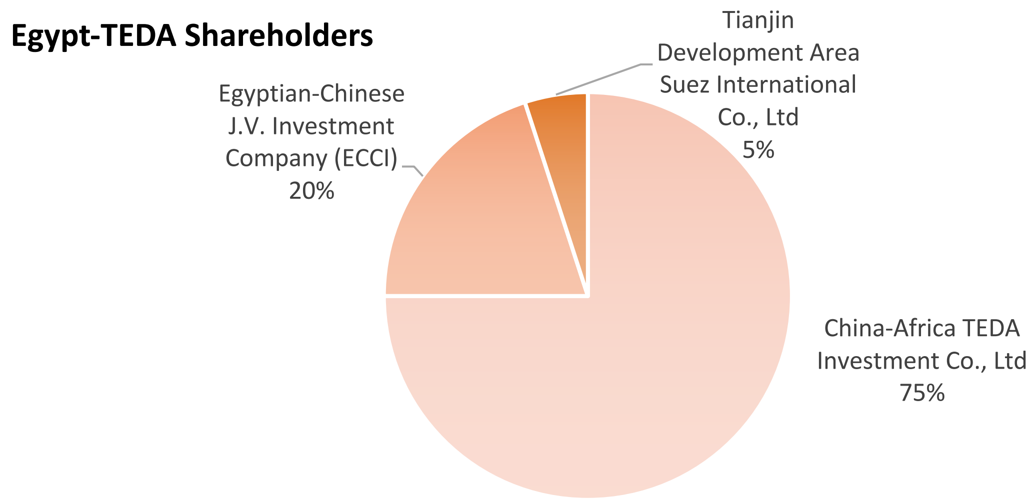

Figure 7.2. Egypt-TEDA shareholders

Additional sources of monetary support provided by the central Chinese government include assistance from the Chinese Ministry of Commerce to subsidise preconstruction and implementation costs, and subsidies issued by the Ministry of Finance (Scott 2013, 7). The SETCzone also receives political backing from the Ministry of Foreign Affairs, the Ministry of Commerce and the Chinese embassy in Egypt, particularly on import and export matters such as export clearance time when it is lengthy and affects production (Bing, Cairo, 2018). Despite a degree of financial independence, without these sources of support the SETCzone would not have been built according to the Chinese Ministerial Counsellor For Economic and Commercial Affairs in Egypt, Han Bing (Bing, Cairo, 2018).

In addition to financing the zone's developer, the Chinese central government provides extensive support to financially profitable enterprises located in the zone through banks and special funds. CADFund exerts its influence by targeting specific industries for Chinese investments. Low-cost finance and equity participation is offered to firms by Chinese policy banks such as China Development Bank and Eximbank. Firms also receive funding from the Tianjin regional government. The Tianjin municipality heads a leadership panel for the SETCzone, under which the Tianjin municipal State-owned Assets Supervision and Administration Commission promotes SOEs to invest in the zone, and the Agriculture Committee and the Construction Committee promote investment by agricultural enterprises and construction materials firms (Brautigam and Xiaoyang 2011b, 88). Other support offered to relocating firms includes subsidies, rebates, finance, and equity participation in productive investments. These sources of support have helped enterprises extract greater profit while also ensuring that occupancy in the zone is almost exclusively Chinese by increasing participation rates early on. Despite the zone being open to domestic and foreign investors alike, with the exception of three joint ventures established with Egyptian SOEs all the firms that have located in the zone are Chinese invested.

To summarise, central government support to regional zone operator TEDA and relocating Chinese firms illustrates the steering role of the Chinese state in constructing overseas ETCzone initiatives, as well as the labour of aligning a range of diverse actors around the SETCzone to ensure its success

Significantly, the dynamics of infrastructure construction in the SETCzone reveal the ways in domestic actors have been mobilised around the objective of constructing the zone, driven by their unique and selective interests. The majority of capital investment in the zone was taken on by Egypt-TEDA, which received funds from central and municipal government sources and was responsible for financing the construction of on-site infrastructure in the zone. Meanwhile, having provided the land ECCI receives a portion of the profits from its sale according to its share of the original investment (once profits were reimbursed to the Egyptian party the land belonged to the investor, depriving the Egyptian party of optimum rent, a situation remedied in the 2015 SEZ law amendment with the implementation of the usufruct system (Law no. 27 of 2015, 2015)). Alongside land rents the Egyptian main developers further act as contract partners with the role of partially implementing development projects for the foreign investor. These partnerships entail the provision of external infrastructure and basic services such as extending water, electricity and power lines, and gas (MDC Company Profile n.d.). MDC's mandate allowed it to extend services to the borders of TEDA's 1.34 km² plot while ECCI took on the development of basic infrastructure in the extension area (Sameh, Cairo, 2018)

Though not directly active in the SETCzone itself at the time, various military companies won infrastructure contracts to develop the North-West Suez Canal region for future Chinese and other foreign investments. In 2002, for example, when TEDA acquired land in the SEZone the National Company for Roads Building and Development, a company of the Defence Ministry-run conglomerate the National Service Project Organization (NSPO), constructed the Cairo-Ain Sokhna highway across the 110km stretch of Egypt's Eastern desert to connect the nascent industrial zone in Suez with the capital, Cairo (NSPO n.d.). As noted earlier the EAF's political takeover in 2013 led to the consolidation of new networks and hierarchies in Egypt's political economy concomitant with the consolidation of a GVC-oriented-oriented development agenda. The announcement of the Suez Canal Regional Development Project (SCRDP) in 2015 has since provided numerous new opportunities for the EAF, its institutions and companies to undertake or manage public works contracts in the area surrounding the SETCzone.

Overall, however, heavy capital expenditure by the Chinese regional Tianjin authority backed by extensive support from the central Chinese government, coupled with the absence of a significant role by the Egyptian partner in bringing in capital granted Chinese interests monopoly over planning, management and investment promotion in the Chinese-Egyptian zone. This dynamic has allowed the zone to operate independently of its local setting, developing as an exclusionary node of value creation integrated into Chinese economic circuits and segregated from the host economy.

7.2.2. Land governance: Incentive structure and land-use planning

The second zone-based policy framework examined is that of land governance. Egypt's SEZ regime differs significantly from other zone regimes in the country, adopting a governance framework that complies with contemporary international best practice for Special Economic Zone governance. Compared to other investment regimes in Egypt, the Suez Canal Economic Zone (SCzone), in which the SETCzone is embedded, provides a higher degree of institutional and regulatory insularity. This autonomy enables the implementation of a parallel legal and regulatory regime that bypasses established rules and procedures of the national system and offers greater privileges and guarantees tailored to the needs of investors. The national entity responsible for governing the zone as well as regulating and facilitating its development, the

SCzone authority, also enjoys a great degree of independence in formulating its own rules and regulations to ensure investor demands are met (OECD 2022, 13).

Understanding how the SETCzone's governance structure and institutional authority operate is key to understanding how decisions on land governance are made, and who stands to benefit from the resulting arrangements. As noted in chapter 6, the General authority of the Suez Canal Economic Zone (SCzone authority) is the body exclusively responsible for the regulation and management of the SCzone. The SCzone authority is anchored in the highest possible level of government, the Egyptian cabinet. The authority claims to operate independently of national bureaucracies, institutions and laws. As a government body however the SCzone authority draws on the legal authority and tools inherent to the government's sovereign control over regulation to implement a new regime that bypasses established rules and procedures of the national system. In addition to overseeing the areas development and implementing the regulation applied within the zone such as providing services to investors, the SCzone authority is mandated to introduce its own regulations to facilitate investment attraction.

Domestic government influence over the SCzone authority is consistent with global norms, where state authorities play an active role in facilitating integration into global markets. This dynamic illustrates the push and pull factors between liberal-oriented planning and a state-led SEZ governance framework in the SCzone and in contemporary development more broadly. Government authority over the SCzone's governance has also allowed key military players in the state bureaucracy, including the Ministry of Defence and the military-run Suez Canal Authority, to dominate decision-making in the SCzone authority by infiltrating the authority's governing body, its Board of Directors.

The SCzone authority's Board of Directors (BOD) is the central constituent of the SCzone's institutional framework. The BOD oversees the management of the zone and enforces relevant rules and regulations. It is responsible for handling matters relating to approval, registration, licencing and incorporation procedures of new projects and other investor services, streamlining procedures for investment through a one-stop-shop (a single point that combines all government agencies to facilitate government procedures). The BOD is also authorized to create a special customs and tax administration system with the approval of the minister of finance, and to facilitate customs procedures (Emad, Suez, 2018). Further, the BOD is also tasked with effectively managing incentives, including developing policies for investors.

According to the 2002 SEZ law, the BOD is established through a decree from the Prime Minister and overseen by a chairman appointed directly by the president (Law No. 83 of 2002 on Economic Zones of a Special Nature, 2002). The amended 2015 SEZ Law updated the composition of the Board to include the chairman, deputy chairmen, and nine other members including four members representing ministries and governorates of the Suez Canal, among them a representative from the Ministry of Defence, and financial and legal experts (Law no. 27 of 2015, 2015). An interview the zone's former chairman revealed however that all government ministries are represented on the Board except four: the Ministries of Finance, Defence, Justice and Interior (Darwish, Cairo, 2017). These are the four cabinet ministries that have the greatest influence over national affairs in Egypt. The decision to exclude them from the BOD was made at a higher level of government in order to afford these "sovereign" cabinet ministries the ability to veto BOD decisions if they disapprove of them (Emad, Suez, 2018). Thus while the board is composed almost entirely of high-ranking government officials, ultimate decision-making authority remains at the highest level of the state represented by these four ministries.

The Finance and Defence ministries in particular were placed in a unique position compared to other state ministries on matters that range from the zone's legislative and institutional framework to discussions with developers and investors (Emad, Suez, 2018). The appointment of Suez Canal Authority (SCA) head Admiral Mohab Mamish as Chairman of the SCzone in 2016 further concentrated power in the hands of the military branch of the state bureaucracy. Mamish's appointment afforded the EAF greater influence over investment-related decision-making, greater flexibly in applying rules and regulations without the risk of generating conflict, and a greater role in administering the development of the Suez region (Anonymous source (d), Cairo, 2017). The SETCzone's policy framework thus enabled the articulation of the imperatives of emergent actors aligned around its vision.

The following discussion examines the translation of two particular land governance mechanisms implemented to grant the zone greater economic and managerial autonomy and enhance its integration into global economic circuits (see chapter 3) in the context of militarised SCzone governance. The first is creating an investment-related incentive structure and the second is land-use planning. These mechanisms regulate changes in land-use in the SETCzone, delivering on the international competitiveness of the location and making it available for international investment, a process that goes hand in hand with the intensified commercialisation of public land and the militarisation of development in the Suez region.

Incentives for Chinese investors

The first land governance mechanism used to regulate changes in land use in the SETCzone is the zone's incentive structure. The incentives and guarantees offered in the SCzone are specified in Egypt's Special Economic Zone law, which established the geographically-focused regulatory regime implemented in the SETCzone to render land investible for Chinese firm actors (Law No. 83 of 2002 on Economic Zones of a Special Nature, 2002). The incentives offered include tax and customs exemptions; flexible labour regulations; subsidised fuel; protection against nationalisation, sequestration, freezing of assets or confiscation; and ease of access to international markets using Egyptian Certificates of Origin. For Chinese companies based in the SETCzone, the Suez SEZ's standard incentive structure meets their specified needs by providing guaranteed access to domestic, regional and international markets at costs that are much lower than those incurred when producing and exporting from China. Production elements like land and labour as well as energy and transportation are made available to investors at a reduced cost (China-Egypt TEDA 2016). Fuel prices are fixed at rates far beneath those in China and are even lower than the special rates offered to investors outside the zone (Total 2018). Egypt's tax burden cost approximately half of China's according to comprehensive statistics (China-Egypt TEDA 2016).

In addition to specified preferential policies, the BOD is allocated the power and mandate to grant specific incentives on a discretionary basis, which involves coordinating with actors at various levels to ensure rules and regulations are more adaptable to the requirements of investors on one hand, while meeting the needs of Egyptian stakeholders on the other. Since the SETCzone was established, Egyptian government actors have sought to ensure that privileges offered to investors are leveraged to increase the value of income generated from the activity of Chinese firms located in the zone. In the post-2013 years, the gradual shift in the balance of power in favour of the EAF brought new interests to the table, and the zone's flexible governance structure provided a suitable institutional framework to negotiate new agreements.

The SETCzone's policy framework thus enabled the articulation of multiple and emergent imperatives aligned around the zone's objective.

One area the Egyptian government actors have used to their advantage with the aim of generating new income streams is tax policy. The zone's special customs and tax administration system is created with the approval of the Finance Minister as a way to ensure the government's ability to override the zone's institutional authority on decisions pertaining to the tax rate. The SETCzone custom and tax regulation initially stipulated a tax rate of 10 percent on net income compared to over 20 percent outside the zone (exemptions from customs duties apply). Around 2016 the minister of Finance (his Ministry being one of the four sovereign ministries with veto power over the BOD's decisions) unilaterally mandated an increase in tax rate to 22.5 percent (Emad, Suez, 2018). The zone's former Chairman argued in an interview for this thesis that the tax rate amendment further aligned the zone's incentive structure with international SEZ norms of decreasing differentiated treatment with respect to tax incentives, while improving the broader business climate for investors by lowering import and export barriers (Darwish, Cairo, 2017). The logic behind the tax rate increase was to reduce the incentives gap between the special regime and the broader economy to enable competition between firms inside and outside the zone. Zone managers confirmed that the Minister of Finance justified his decision by claiming that inland industries would begin relocating to the SCzone if a lower tax rate was upheld (Emad, Suez, 2018). But there are a number of reasons to doubt the minister's justification.

First, it was implausible to assume that companies producing for the local market would relocate to the zone, where sales to the domestic market are treated as exports and subject to taxes and customs. Second, the tax regulation was changed without the approval of concerned Ministries including the Ministries of Investment and Industry, and disregarding their advice on how best to leverage tax policy (primarily by following the Chinese example that taxes should be reintroduced gradually) (Bing, Cairo, 2018; Emad, Suez, 2018). Finally, the initial tax rate was a significant incentive for Chinese investors, who were encouraged by Tianjin-TEDA to locate in the zone partly to take advantage of the low tax rates. The decision to increase taxes eroded trust with the Chinese developer, possibly contributing to the postponement of plans to expand the zone.

An alternative explanation to the official narrative is that the SCzone initial rate was to the detriment of the revenues of the sales tax authority. The proceeds from taxes are not reinvested in the development of the zone but directly accrued by the state in the form of rents. It appears that relevant authorities realised that they stood to miss out on a major source of rents if tax rates stood at lower rates. Similar observations can be made elsewhere where central government actors imposed their own terms in direct negotiations with Chinese partners over incentives to secure direct revenue. This includes introducing the usufruct system in the zone's 6 km^2 planned expansion where industrial land can be leased from the SCzone authority for a 45-year renewable period in return for an annual payment (Suleiman, Suez, 2018). When the SETCzone was first established the Suez governorate had transferred the assigned 1.34 km^2 starting area to the developer, Egypt-TEDA, who would then service the area and sell land parcels to Chinese investors, depriving the SCzone authority of optimum rent on prime land (Suleiman, Suez, 2018). Conversely, the usufruct system will allow the SEZ authority to generate a continuous stream of income from leasing public land while asserting the authority and legitimacy of the sovereign Egyptian state.

In other cases Egyptian authorities used the zone's incentive structure as leverage in political negotiations that appeared to have nothing to do with the SETCzone. One example is when Egyptian customs authorities took over a year to release important fiberglass manufacturing parts belonging to Chinese manufacturer Jushi Egypt that had been sent for repairs in China (Bing, Cairo, 2018). An Egyptian economist and investor interviewed for this thesis believes that the cause for the delay was an attempt by the EAF to place pressure on the Chinese government following a disagreement over the financial terms of a Chinese loan to develop part of the New Administrative Capital megaproject launched by the Egyptian president in 2015 (Shenety, Cairo, 2018).

But while seeking to leverage the zone's locational benefits for maximum returns and advantages, the SCzone's board also used its mandate to compensate and appease investors by bending regulation in their favour. One example is waiving the quota of Chinese exports to the domestic market, set by the SEZ law at 10 percent (see chapter 8). Another is an agreement reached between Chinese fiberglass company Jushi Egypt and the SCzone authority to waive a 10 percent foreign employee quota, increasing the number of Chinese employees to 16 percent of the company's payroll in lieu of training local employees (according to the zone's former Chairman the agreement was never implemented (Darwish, Cairo, 2017), though zone employees suggested otherwise).

Broadly speaking while Egyptian authorities may use less critical policies such as red tape, tax administration, subsidized utilities and rental rates to increase their own leverage, "core" policies remain untouched at the risk of triggering an outflow of Chinese investments. The latter include standard free zone incentives, such as duty-free imports of raw material and intermediate goods needed for production; access to the domestic market without export performance requirements; dispute settlement and a single point authority for investor services; and most importantly access to Egyptian certificates of origin allows Chinese exporters to make use of Egypt's international trade deal.

The EAF's influence on matters relating to the zone's incentive structure has been practiced indirectly through the BOD as well as directly through high level talks. Screening of foreign investments (decisions on the licencing of new projects) a task of the BOD, was often conducted directly between Egypt-TEDA, acting as a conduit for the Chinese government, and the head of SCA, bypassing the zone's Chairman and only requesting nominal approval Darwish, Cairo, 2017). Using its clout SCA extended preferential treatment to investors handpicked and presented to it by the Chinese government through negotiations that exclude the BOD (Darwish, Cairo, 2017). As noted earlier, in 2016 the EAF's authority over the SCZone was formalised when the Egypt's president removed the SCzone's civilian chairman and replaced him with former navy commander and head of the SCA, Admiral Mohab Mamish.

It is not clear what the terms of agreement were for the deals negotiated directly by SCA, what new preferential policies were extended to Chinese investors as a result, and what gains accrued to the SCA authority. What is evident however is the replication in the SCzone of a wider governance system in which military bureaucrats are able to dominate national projects by controlling the civilian state apparatus (officially SCA is a regional and port authority). Formally shifting authority over the SCzone to the military-led SCA in 2016 only consolidated the EAF's role in administering the Suez region's development and capacity to extend preferential treatment to investors selected by its members. This has not been to the detriment, but has in fact has enhanced state-to-state cooperation in the SETCzone according to a Chinese source (Bing, Cairo, 2018). One Chinese official directly involved in high-level discussions with Egyptian officials has lauded the strong support offered by Admiral Mamish himself to the SETCzone, affirming the enabling role of the EAF in generating and supporting foreign investments through negotiated, though opaque and likely uneven agreements (Bing, Cairo, 2018).

Land-use planning

Land-use planning is a second land governance mechanism used to create a suitable environment for the operation of relocating industrial enterprises in the SETCzone. Land planning is the process of designating and allocating land resources for development purposes. Land planning involves matters that range from acquisition and planning of land development, to sectoral targeting and outlining the location and type of activity within the zone site. More than simply a conceptual layout to guide the zone's physical development, land planning is integral to changing who has the right to own and use land, enabling integration into new economic circuits and justifying exclusion on the basis that land should be put to profitable use.

Once more, the process of transferring and translating land-use policies enrolled both Chinese planning authorities looking to establish a functionally autonomous enclave for Chinese industry in the Canal area, and Egyptian state entities looking to implement national objectives while generating opportunities for rent-seeking at the same time.

Land designation and acquisition

The initial process of obtaining the land needed to develop the SETCzone shows how processes of negotiation, conflict and alignment that occurred between the constitutive components of the policy assemblage during its emergence allowed the assemblage to cohere around the objective of establishing the zone. As noted in section 7.2.1. of this chapter, Egyptian-Chinese talks to establish an industrial zone in the underutilised but highly strategic Suez region began in the mid to late 1990's but picked up speed after the launch of the SEZone in 2002. As executive arm of the SEZone authority, government licenced developer MDC owned the 20.1 2km of land the zone was established on, but was only responsible for managing 14 km after finalising an agreement with Tianjin TEDA Investment Holding on the allocation of 6 km² to the Chinese developer (Daily News Egypt 2014). The initial development plan for a Chinese industrial estate in Suez was created by MDC and the vision outlined in MDC's masterplan aligned with the strategic objectives of Egypt's export development vision, objectives based on the country's comparative advantage.

When TEDA was brought on to assist in constructing the zone it came in as a minority shareholder. TEDA soon realised it would be unable to implement its desired plans in the MDC-controlled area, and subsequently pulled out of the agreement to participate in the establishment of the SEZone in sector 4 of the North-West of Suez industrial zone. TEDA then obtained a separate 1.34 km² of land in the third sector held by ECCI where it could operate on its own while continuing to control the 6 km² in the area designated by MDC (Suleiman, Suez, 2018). Due to restrictions on land ownership by foreign developers (but not by FDI invested companies), however, licenced developer ECCI was brought on as local partner, providing the land as its share of the investment in the joint venture real estate company Egypt-TEDA (Suleiman, Suez, 2018) (the process of registering the land was still lengthy and opaque, according to the Commercial Counsellor at the Chinese embassy, due to required security procedures overseen by EAF entities (Bing, Cairo, 2018)). ECCI owned only a small participatory stake in the venture, but was able to benefit from acquiring and providing public land to the developer at a very low cost, as discussed.

When the SETCzone was announced in 2006 the "real value" of the land licensed for economic development was assigned at $10 per m2, a price well below its worth to investors (Scott 2013, 27). Because the land was undeveloped it had not acquired a clear market value, and the fact that it needed to be exploited from scratch further brought down both its price and the income derived from its sale. Nevertheless, in the eyes of Egyptian officials, being able to provide strategic land at a low cost to the developer was in and of itself enough to increase ECCI's bargaining power and justified profiteering by various state entities enrolled in the policy process (a senior official at the Egyptian-Chinese Business Council, a public body tasked with bolstering collaboration and dialogue between Egypt and China, even indicated in an interview that the land was offered for free) (Anonymous source (e) Cairo, 2018). The sale of developed land included a transfer fee to the Suez governorate - TEDA deducted its own takings then paid the governorate (Scott 2013, 27). ECCI received a portion of TEDA's profits from the sale of developed land according to its share of the investment, and gained privileged access to basic infrastructure projects in the zone as a result of the partnership. As the overseer and regulator of the project SCzone Authority was "gifted" a headquarters building by Egypt-TEDA located inside the SETCzone as part of the agreement to establish the site. These arrangements highlighting the range of state entities that were able to reap benefits and generate rent from the sale of cheap land in Suez.

Masterplanning

Once land acquisition procedures were finalised, the next step was to create a land-use development plan for a Chinese zone in Suez. An initial zone development plan was overseen by a committee of representatives from the central and regional (Tianjin) governments, including the Chinese Ministry of Foreign Trade and Economic Cooperation, the Chinese State Economic and Trade Commission, and the Tianjin Municipal Government (Scott 2013, 26). After Tianjin-TEDA won the Chinese MOFCOM tender to develop an overseas ETCzone in Suez the masterplan revealed was based on the earlier plan, which was for a large-scale multi-functional zone capable of operating independently of its surrounding environment. The zone's integrated design is central to the developers vision, which is animated by the strategic policy objective of building overseas bases to support the relocation of Chinese firms offshore.

Accordingly, the Suez zone's spatial plan emphasised an environment suitable for employee life while providing the critical infrastructure and services to facilitate export-oriented manufacturing. The zone's layout combines residential, commercial and industrial activity alongside critical infrastructure to enhance its physical and strategic connectivity, like ports, transportation networks, logistical services and communications infrastructure. The main production area includes an Small and Medium Enterprise (SME) park composed of eight hangars sized at approximately 4000 square meters each, where SME's can buy or lease a ready-built plant, while across different locations in the site number of large-scale industrial megaprojects operate independently. The zone also includes a comprehensive commercial services centre with two banks, restaurants, barbers and supermarkets, and office buildings providing units for rent to businesses in the zone. The zone's residential area contains 200 units for employees from within and outside the zone. There are also a number of on-site sports and leisure facilities, including at least two amusement parks and a seven-floor four-star hotel. Finally a public services area located in the SETCzone includes shipping lines and custom clearance, serving the site and the SCzone as a whole (Emad, Suez, 2018; Suleiman, Suez, 2018).

Industrial planning

According to the former manager of the SCzone Main Development Company (MDC), Sherif Sameh, the SCzone licensed main developer was tasked with providing external infrastructure and services in the SETCzone's starting area. But as the SETCzone main developer, Egypt-TEDA, was exclusively responsible for both the physical build-up of the zone and for attracting investors and 'end users'- factories that would construct their own facilities (Sameh, Cairo, 2018). The SETCzone's industrial plan determined what type of investors would be targeted to relocate to the zone. The zone's industrial plan was provided by regional developer Tianjin-TEDA and was based on a market assessment that determined sector priorities which emphasised achieving greater efficiency and maximising profit in export markets for Chinese regional firms (see chapter 8).

Industrial planning in the zone appears to emphasise the strategic coupling of overseas Chinese production bases with value chains anchored by lead firms in China. This strategy, discussed in detail in chapter 8, is underpinned by the aim of deepening the global economic integration of China's regions. But it also appears to be linked to a broader imperative by Chinese lead firms to retain control of all stages of labour-intensive manufacturing chains rather than outsourcing operations to domestic firms. As argued in the next chapter, the vertical integration of Chinese value chains leaves minimal opportunity for engagement between relocating Chinese firms and the local industrial base.

Based on the empirical evidence provided, a key finding of this chapter is that the infrastructure provision and land governance mechanisms employed in the SETCzone allow the zone to enjoy greater spatial, economic and managerial autonomy, enhancing its territorial separation while reflecting a core emphasis on increased integration into Chinese economic circuits. The SETCzone's spatial planning appears to be centred around the ideas of allowing Chinese firms to retain control of all stages of the value-adding process rather than engage or disaggregate production to local suppliers, justifying the zone's enclave structure. A model of engagement that sets the zone up to function independently of its local setting deliberately decreases the capacity of national-level institutions to intervene in its operations, support the transfer of know-how and develop beneficial global linkages. Excluding domestic institutions while enhancing the decision-making capacity of lead Chinese firms leaves few opportunities for firm-relations to upgrade manufacturing and build productive capacity (Anonymous source (e) Cairo, 2018).

But at the same time by unpacking the relational dynamics of translating China's transferable zone model, the analysis recognises the role of the domestic forces and modes of practice implicated in China's overseas development zones, accounting for the agency practiced by partner governments mobilised around the zone program to secure their own political and economic agendas. This highlights 'variegated internationalisation trends' in China's overseas economic zones and broader global engagements (Sun el at 2022). Such engagements, as authors have noted are geopolitically complex, where on one hand overseas initiatives seek to accommodate the capitalist imperatives shaping China's own trajectory, but on the other hand adapt their approach to domestic conditions and modes of practice. A common theme within these engagements however is that projects are secured at the elite political level, bypassing established forms of governance and remaining spatially enclaved with limited developmental impacts in the host economy (Mohan and Tan-Mullins 2019).

The SETCzone's policy framework thus enabled the articulation of multiple and emergent imperatives mobilised around the zone program, allowing a range of actors to advance their own political and economic agendas. Specifically, Egyptian-Chinese cooperation in the SETCzone has provided significant opportunities for a range of domestic stakeholders enrolled in the project to capture new income streams. Tracing the interactive and negotiated process of translating zoning following the capture of state power by the Egyptian Armed Forces reveals that Egyptian-Chinese zone cooperation has provided the EAF with lucrative opportunities for accumulation, intensifying a pre-existing trend of generating rents from the commercialisation of public land in the Suez region. China's objectives in the SETCzone have therefore intersected with a military economic strategy of land commercialisation, enhancing the domestic and international legitimacy of Egypt's military-backed government and consolidating its grip on power by expanding the EAF's role in international business and trade. This alignment has rendered both land-commercialisation and the militarisation of development as emergent features of China's economic zone policy transfers. These emergent trends are constitutive of the landscape of economic globalisation in the context of China's rise, and contingently impact how the host region of Suez is integrated into Chinese circuits and world markets.

It is therefore due to both domestic institutions, norms and modes of practice on one hand and the zone's enclave structure on the other that the SETCzone has done nothing to address the underpinning conditions of low productivity and marginal levels of market integration in the local and domestic economies. The following section shows how the complex dynamics of Chinese zone-based cooperation identified in this chapter impact the development pathway of the host region by generating particular patterns of GVC/GPN integration, production, accumulation and exclusion that are the structural expression of the complex spatial relations identified.

8. The structural expression of GVC-led spatial development in the SETCzone: Patterns of production, accumulation and exclusion in Chinese-led production chains

The previous chapter demonstrated how China's transferable overseas economic zone model is translated and assembled within the situated context of Egypt's militarised development landscape. The analysis examined the dynamic, interactive and negotiated process of aligning a diverse range of actors around a spatial growth approach adopted in the Suez Economic and Trade Cooperation Zone (SETCzone), but rooted in a broader agenda of GVC/GPN-driven spatial-economic development. Chapter 7 demonstrated that, as military actors in Egypt synergies their development objectives with Chinese partners around the goal of enhancing spatial connectivity, land commercialisation and the militarisation of development emerge as part and parcel of the global development landscape in the context of China's rise. This chapter turns its attention to the structural effects of GVC/GPN-led spatial planning with Chinese characteristics in the SETCzone. The discussion examines how the complex dynamics of Chinese zone-based cooperation impact the development pathway of the host region of Suez and its linkages to world markets in a country that seeks to use Chinese investment and know-how to effect structural change in the economy.

This chapter argues that the complex spatial relations underpinning the SETCzone's construction generate particular patterns of production, accumulation and exclusion that are the structural expression of the complex relations identified. Specifically, an Egyptian military-led economic strategy that relies on land commercialisation as a strategy for development intersects with a GVC/GPN approach with Chinese characteristics in the SETCzone, where production organisation is controlled by lead firms in the chain without the intervention of domestic government institutions at the firm-to-firm level. The intersection of these two strategies has enhanced the power of the Egyptian Armed Forces by allowing military-led entities to generate rent from exploiting public land and undertaking or managing service, supply and infrastructure contracts. Meanwhile, Chinese firms are left to coordinate activity in the zone, allowing lead Chinese firms to retain control of all stages of the value-addition process. The alignment of actors around a firm-coordinated upgrading-oriented approach deployed in the SETCzone has thus enabled the exclusionary access of Chinese firms in the zone, allowing these firms to maintain the vertical integration of their production chains, as this chapter will demonstrate. The particular dynamics of production organisation in the SETCzone have allowed the zone to operate independently of its local setting and to develop as an exclusionary node of value creation integrated into Chinese economic circuits and segregated from the host economy.

By foregrounding the mechanisms of transformation and exclusion in the SETCzone the chapter develops an empirical case study to illustrate the complex, open and ongoing processes of economic globalisation, particularly in relation to GVC/GPN-oriented development, spatial transformation and social exclusion in the context of China's rise.

The chapter is divided into three sections. The first section challenges the mainstream thesis of upgrading through GVC/GPN integration that underpins firm-relations in the SETCzone. This section demonstrates how a firm-coordinated upgrading-oriented approach enabled by spatial policies deployed in the SETCzone effectively allows Chinese economic actors to avoid capability transmission in order to achieve the political-economic objective of maintaining the vertical integration of Chinese value chains. The analysis follows from the theoretical proposition that spatial relations enable the material structures of production, exchange and accumulation. The second section will empirically illustrate the dynamics of production organisation in the SETCzone. It will demonstrate how, using the principle of intrafirm collaboration, firms remain vertically integrated across a range of offshored industries present in the zone. The third and final section addresses the impact of firm-coordinated development in the SETCzone on the development pathway of the host region of Suez. The discussion foregrounds the exclusionary, marginalising effects of the development through upgrading strategy that underpins the creation of modern zones.

8.1. Firm-coordinated development in the SETCzone: Challenging the thesis of upgrading through GVC/GPN integration

A starting point of the analysis in this chapter is to reassert the argument that a firm-coordinated development agenda, emanating from leading international development institutions and underpinning the practices of Chinese economic actors in the SETCzone, is bias and privileges lead firms. This position stands in contrast to mainstream assumptions around the capacity of firm-led development to help domestic firms upgrade. The evidence provided in this chapter shows that production relations are not determined mechanistically under this model, nor do they unfold in accordance with classical notions around firm-led development, where lead firms disaggregate production to suppliers, allowing them to enhance their capacities and eventually upgrade. But neither is the analysis based on radical critique that does not engage with the production process itself, focusing solely on the types of exploitative relations that emerge within firm-coordinated chains. Such systematic critiques focus on the hierarchal nature and marginalising effects of GVC-development and global manufacturing in general, where the focus is on adverse outcomes for communities or segments of them without looking at the actual firm dynamics that result in and explain non-developmental outcomes (Adly 2020)

Thus, beyond debunking or defending firm-led coordination in GVC development, this chapter also examines the particular patterns of production, accumulation and exclusion that are the expression of the spatial relations examined earlier. In the SETCzone these spatial dynamics have allowed Chinese firms and planners to determine the particular industries and sectors of production being outsourced by Chinese firms, and the types and patterns of firm relations being forged. This outcome supports the wider assumption that place-based development pathways in the SETCzone and elsewhere are shaped by the historical backgrounds, strategic imperatives, political-economic considerations, supporting agencies and practices of enrolled actors within the wider context of GVC-oriented spatial-economic development.

On the one hand therefore the development model implemented in the SETCzone is rooted in a dominant paradigm of spatial-economic development imposed by international development institutions and adopted by national governments worldwide. This paradigm promotes an economic zone model that enjoys near-complete administrative autonomy, a regulatory framework that privileges offshoring firms and an infrastructure model that prioritises international over domestic connectivity (chapter 3). This approach to development has been termed GVC/GPN development in the present research. At the heart of this paradigm is the assumption that providing a free trade environment and investment facilitating measures for offshoring firms is sufficient to support industrial upgrading in the host economy.

Theoretically, decisions about inclusion or exclusion of suppliers in the domestic economy are based on a lead firm's ability to locate the most cost-effective products and services produced by third parties on the open market. The assumption is that offshoring firms would gradually disaggregate non-core production functions to local suppliers once these competencies are acquired in the domestic industrial base (Riedel 2009, 37). Contrary to mainstream thinking however, more critical approaches suggest that linkages do not happen spontaneously, but require various forms of intervention to connect offshoring firms to third party suppliers of components and services in the domestic market (Kaplinsky and Morris 2016, 640). Otherwise relocating firms may exploit local sources of competitiveness that improve their business productivity without necessarily producing structural effects in the domestic economy. The success of Special Economic Zones in the Asian context is often taken as evidence of the importance of firm-level interventions to support industrialisation. The success of Asian zones is seen to have depended on two factors: the extent to which zones are linked with the whole economy, and their ability to support the transition of the host economy from a manufacturing basis to technological innovation (Asian Integration Report 2015).

An examination of a firm-coordinated GVC approach in the SETCzone supports the latter claims. As discussed in the chapter 5, Chinese Economic and Trade Cooperation Zones in the Africa are largely characterised by an absence of domestic linkages, which has resulted in their development as exclusionary node for value creation in China's unbundled value chains. Chapter 5 also pointed out that the failure to develop domestic linkages in the Chinese-Egyptian SETCzone in particular can be attributed to the policy model adopted in the zone.

On the other hand however, the analysis ahead reveals that the absence of domestic linkages in the SETCzone enables, and is enabled by a distinct Chinese internationalisation agenda linked to the particular imperatives shaping China's trajectory. In the majority of cases, lead firms in China that have relocated a subsidiary or affiliate into the SETCzone have adopted the key organising principle of intra-firm collaboration. With the support of a range of incentives and privileges on offer to relocating firms, these enterprises are able achieve greater efficiency in markets without having to rely on the complementary competencies of local suppliers. This form of production organisation aims to maintain the vertical integration of Chinese enterprises, keeping international expansion within Chinese firms and their affiliates and subsidiaries rather than licencing to local contract partners. This strategy has allowed lead firms in China to offshore production to lower-cost locations while retaining control of all stages of the value-addition process they already control and even gain a larger percentage of these value chains by moving closer to customer and supply bases abroad (Jie 2012, 34).

This arrangement is made possible by a firm-coordinated development framework where production organisation is controlled by lead firms in the chain without the involvement of relevant domestic governmental institutions.

In terms of its developmental impact, the SETCzone provides the host region in Suez with the immediate static gains of job creation, bringing in foreign currency and increasing exports, while failing to generate dynamic structural advantage of increasing value-added in the domestic economy and ultimately contributing to wider industrialisation (see section 8.2.). According to the former Chairman of the Suez Economic Zone, Ahmed Darwish, who was interviewed for this research soon after he was removed from office and replaced by a military general, the fact that static advantages appear to be the only ones sought by the Egyptian authorities does not make the types of effects generated a structural inevitability (Darwish, Cairo, 2017). From the outset, Darwish argued, opportunities existed for creating industrial linkages and enhancing the input of advanced technology to develop the capacities of domestic firms. Under his tenure, however, Egyptian planners and managerial staff were not involved in decision-making on industrial planning and were therefore unable to advocate for domestic institutional intervention.

Darwish described the issue as a chicken and egg problem. In order for industrial linkages to develop big manufacturers require a good feed-in industry nearby, and domestic suppliers will only relocate near a big factory if incentives and assurances are provided. But these types of firm relations must be coordinated at a higher level within Egypt's complicated business environment. This would be the work of the zone's Chairman once a strategy was set, but the official support would be needed in to negotiate agreements and build business relationships was absent. Darwish concluded that in a present context, if and when firm linkages do develop it will be on a case by case basis, and would depend on firm demand rather than domestic development planning.

It can be concluded therefore that assessing the impact of Chinese FDI inflow and understanding how exclusionary outcomes are produced requires further investigation beyond answering the question of whether theoretically they are capable of contributing to employment, skills transfer and industrial upgrading.

8.2. Maintaining the vertical integration of Chinese firms in the SETCzone: Evidence across sectoral operating environments

The following section highlights the range of industries and sectors present in the SETCzone, then uses firm-centred analysis to illustrate the principle of intrafirm collaboration employed by Chinese firms across a three core industries present in the zone. These three industries are heavy industry, fiberglass and textiles. The industries examined are highlighted because of their important strategic interest to zone planners, as well as providing a good cross-section of operating environments in the SETCzone. The analysis foregrounds the process by which Chinese firms actively maintain the vertical integration of their value chains across these as well as other sectors.

8.2.1. Sectoral composition of the SETCzone

In an interview for this thesis, SETCzone managers identified four priority sectors for investment attraction in the zone: heavy industry, electrical equipment, fiberglass and textile (Samy, Suez, 2018). Out of 32-38 manufacturing enterprises operating in the zone in 2018 there were five megaprojects in the heavy industry, fiberglass and electrical equipment sectors. The remaining companies were SME's in the light and medium manufacturing sector. The zone was operating at full capacity and not expected to have received any new investments in the time since

The light and medium manufacturing sector in the zone is heavily dominated by textile firms, but also includes producers of sanitary products, tableware and plastic bags (Egypt TEDA Development Report 2016, 18). It is composed of approximately 30 SMEs supporting the supply chains of firms in China (discussed in detail below).

Three out of the five megaprojects in the zone were in the heavy industry sector. The first of these companies is International Drilling Material Manufacturing (IDM), an Egyptian-Chinese company with an investment valued at $30 million (Suleiman, Suez, 2018). IDM produces casing and tubing used in drilling and pipeline equipment and sells its merchandise to large international oil companies operating in the Suez Canal and the Mediterranean deep-water ports. The second heavy industry megaproject is the Egyptian Petroleum HH Rig Manufacturing Shareholder Company (EPHH), a Chinese-Egyptian joint venture producing petroleum digging equipment, also a $30 million dollar investment. Finally, the third heavy industry megaproject is Muyang for agricultural machinery manufacturing, a company with an investment valued at $75 million producing machinery that is marketed domestically and regionally.

Operating in the electrical equipment sector, the fourth megaproject is high-voltage electrical transmission equipment manufacturer XDEGEMAC, a $96 million investment jointly owned by Chinese state-owned enterprise (SOE) China XD with 51 percent of shares and the Egyptian state-owned Egyptian-German Electrical Manufacturing Company EGEMAC with 49 percent of shares. The fifth and final megaproject in the zone is in the Fiberclass sector and is called Jushi Egypt for Fiberglass Industry S.A.E. Jushi Egypt is a $58 million subsidiary of the world's second largest fiberglass manufacturer Jushi Group Co. Ltd. According to the SETCzone's Investment Promotion Manager Ahmed Suleiman, interviewed in 2018, Jushi Egypt employed 2000 workers at the time and produced 200,000 tons of fiberglass annually, 80 percent for export 20 percent for the local market (Suleiman, Suez, 2018).

8.2.2. Vertical integration in the heavy industry, fiberglass and textile sectors

First-hand data gathered by the author from five Chinese heavy machinery and textile enterprises in the period between January and April 2018 shows that in both thes e sectors the inclusion of domestic enterprises into the value-addition process is either limited or controlled. A mix of first-hand and secondary data gathered by the author (the latter from documentary sources that include official reports and news articles), on enterprises in the fiberglass sector confirms that the vertical integration of Chinese value chains is a feature that cuts across all industrial sectors present in the SETCzone, despite considerable variation in strategies adopted within each sector. Primarily, a combination of approaches that see some chains cutting across more than one country and others ending in the SETCzone is encouraged, as pressures in different industries push firms towards different strategic imperatives and markets. Megaprojects in the zone act as upstream suppliers, directing their product flow of component parts to regional markets in the Middle East and Africa. SMEs on the other hand are small-scale downstream suppliers supporting the supply chain of firms in the Chinese national economy by finishing or assembling products for local (or regional) distribution and consumption.

In both patterns of cross-border production, however, the key organising principle is intrafirm collaboration. Lead firms retain control of all stages of the value-adding process rather than disaggregate production to local suppliers, a strategy that supports China's national industrialisation and development objectives.

Heavy industry and fiberglass megaprojects

Most of the companies in the heavy industry sector are upstream suppliers with massive fixed-asset instalments that seek to achieve economies of scale by directing their product flow to local and regional markets. International Drilling Material Manufacturing (IDM), for example, is an input supplier that sells its merchandise to Egyptian companies in the petroleum sector as well as international oil companies active in the Suez Canal and the Mediterranean deep water (Anonymous source (c), Suez, 2018). According to a senior plant manager who requested anonymity, the company largely serves Egypt's petroleum sector with a range of clients that include companies like Petrobell, GAPCO Oil and Qarun Petroleum (Anonymous source (c), Suez, 2018). As a supplier IDM produces inputs such as casing and tubing used in the manufacturing of drilling and pipeline equipment. It does so by adding value on semi-finished steel pipes and tubes imported from China's largest steel mill (Anonymous source (a), Suez, 2018). Egypt is currently the MENA region's largest steel producer, but despite this IDM has no plans in place to begin sourcing its basic inputs from the Egyptian market. This could be because Chinese products are cheaper to import into the zone, or because the required input specifications cannot be met domestically (Anonymous source (c), Suez, 2018).

Similarly Jushi Egypt, a $58 million subsidiary of the world's second largest fiberglass manufacturer and the largest fiberglass manufacturers in the Middle East is an upstream supplier largely producing for export. According to SETCzone's Investment Promotion Manager, 80 percent of Jushi Egypt's annual output capacity of 200,000 tons is exported to Europe and the Middle East, while 20 percent is sold in the local market (Suleiman, Suez, 2018). Like IDM, the majority of Jushi Egypt's inputs are supplied by Chinese firms. But what Jushi Egypt has done differently is that, alongside its domestic and regional export activities, it has transferred its own upstream and downstream suppliers to the SETCzone. The Suez area is endowed with reserves of glass raw material which allows for industrial mineral mining and raw material processing as well as production and final processing. Upstream suppliers extract the main mineral constituents of fiberglass including silica sand, quartz and kaoline from nearby quarries, supplying Jushi Egypt with raw material for production (Samy, Suez, 2018).

Investment Promotion Manager Ahmed Suleiman further revealed in an interview that Jushi Egypt has also brought in downstream suppliers with their own production lines, forming an entire fiberglass industrial cluster in the zone (Suleiman, Suez, 2018). After producing the fiberglass Jushi Egypt acts as supplier to a Chinese zone-based company called Hengshi Egypt Fiberglass Fabrics, a smaller fiberglass company worth $10 million in investments. Hengshi processes the fiberglass to make products that are then exported to Europe, Portugal, the United Sates. The exported fiberglass fabric is used by companies like Siemens to manufacture wind turbine blades, as well as being used in the manufacturing of yachts and pipelines (Suleiman, Suez, 2018).

Jushi Egypt's production organisation pattern is thus illustrative of the tendency of Chinese firms to bypass domestic markets and internalise production operations, including in extractive sectors and in an area of abundant mineral wealth in the country. Jushi Egypt also provides an example of the role played by domestic actors in enabling these dynamics. When the company was first established and in response to official Chinese requests, Suez Canal Economic Zone (SCzone) officials took an elective decision to waive the 10 percent foreign employee quota required by Egypt's Special Economic Zone law and raised it to 16 percent of the company's payroll (Darwish, Cairo, 2017). This likely impacted Egypt's main performance targets in the zone by reducing employment numbers, while also depriving local employees from valuable opportunities for promotion and for obtaining higher value-added skills in the industry. On the other hand, however, the move may have been balanced out by other benefits for domestic zone actors, such as Jushi Egypt's provision of fiberglass for solar panels installed to generate electricity in the SETCzone, or plans to bring additional value into the zone by establishing a second plant in the SETCzone's planned extension (Suleiman, Suez, 2018) .

Textile SMEs

While the majority of heavy industry firms are upstream suppliers, most of the zone-based SMEs act as downstream suppliers (or final output generators) supporting the supply chains of firms in the Chinese national economy. SMEs import unfinished products from China, finish or assemble them and sell the final product directly to end-users. In this way SMEs enable Chinese domestic enterprises to operate abroad while efficiently retaining complementary competencies in task-based production -and sometimes marketing, logistics and distribution- in house.

The majority of the SETCzone's SMEs are in the textile sector but the zone's SME park is open to a range of other medium and light industry activities. SMEs in the textile sector import all the primary commodities used in production, such as fabrics and yarn, directly from their parent firms or manufacturing supplier factories in China (Samy, Suez, 2018). Some of the primary inputs used in production (such as yarn) are available locally but the ease of sourcing them from Chinese domestic firms diminishes the need to rely on local suppliers. Zone-based firms then direct access of finished products such as scarves and blankets to consumers in local and reginal market (in the SME's examined for this research only 20 percent of production is exported regionally (Elhamoly, Suez, 2018; Nabil, Suez, 2018)). Domestic traders, wholesalers and retailers serve as a link between Chinese manufacturers and domestic Egyptian markets (Elhamoly, Suez, 2018).

Factories such as single-brand blanket manufacturer Linyi, carpet and blanket manufacturer Ya'ou, and scarf manufacturer Tianjin Egypt-Yashmagh Textile Co. provide illustrative examples of SMEs that have remained vertically integrated with their parent firms in China. These firms import both unfinished products and most of the primary commodities used in assembly such as fabrics and yarn. According to the firm's acting manager Pola Nabil, Ya'ou is a medium enterprise with an investment valued at $0.8 million and a workforce of 70 employees (Nabil, Suez, 2018). The company branched off a textile workshop in the city of Wenzhou in the Zhejiang province, produces for the local market and receives monthly imports of material from China in the form of ready to cut fabric rolls. Linyi is also a medium enterprise but with a somewhat larger investment of $2.5 million. Linyi hires anywhere between 42 and 58 employees at a given time by the estimates of the factory manager Yassmin Elhamoly (Elhamoly, Suez, 2018). Linyi's parent firm is an integrated textile factory in the Shandong province of China producing blankets under the brand name of Senfela. The lead factory's operations include fabric and yarn mills, printing, dying and design services, and it is the source of all of the zone-based subsidiary company's input needs.

Tianjin Egypt-Yashmagh Textile Co. is a $1 million investment (China-Egypt TEDA Suez Economic and Trade Cooperation Zone Development Report 2016, 18) that also produces for a larger company in China. Having moved closer to the company's main customer base in the region, Tianjin Egypt-Yashmagh intends to become the parent company's main regional production site for types of headwear worn in the Middle East while, based on current production operation patterns, remaining vertically integrated with the China-based firm. The company's ambition for expansion is reflective of one of the SETCzone's main aims, that of supporting the potential for small and medium Chinese enterprises to eventually become significant brands and chain leaders themselves (Brautigam and Xiaoyang 2011b, 70).

Outside the textile sector Egypt YanJan Products Co., Ltd for non-woven perforated films and isolated layers produces lining for sanitary products for export to local, regional and European markets. In this instance however the zone-based SME produces upstream components that are then finished by larger firms located in such countries as Turkey and Germany (Shehata, Suez, 2018). The company's main import, polyethylene, comes from China, but also Singapore and Saudi Arabia for cost efficiency. Packaging is imported from the main company in China though some supplies are sourced locally from Egypt's 10th of Ramadan industrial zone if they pass quality control. Egypt YanJan is a subsidiary of Xiamen YanJan Industry Co., Ltd, one of China's largest producers of non-wovens and a supplier for such companies as The Procter & Gamble Company and Johnson & Johnson, according to its representative (Shehata, Suez, 2018).

An analysis of the strategies adopted by the SME's highlighted above shows that the principle of intrafirm collaboration adopted in the SETCzone provides opportunities for Chinese firms to improve their productivity and performance while restricting the participation of domestic suppliers in the production process. A policy frameworks that enables firms to maintain the vertical integration of their production chains supports Chinese export policy. This framework allows Chinese firms to exploit local sources of competitiveness that improve business productivity, while also maintaining their control over all stages of the value-addition process. Meanwhile, the absence of any substantial avenue for linkage formation between Chinese enterprises and the domestic industrial base impedes the ability of these investments to generate opportunities for vertical advancement and upgrading in the host economy.

8.2.3. Instances of production localisation in the SETCzone

In most cases Chinese lead firms keep international expansion within the firm by retaining non-core functions internally rather than licencing to local contract partners. There are, however, cases where collaboration with domestic firms and suppliers occurs. There are two forms of joint production in the SETCzone. The first is sourcing component parts locally when necessary for improving the competitive performance of offshoring Chinese firms. The second is entering into joint ventures with domestic SOEs.

Local sourcing

In some cases Chinese firms may source basic inputs needed in production from the domestic market. In such instances the outsourcing Chinese firms determine strategically what functions to contract out to domestic firms. These functions are usually low-complexity tasks with few standardised specifications. These instances of outsourcing allow participating firms to claim that they are active in Chinese production chains, and local officials to claim that they are raising the export profile of domestic firms. In reality these "looser" or less explicit types of firm relations (Taglioni and Winkler 2014), termed arms-length market relationship in GVC governance literature (Gereffi et al 2005), have limited impact on generating domestic competition in serving multinational companies in the local industrial base. Such competition is considered a necessary driver of technological upgrading in the production chain.

The above can be illustrated in the case of high-voltage electrical transmission equipment manufacturer XDEGEMAC, a zone-based company jointly owned by Chinese SOE China XD and the Egyptian state-owned Egyptian-German Electrical Manufacturing Company EGEMAC. XDEGEMAC produces the primary components used in the development of power plants, Gas Insulated Metal Enclosed Switchgear (GIS) and high voltage power transformer (Younes, Suez, 2018). The main components of GIS, circuit breakers and isolating switches, are imported and then assembled in the plant while inclusers, tubes that contain a type of gas that is sourced locally, are produced on site (Zayed, Suez, 2018).

The production of transformers, on the other hand, is highly localised. In an interview conducted in 2018 XDEGYMAC project manager Mostafa Zayed explained that 60 percent of transformer inputs such as steel structures, conductors and copper bars are purchased from local vendors (Zayed, Suez, 2018). In the face of rising competition from companies in Europe, Japan and South Korea, who dominate the switches and transformer market, localising less complex heavy production provides XDEGEMAC with scope for cutting retail costs, allowing the company to maintain and increase competitiveness (Du, 2014). Production of electrical equipment manufacturing also requires a critical minimum production scale to be economically viable, and costs are made significantly lower by relying on parts and components from the domestic market.

The type of firm linkages that have developed between XDEGEMAC and Egyptian component suppliers are classified in the GVC framework as arms-length or market relationships. In chains characterised by market relationships, upgrading prospects for component manufacturers are found to be lower and generally are not fostered by the global buyer (Humphrey and Schmitz 2002, 9). The low complexity of domestic components used in transformer production keeps buyer-seller design transfers and coordination requirements at a minimum and transaction costs relatively low. There are few product performance standards to be met and the buyer's requirements can be fulfilled by a number of firms in the local market, making it easy for the outsourcing firm to switch to new sources of supply to reduce costs. As a result "deverticalising" to local suppliers fails to boost indigenous technological capabilities in such areas as product development and quality, and keeps supplier knowledge transmission at a minimum. This appears to be an intentional strategy adopted by the Chinese lead firm. As Morrison et al. note, "Global buyers have indeed a clear incentive to keep their suppliers dependent on them and not to disclose their core competencies, and accordingly to discourage their attempts at developing strategic competencies." (Morrison et al. 2008, 160).

Joint ownership of SETCzone enterprises

The second localisation strategy employed in the SETCzone is joint or co-ownership. This applies to three out of five of the zone's heavy-industry megaprojects. These projects are joint enterprises between Egyptian and Chinese enterprises (SOEs in both cases) according to both interviews with plant managers and investment figures retrieved from one of the SETCzone's annual reports (China-Egypt TEDA Suez Economic and Trade Cooperation Zone Development Report 2016, 18). IDM is a 50 percent Egyptian 50 percent Chinese owned company (Anonymous source (c), Suez, 2018); XDEGEMAC is a joint partnership in which a Chinese-Egyptian joint venture owns 49 percent of the shares and a Chinese state-owned power engineering company and manufacturer of electrical equipment XD Group owns 51 percent (Younes, Suez, 2018); Egyptian Petroleum HH Rig Manufacturing Shareholder Company (EPHH) is a joint venture in which Chinese interests hold approximately 60 percent and Egyptian interests hold 40 percent of the shares in the company (China-Egypt TEDA Suez Economic and Trade Cooperation Zone Development Report 2016, 18).

Partnerships between offshoring and domestic firms should theoretically create opportunities for more explicit coordination within joint venture firms as well as more customised and complex exchange operations. But rather than a strategy to facilitate knowledge sharing and learning, the joint venture model as implemented in the SETCzone appears to function as a quid-pro-quo exchange between Egyptian and Chinese state-owned companies. On the Egyptian side SOEs partnering with Chinese firms generate economic rents while keeping government entities active in big projects that, according to XDEGYMAC engineer Ibrahim Younes, it could not have implemented independently at the required level (Younes, Suez, 2018). On the Chinese side entering into a joint venture with a domestic SOE opens up lucrative opportunities in sectors that would have been difficult to penetrate by foreign-owned firm.

In the power sector, for example, EGEMAC leverages its position as an enterprise of the Ministry of Electricity and Power to take on the role of gatekeeper to the Egyptian market in its joint venture with Chinese partner XD. EGEMAC's stake in the joint investment affords XDEGEMAC the opportunity to receive preferential treatment in the award of government tenders owing to the relationships of favouritism between Egypt's political authorities and state-owned enterprises. Tellingly, since it was established in 2013 the Ministry has been XDEGEMAC's sole client, signing various large contracts to implement power plants and transformer stations across the country (Younes, Suez, 2018). In the coming years, Egypt will continue its policy to lift electricity subsidies completely (Abdel Halim, 2021), guided by a long-standing World Bank-initiated strategy to liberalise and commercialise the electricity sector as part of a broader program of subsidy reforms (Hanieh 2014, 131). As a result profits are set to increase in the industry, as result of demand for electrical transmission equipment and transformers. This will strengthening plans by XDEGEMAC to continue "serving state businesses", according to a an employee at a SETCzone factory who wished to remain anonymous (Anonymous source (a), Suez, 2018).

Meanwhile although EGEMAC also specialises in producing high-voltage electrical transmission equipment and transformer, after contributing its share of the capital costs in land and benefiting from shared returns, there is no form of inter-firm exchange or collaboration with the joint venture plant in order to absorb, adapt and create technology. Even at the level of day-to-day operations, XD-appointed managers are responsible for overseeing plant management, work force practices, procurement, logistics, production patterns, and delivery of machinery and production technology (Anonymous source (a), Suez, 2018).

8.3. Constructing exclusions: The impact of the SETCzone on the development pathway of the host region in Suez

Rather than acting as a catalyst for enhancing productive capacities in the wider economy, the vertical integration of Chinese production chains in the SETCzone has enhanced its status as an enclave of FDI and liberal trade. More broadly the SETCzone is modelled after a pro-market ideal-type globally-linked economic zone model underpinned by a firm-coordinated development through upgrading approach. This pattern of production, where processes of value creation, capture and enhancement are coordinated by lead international firms, is associated with the exclusionary, marginalising effects of globalisation that are witnessed in the contemporary global economy. In this way, the SETCzone maintains a global paradigm of investment facilitation and trade liberalisation that serves to format the forms of inclusion-exclusion upon which global markets depend to function and grow (Bair and Werner 2011, 1013).

The constitutive exclusions that underpin the shifting geographies of global production in the SETCzone operate on two levels: *within* the zone itself through the exclusion of Egyptian workers and firms from processes of capacity building through the transfer of skills and technology; and *between* the zone and the surrounding region, primarily the domestic industrial base which is disarticulated from the gains of globalised economic activity occurring within the demarcated boundaries of the SETCzone (McGrath 2018; Bair and Werner 2011).

The first form of exclusion relates to the uneven forms of development generated within the zone itself. Because labour costs in the zone are so low it is more cost-efficient for investors to employ capital-saving production, lowering the technology level of FDI received in the SETCzone while supporting the offshoring of low-skill labour-intensive Chinese manufacturing industries. As a result local workers are deprived from developing higher-value skills and experience. Field research in the SETCzone site revealed that textile enterprises for example are characterised by low fixed asset investment, despite the introduction of technologically advanced production into China's textile industry, including the use of computerized systems and more automation in production. As observed by the author, in tasks like stretching and cutting (which are semi- automated), sewing, and packaging in SETCzone firms, value-addition is largely based on manual labour with little impact on building up a skilled labour force. The concentration of capital-poor, labour intensive ventures in the SECzone thus maintains a similar pattern of industrial investments as that generated over several rounds of Egypt's economic liberalisation with the pursuit of low-cost, short-term industrial profit by domestic business elites and international capital (Achcar 2017, 26).

Among the major factors enabling the exploitation of Egyptian workers for profit in the SETCzone are the poor labour standards and weak protections inscribed by Egypt's Special Economic Zone legislation. A substantial preferential policy offered to companies in the SETCzone is the ability to determine labour regulations according to terms that can be more flexible than those prevailing under the Egyptian Labour Law (Law No. 83 of 2002 on Economic Zones of a Special Nature, 2002, 9). Utilising this policy empowers employers to extract the highest productivity per worker in a variety of ways, including low pay, insecure employment, manipulation, punishment, overwork and unfair dismissal, among other questionable labour practices (Anonymous source (b), Suez, 2018). This has led to high turnover rates across industries, and as a result employment in the zone is unlikely to foster cumulative knowledge build-up and capacity-building. For SME's like Linyi, for example, which only hires employees from upper Egypt because they accept lower wages, employee turnover is exceedingly high because workers seek out better opportunities outside the SETCzone owing to poor working conditions and low pay (Anonymous source (b), Suez, 2018). In larger firms such as Jushi a senior level manager estimated that turnover is at an approximate rate of 20 percent among unskilled factory workers due to the same reasons (Anonymous source (b), Suez, 2018).

The various forms of exploitation and exclusion present in the SETCzone are not restricted to low-skill labour intensive activity, but are equally prevalent within the ranks of skilled technicians and local managers. IDM, for example, has a workforce of 141 employees including 135 who are Egyptian, mostly technicians, and six Chinese experts. Qualified Egyptian technicians are trained to operate machines on site, but Egyptian manpower operates across a range of different projects and tasks based on need. Technicians may take on the role of construction worker, welder, rigger, electrical technician or general “helper”, undoubtedly increasing their workload and obstructing their opportunities for vertical advancement under the pretext of “learning new skills”, all while saving the company the cost of hiring additional specialised workers (Anonymous source (c), Suez, 2018).

Relatively higher-complexity industries such as electrical equipment manufacturer XDEGEMAC, invest more heavily in modern technology. The company provides its 170 employees, the majority of whom are Egyptian, with in-house managerial and technical training to equip them with adequate technology know-how on more advanced production (Younes, Suez, 2018). Much of this training, however, is related to assembly as most of the parts used in manufacturing are imported, though some heavy production occurs on site. Moreover, most of the skills learned in heavy instalment sectors are not easily transferable (Younes, Suez, 2018), and therefore have limited impact on generating new activity in the absence of a comprehensive and coherent industrial development framework.

The reality of production operations on the ground in the SETCzone challenges the pro-market idea linked to firm-coordinated development that technology and skills absorption are spontaneous and determined within the chain. The empirical evidence further confirms that these processes can be obstructed at the prerogative of the lead firm.

The second form of exclusion generated by the SETCzone is the disarticulation of the surrounding region from the gains of globalised economic activity within the zone. Disarticulation emerges from uneven development between the zone and the surrounding region. The SETCzone’s enclave spatial structure reflects a core emphasis by the zone operator on creating an open trading environment linked directly to Chinese regions but isolated from the rest of the Egyptian economy. Physical planning and lack of supportive policies by relevant institutions has allowed Chinese firms to maintain the vertical structure of offshoring firms, and as a result production activity in the SETCzone is disembedded from the region in which it is located while being integrated into Chinese networks of global production and exchange. As noted, this pattern of exclusion cuts across all industries and sectors represented in the SETCzone and leaves minimal opportunity for engagement with the local economy and no spill overs accrued to local firms.

Suez is home to a number of industrial areas and facilities serving a range of sectors. These include a well-developed petroleum sector, mining and quarrying, chemicals production, engineering, electronics and electrical industries, and other light industries such as paper and paper products, wood and wood products, and food and beverages. According to a senior employee at the Suez Regional Unit of Egypt’s national technical ‘dual education’ program (known as Mubarak-Kohl and currently housed in Suez’s Investor’s Association), existing industries in the area surrounding the zone would theoretically be capable of providing specialised inputs and services to large foreign enterprises (Anonymous source (f), Suez, 2018). If given the opportunity to become input suppliers, local product manufacturers would be well-positioned to facilitate the transfer of technical know-how to the domestic industrial base. But according to the dual program employee, who requested anonymity to protect their identity, neither central nor local government actors have shown interest in developing interfirm collaborative activities in the domestic supply base, despite numerous appeals by the dual education program's technical staff for government support in facilitating industry ties (Anonymous source (f), Suez, 2018). Without a plan to exploit available industrial resources, the concentration of FDI and the preferential access to infrastructure and other economic rent granted to foreign firms only reenforces the exclusion and decline of the area surrounding the SETCzone.

The old industrial area on the Suez-Ismailia road provides an illustrative example of how the SETCzone enables the disarticulation of the surrounding region from globalised economic activity. The old industrial area near Suez city is home to a large concentration of establishments in the automotive sector including companies, technical workshops, repair garages as well as other vital facilities attracting residents of nearby communities. The auto-workshops in the area provide services such as repair, bodywork and maintenance. The workshops also serve as a hub for technical training and a step into the auto industry within the national dual-system technical educational program, which facilitates vocational education in the private sector (Anonymous source (f), Suez, 2018). Fieldwork review of the area in November 2018, however, revealed a neglected and run down estate with broken roads, dilapidated buildings and a series of cramped old workshops opening onto narrow unpaved streets. The entire industrial area has long suffered poor conditions, including the absence of even the most basic of services.

Figure 8.1. The old industrial area on the Suez-Ismailia road in Suez (Source: Author, Suez, 2018)

Significantly, a long-running discussion on launching a strategy to develop Egypt's automobile industry in Suez has largely overlooked the existing industrial base in the region as a focal point for further development. Any proposed visions on providing the conditions for local industry to emerge throughout the years have focused on establishing new production bases away from any 'pressures' that may affect them within the domestic economy (Amer 2016; Hamada 2010). This includes more recent debates between private sector associations in the automotive industry, government bodies and the Suez Canal Authority around a vision of establishing new auto-industrial zones for automotive companies and feeder industries with easier procedures, infrastructure services and subsidised energy as a way to increase in local production and exports in the sector (Amer 2016). This comes withing a broader strategy that aims to develop Egypt's auto industry and increase manufacturing and exports in the sector by attracting international companies to operate in the domestic market. International investors are lured with size of the Egyptian consumer market, and are obliged to export part of their production in return (Amer 2016).

A similar plan animated the establishment of a designated automobile area in the SETCzone when the zone was first launched in 2008. Though an automobile cluster failed to emerge in the zone's initial stages, plans to create one were reintroduced in 2016 with an agreement to establish an auto city in the expansion area of the cooperation zone (TEDA Suez 2016). The plan for a Chinese-run auto city in the zone combined import and export, re-export, storage, maintenance and logistics and covered the scope of the Egyptian automobile consumer market. In the context of national strategic cooperation between Egypt and China, the project also claimed it would offer local firms the chance to cooperate with Chinese enterprises towards improving their capabilities (TEDA Suez 2016). Such a strategy, if implemented, would provide local industry opportunity to increase revenues for local enterprises, develop and advance the industry and increase value-added in the automotive sector, helping to regenerate the existing industrial areas

Such planning would require extensive coordination with local authorities, national bodies and existing industrial and skills-development initiatives on developing a program to foster linkages with auto firms and workshops in close proximity to the SETCzone, such as those present in the old industrial area. But though the Chinese auto city received support from the Egyptian government, partially as an of industrial cooperation initiative, the host of cooperative agreements signed in the context of the project were in commercial and logistics services including import, storage and resell of used-cars (Xinhua 2022). Upon its launch, while official statements accompanying the new project indicated an intent to diversify beyond the core activity of offshoring industrial capital, the activities that subsequently emerged did not support developing capabilities in the domestic market. Instead they actively contribute to the exclusion of local businesses from the globalised economic activity taking place in the zone as a growing node of global circulation and exchange.

The SETCzone's constitutive exclusions emerge from the confluence of, and interaction between two sets of factors. First is the structure of the productive economy, which is dominated by economic and political actors who deny the broad base of private small and medium enterprises the opportunity to scale up (historically the domestic coalitions and institutional rules controlling access to physical and financial capital and more recently a militarised development landscape, as discussed in the previous chapter) (Adly 2020, 75). This has led to the exclusion of local specialised suppliers from processes of economic planning, only in part due to the lack of existing capacity to provide goods or services at a high degree of specification and customisation. Second are the dynamics of Chinese manufacturing investments in Egypt, in which the transfer of China's industrial capacity offshore has failed to catalyse industrialisation and structural transformation.

The above points to the role of contemporary economic zone policy programs in promoting the exclusionary market access of international firms and their subsidiaries, and sometimes suppliers through technology, innovation, preferential access and other economic rents, while excluding the majority of local firms, industries, social groups, workers and other stakeholders who fall outside the given criteria for entry. But the analysis also demonstrated that GVC/GPN integration patterns and the exclusions they format are actively and relationally constructed. Thus, as the development landscape has become increasingly diverse, international development agencies continue to set the standard for development practice, advancing policies that are then appropriated by actors in the global South and mobilised to advance selective interests.

The next chapter will show how, rather than accept uncritically the organising concept of South-South cooperation and the related rhetoric of mutually beneficial partnerships this concept advances, there is a need for greater scrutiny of initiatives that claim to challenge traditional development approaches. This requires moving beyond broad claims surrounding South-South cooperation initiatives and focusing on specific case studies, engaging in grounded research and tracing processes and actors involved in the implementation of such projects.

9. Conclusion: Rethinking ideal-type production models as a basis for development policymaking and research

The previous chapter argued that the complex spatial relations implicated in the construction of the Suez Economic and Trade Cooperation Zone (SETCzone) generate particular patterns of production, accumulation and exclusion that are the structural expression of the spatial relations identified. Specifically, the alignment of zone actors around a firm-coordinated upgrading-oriented approach deployed in the SETCzone has enabled the exclusionary access of Chinese firms in the zone, enabling these firms to maintain the vertical integration of their production chains. These dynamics have allowed the zone to operate independently of its local setting and to develop as an exclusionary node of value creation integrated into Chinese economic circuits and segregated from the host economy.

This chapter argues that there is a need to rethink the use of ideal-type production system models such as economic zones, GVCs and GPNs as a basis for development policymaking and research. The chapter develops a critique of the ideas and assumptions that underpin contemporary production system models based on the empirical findings of this research. The critique presented reinforces the conclusion reached that a shifting global economic landscape – characterised by deepening global connections, interdependence and flows- is not as one which continues to entrench historical global South–global North relations but one that entrenches unequal power relationships across diverse geographies in the global economy. This is because the circulating narratives that form the basis of international GVC interventions have become embedded into the development discourse and practice of some emerging Southern development actors amid an unprecedented rise in the value of manufacturing exports from the global south. As global trade shifts eastward, the chapter concludes that prospects for redressing imbalances in the global system will fundamentally be shaped by the ideas and prescriptive models that inform the internationalising practises of global South development actors.

This chapter is divided into three sections. The first section restates the arguments presented in this thesis. This section details the main questions asked, and provides an analytical synthesis of the evidence presented to answer these questions. The second section in this chapter synthesises from the findings of this research three main critique of ideal-type production system models such as economic zones and Global Value Chains/Global Production Networks with regards to their use as frameworks for both development policymaking on one hand, and research and understanding on the other. The final section of the chapter addresses the implications of these critiques of mainstream ideal-type development models, and the wider discussion of paradigm maintenance in Chinese Global Value Chain (GVC)/Global Production Network (GPN) development for future research in two main areas. First, the findings of this thesis open new avenues for research on emerging patterns in the spatial organisation of production in the age of GVCs/GPNs, as well as implications of, and alternative to these strategies. Second, the chapter highlights the need for further research on emerging trends in South-South development, and on the question of whether a new phase of development led by Southern actors provides an alternative to the hegemonic politics of the global North.

9.1. Restating the arguments

The central research question this thesis attempted to answer was how China's overseas Economic and Trade Cooperation Zone (ETCzone) model is translated and assembled within the situated context of Egypt's militarised development landscape. The first research sub-question asked focused on the policy model adopted in the Suez ETCzone, asking whether it converged or deviated from the traditional pro-market terms for managing development partnerships emanating from leading development institutions. The second sub-question addressed the development impact of the types of firm relations this policy model enabled.

Answering the questions of this research has involved navigating a number of important themes relating to GVC/GPN development in the context of China's growing global engagements, generating insights that shed light on important aspects of the particular case study presented while providing a guide for empirical investigation in analogous case studies. Examining these themes substantiates the core argument of this thesis. This argument states that there is a need to move beyond the fixed understanding of policy processes commonly utilised in development research, thinking and practice.

First, the research drew parallels between Chinese spatial planning in the SETCzone and the spatial development approach outlined in documents on economic zone planning issued by the World Bank. The analysis presented a conceptualisation of international development institutions like the World Bank as global norm-setters and knowledge-producers that determine the rules of engagement in the world economy, advancing development policies that are then taken up by governments worldwide. The analysis showed that the knowledges emanating from global institutions are rooted in the orthodoxies of neoclassical economics, and under contemporary economic globalisation have served to define the focus of development discourse on processes of coordination and exchange led by nodal firms (McGrath 2018, 519; Werner 2014). In a context where governments are increasingly competing for internationally mobile production activity, spatial policymaking in particular manifests the dominance and influence of global institutions. World Bank reports, documents, policy guide-books and practitioner guides act as vehicles for the diffusion of new ideas and the extension of new forms of expertise around spatial interventions that transform the physical, functional and organisational dimensions of space, and in turn change how production relations are ordered.

The SETCzone provides an illustrative example of such interventions. Developed by a Chinese zone operator, it is nonetheless modelled on an ideal-type economic zone model promoted by leading development institutions and implemented by governments worldwide. The evidence provided suggests that the logic underpinning the overseas ETCzone program is based on the notion of increasing the competitiveness of locations, opening up territories for investment and constructing environments responsive to the needs of mobile Chinese industry. Evidence from the SETCzone itself shows that the policy model implemented privileges a firm-coordinated approach as a tool to enable the integration of the host location into Chinese GVCs/GPNs over the types of interventionist government policies characteristic of domestic Chinese ETCzones. The Suez zone maintains a dominant GVC/GPN development paradigm that engenders a form of development that is sympathetic to the role of free enterprise, foreign investment and market forces over state-centred solutions.

The research thus shows that as the mantle of global development shifts from power centres in the global North to parts of global South, emerging powers like China maintain in some of their initiatives the rational assumptions and frames of thinking and practice that guide traditional development discourse. In discussing the implications of paradigm maintenance in Chinese overseas development models, the research nonetheless identifies distinctive features that shed light on China's own approach to domestic and overseas development. Designed to accommodate the capitalist imperatives shaping China's own trajectory, the SETCzone is spatially enclaved with few linkages to the host economy, allowing offshoring Chinese firms to remain vertically integrated with parent firms in their home regions, and for the latter to retain control of all stages of the value-adding process. In doing so the SETCzone assists Chinese efforts to boost domestic restructuring, encouraging the transfer of China's industrial capacity offshore as local industry moves to higher added production at home, addressing the problem of falling demand for Chinese exports and accelerating the opening up and development of China's sub-national regions.

The analysis also reveals emerging development trends in Suez associated with the SETCzone's establishment. An empirically informed analysis of the dynamics of assembling the SETCzone highlights land commercialisation and the militarisation of development as constitutive features of China's economic zone policy transfers in Egypt, contributing to political-economic and economic-geographic thinking about the relational geographies of Chinese globalisation.

The policy assemblage methodological-analytical framework deployed in the analysis of the SETCzone challenges conventional approaches to the study and evaluation of policy, in particular the policy frames that guide the implementation of ideal-type spatial-economic models like economic zones. By examining specific actors, strategies and spatialities implicated in zone-based development, the research demonstrates the inability of standard policy analysis to capture either the unanticipated effects or contingent logic of such interventions. Rejecting structural explanations that prioritise capitalist expansion by the dominant global North, the analysis also challenges a framing of contemporary global production geographies as being organised across global North/global South lines, contributing to our developing understanding of the possibilities and limits of South-South cooperation.

9.2. A critique of global production system models as a strategy for development

Based on the findings of this research there are three main critiques of ideal-type production system models such as economic zones, GVCs and GPNs that should cause us to rethink their use as a basis for development policymaking and research.

1- Maintaining epistemological centricity of the global North experience

The ideas and assumptions that underpin contemporary ideal-type zone models promote the epistemological centricity of the Anglo-American experience. These ideas, rooted in a GVC/GPN industrialisation paradigm further the notion that non-industrialised economies are subject to the same type of transformation as advanced economies, as processes of firm-led development operates upon their economic structures, social institutions and customs to generate positive development outcomes. The underlying logic of development through upgrading that underpins contemporary zones appropriately captures how these interventions are informed by the singular and unique histories of economies in the global North. This logic assumes that increasing the competitiveness of locations will provoke a causal relationship between upgrading in production networks and development (Bair and Werner 2011, 999), allowing firms to deliver on a wide range of collective wellbeing needs. Universally circulated policy programs by such international institutions as the World Bank strip this assumption of its specificity, advancing in their detached technocratic language a linear, stagist approach to human and economic development (Werner 2012, 132, 133).

While generating and promoting a fixed understanding of development, normative pro-market assumptions and idealised models around GVC/GPN development also function to position countries in the global South in relation to centres of industrial production in the North and, increasingly, emerging economic powers in east Asia. Amid processes of economic restructuring in the "post-industrial heartlands" of the North Atlantic, traditional frames of industrial organisation have focused on integrating "emerging" industrial locations in the global South, into firms networks based in industrialised nations through contracts and FDI (Werner 2012, 132). Manufacturing sites established in the global South to facilitate the diffusion of industrial activity are positioned as dependent on the capacity-building processes of their more industrialised partners, maintaining the structurally subordinate position of FDI-receiving nations within the global economy (Kvangraven 2021, 98; Neilson 2014, 60; Werner 2012, 142).

Thus while assuming that "lagging" countries and regions will ultimately follow a similar path to growth as those of more industrialised countries, economic integration models elide structural forces beyond the control of nation states in the South that shape the possibilities for their development and that guarantee subordination to capital accumulation. As a result, rather than enable convergence in the productive capacities of host regions, the shifts in global production geographies these models facilitate serves to reproduce and entrench socio-spatial unevenness and inequities (Mezzadri 2019).

The notion of "universalist trajectories of capitalist change" that economic development models imply (Werner 2012, 137) is one that has always been central to economic development and modernisation agendas in the global South (Bordoloi and Das 2016; Veltmeyer and Bowles 2017; Nilson 2017). This principle has been projected as universal through the programs and expert knowledges of the leading international agencies and institutions that dominate the development landscape and which are dominated by advanced industrialised countries: the World Bank, the International Monetary Fund and the World Trade Organization (Marois 2021, 122). As Mitchell notes, the universalist vision of marketisation these agencies promote formed part of the ideology of progress and development that enabled European domination of the world from the 19th century onwards (Mitchell 2002). This dominance continued to be maintained by the relationship between power and knowledge in 'development' (Roy 2010; Werner 2012), referring to the post-war project of interventions in the developing world set, against a backdrop of decolonisation, and promoting the centrality of the market and price mechanisms over other dimensions of social life (Litonjua 2008, 260; Veltmeyer and Bowles 2017, 3).

Marketised development constitutes a fundamental part of the modernity that late twentieth-century neo-imperialism brought to the global South (Petras and Veltemeyer 2016; Veltmeyer and Bowles 2017; Stichelmans 2016). Today, marketisation has become part of a broader theoretical discourse on globalisation, where the latter is conceived as "a natural process, inevitable, linear, progressive, evolutionary, another stage in the ineluctable march of humanity into the future" (Litonjua 2008, 260). The forms of knowledge generated by development institutions are produced and reproduced by political and economic elites, think tanks, corporations, lobbyists and technocrats, and have increasingly been appropriated by emerging actors in the global south in their own development cooperation programs (Gray and Gills 2016). In enacting processes of modernisation and globalisation, development and reform programs rearrange, reduce or efface local histories, creating a continuity of events in what constitutes a seemingly homogenous landscape of global economic change. At the same time they privilege sectors of capital determined by advanced, industrialised economies, who stand to capture returns from economic reform countries where their programs are implemented, thereby reproducing historical experiences of subordination (Werner 2012, 139).

And yet despite the above, the practical contestation over the meanings of development and how it is achieved and what constitutes improvements is rarely addressed in mainstream literature on globalised production (McGrath 2018, 516). This applies to the normative frames of industrial organisation and restructuring that are central to GVC/GPN development, and suggests the need to contest the workings of these models both in the approaches of policymakers and the analyses of scholars.

2- Setting the terms and boundaries for inclusion in and exclusion from globalised production activity

Ideal-type production system models such as chains, networks, clusters, corridors and zones suffer what has been termed in the disarticulations literature as 'inclusionary bias', centring certain processes and actors and while cordoning others out of the picture (McGrath 2018, 517). As one example of the erasures produced by such abstract spatial representations, economic zone models bring into view processes of value creation, capture and enhancement in arrangements led by lead firms at the expense of understanding the actions, agencies and contexts of indigenous firms, secondary or tertiary suppliers to lead firm networks, workers and local communities (Murphy 2019, 944; Mackinnon 2012; 231). What is further left out of the picture are the differentiations, erasures, ruptures and expulsions that occur in the course of interventions aimed at the implementation and physical development of such production system models. The creation of these 'constitutive exclusions' of firm-led development (Bair and Werner 2011b, 992; Mitchell 2002, 291; Mitchell 2007; Werner 2012, 132) are not secondary to processes of marketisation and globalisation, but are among "the conditions that enable commodity circuits to form and reform over time" (Bair et al. 2013:2544).

Economic zones are illustrative of how the dynamics of inclusion-exclusion unfold. A key function that zones serve is to organise economic activity into tightly coordinated production systems integrated into circuits of global production, trade and finance. To do so economic zones format 'inclusion-exclusions', which involves setting the parameters of the global market whereby certain national and regional resources and assets are relocated inside its boundaries to the benefit of the lead firms and their suppliers located inside these spaces. Select firms are thus provided with exclusionary and preferential access to technology, innovation, infrastructure and other economic rents while the spaces, communities, and exchange activities that are located outside the boundaries of the market are disarticulated from the gains of global economic activity and often impacted in negative ways that are not represented by the relevant models (Mitchell 2007, 261).

In other words zones facilitate the transfer of 'value' from wider society into closed circuits of global circulation (McGrath 2018, 511-513). Such value transfers are essential for the very notion of measurable economic success, reflected in the prices at which goods are valued and that allow firms to compete globally. Land-related value transfers, where making available to capital large areas of land, often involve land grabbing, revaluations, foreclosures, expulsions, and violent removal, among other forms of dispossession and destruction that often accompany globalising initiatives. Value transfer in other spheres includes devaluing particular forms of work, including where work is assigned value in racialised and gendered way; devaluing public goods such as water; and devaluing services such as electricity and subsidised energy (McGrath 2018)

Greater attention must be directed towards what lies outside the arrangements created in the implementation of spatial-economic models and beyond their representable and measurable outcomes. In other words to understand the full scope of the impact of orthodox policy programs, their underpinning economic discourse "should be analysed not in terms of the reality it represents (or fails to represent), but in terms of the arrangements and exclusions it helps to produce" (Mitchell 2007, 244). In particular, focusing solely on the common, measurable and representable aspects while ignoring the non-representable aspects of spatial-economic planning projects conceals the cost at which wealth is created and the uneven ways it is distributed in the construction of global markets. While increasing the competitive attributes of locations may very well increase the competitiveness of firms, enhancing their technological capability and know-how, the exclusions, disruptions and differentiations that are constitutive of globalised production are part and parcel of these transformations, and are often overlooked in standard models and modes of analysis.

3- Obscuring context-specific dynamics and impacts in the implementation of policy

Dominant pro-market economic development discourse envisions a homogenous and disembodied reality, ignoring place-based processes and failing to fully capture the impact of market interventions as they occur within specific geographical contexts. In presuming a single guiding rationale for policy and development, economic discourse tends towards *macro-reductionism* (Savage 2020, 323), inevitably overlooking externalities, meanings, social ties and other complexities and outcomes that are both implicated in and result from policymaking and that are not captured in its statements (Callon 2007). Absent the ability to account for the range of considerations, entanglements and effects of policy processes beyond what economic language is capable of describing, it is important to question the accuracy and adequacy of market-based economic development discourse and its normative metrics, descriptions and classifications (Mitchell 2002, 234).

More specifically, market-based economic-geographic models employ a Euclidean, deterministic and one-dimensional treatment of space, which portrays processes of spatial-economic restructuring in an abstract, disembodied way. This treatment assumes that a single objective representation of spatial processes, and of place is possible (Gaham and Healy 1999). In the context of GVC/GPN development, the implementation and repetition of such models as growth poles, clusters or chains across diverse geographic and historical contexts is portrayed as an inevitable and seamless deployment of ideas, frames and practices. Spatial models and the idealised conceptions of space they envision, are also viewed as being capable of shaping the social and economic world in a linear cause and effect way (this refers to the assumption that competitive zone regimes provoke development through upgrading, discussed on chapter 3). Relations, interactions and power dynamics unfolding beyond the economistic and technical processes of spatial planning are obscured and deemed irrelevant.

This static understanding of socio-spatial relations presuppose a kind of technocratic determinism and internal rationality of knowledge forms (Graham and Healy 1999, 629). As noted by Litonjua (2008), such a framing "removes issues of agency, power, ideology, strategy, and conflict from the scene" (Litonjua 2008, 254). However, spatial economic development is not merely a technoscientific process with safely guarded boundaries between the technical and the political, the economic and the social. The translation of abstract models and representations across geographic space is a strategic and highly political performance of standardised norms and processes. Highlighting the common representable aspects of GVC/GPN-oriented economic zones programs – where firm activity is reduced to typologies of relationships and quantifiable outcomes- thus ignores the complexity and dynamic conditions in which policies are realised, and therefore the varied ways on which societies, and the global sphere, are reorganised as a result.

This thesis has identified a number of emergent trends associated with the implementation of ideal-type zone model that would be concealed by using standard policy and economic-geography methods. This includes new global patterns related to the emerging nature of Chinese power; emerging regional trends such as cross-border regional industrial cooperation integrating subnational locations into Chinese production networks; and place-based transformations such as land commercialisation as a strategy for development under Chinese-Egyptian zone-based cooperation. As the research has demonstrated these processes are not secondary to the development of economic zones but critical to understanding the consequences of their introduction in the broader context of China's rise.

To summarise, the main critiques of mainstream ideal-type production system models in the analysis above include advancing Northern-centric notions of progress, setting the terms for inclusion and exclusion from development in both the sites of intervention and sites of research, and obscuring relevant context-specific factors and outcomes. To address these shortcomings in policy research, this thesis has suggested alternative methodological practices that redefine not just what, but how to study in the context of economic transformation and development (Murdoch 2006, 1). A policy assemblage methodological-analytical approach provides the tools to evaluate the effects of zone-based development beyond agreed-upon metrics for improvement. Assemblage provides a framework for understanding how institutional policies are translated within situated contexts. In doing so a policy assemblage analysis reveals both the central forms of knowledge that underpin spatial-economic policymaking, the complex ways in which policy processes are enacted and the constitutive exclusions of market-oriented policymaking.

9.3. Avenues for future research

The assemblage critique of mainstream development models presented above and the wider discussion of paradigm maintenance in Chinese GVC/GPN development in this thesis have implications for future research in two key areas. First, the analysis presented in this thesis raises a number of pertinent questions around contemporary modes of organising production relations in space. Within such debates there is a need to consider implications of, and alternatives to the narrow contemporary focus on the functions and operations of foreign lead firms as a strategy for economic development. Second, amid an increased spatial reorganisation of production relations with the shift of global manufacturing from the global North to the global South, further research is needed on emerging trends in South-South development cooperation. Specifically, the research also opens up new avenues for thinking about whether a new phase of development led by Southern actors will provide an alternative to the hegemonic politics of the global North. Studies on the drivers and impact of China-Africa cooperation can be situated within this research agenda. The following section highlights avenues for future research in both of these areas.

1- Alternatives to contemporary modes of organising production relations in space

This research adopts a critical perspective on development and its constitutive structures of knowledge, focusing on the discourses that inform policy, and highlighting the ways in which contemporary development policymaking reshapes places, political processes and modes of economic organising. The objects of policy at the centre of the analysis are GVCs/GPNs, which come into being through spatial processes that, among other outcomes, change who has power over and rights to use public resources, including land. A GVC/GPN approach to development maintains notions of private sector-led development and ideas around linear material progress through innovation and modern technology. The forms of globalised production it has engendered are implicated in increased inequality and social marginalisation within and across countries, where the most vulnerable are worse affected by the deepening of economic and spatial disparities. Alongside inclusion and distributional issues, there are a range of socio-political and increasingly ecological problems that accompany a paradigm of development that relies on processes of coordination led by lead firms, demonstrating the vast distance between theory and reality in the practice of development.

The case study presented in this research provides evidence of the above. Most of the Chinese enterprises concentrated in the SETCzone are manufacturing investments. Theoretically, the value-added of FDI invested in the industrial sector is should be much higher than the value-added of FDI invested in any other industrial sector as it creates more sustainable jobs, adds more sustainably to GDP and helps in the country's balance of payment (Shenety, Cairo, 2018). But a close analysis of firm-dynamics in the SETCzone suggests that, while Chinese manufacturing investments may have enhanced the global market integration of the Suez region, generated jobs and contributed to export growth, they have failed to catalyse industrialisation and structural transformation in the surrounding region, let alone provide a basis for inclusive development.

The findings of this thesis raise questions around the capacity of GVCs as an approach to development to engender sustainable and inclusive futures. Specifically, there is a need to investigate whether the potential gains from enabling countries to participate in global markets and diversify exports might be offset by structural inequalities resulting from the pursuit of low-skilled activities as an entry point into GVCs, the absence of opportunities to upgrade and move into higher value-added activities and ever-diminishing returns for suppliers and workers in the face of rising competition. Given the reproduction of these structural imbalances in the dynamics and impact of Chinese manufacturing investments in particular, another important question this research raises is how China's rise as a manufacturing power impacts the future of industrialisation. Further to the above, it is important for future research to consider types of state development policies that can harness global linkages while protecting the rights and welfare of people and the environment. Amid increased evidence of the challenges of offshoring in GVCs however, an important question in this regard is whether GVCs/GPNs remain a viable development strategy to begin with.

Alongside the developmental issues raised in this research, highlighting militarism as a condition of possibility for global market integration in Egypt leads to questions around prospects and means of achieving more democratised and participatory forms of development. This is a particularly significant question for research on authoritarian contexts more broadly where economic development policy become plagued by elite capture, benefiting elite partnership but excluding the larger population from the gains of globalised economic activity. Thinking about how to achieve more democratic forms of development requires the utilisation of approaches that consider the role of contentious politics and social movement struggles in the making of development (Kroger and Lalander 2016). This is especially pertinent in an age of popular struggle and social contestation of capital accumulation and economic growth models driven by labour, youth, indigenous and civil society groups and social justice movements, which authors argue "cannot simply be swept under the analytical carpet, but rather must be carefully and systematically recognised and studied in order to explore how real alternatives and challenges to the prevailing global status quo are unfolding through the actions of these movements" (Gray and Gills 2016, 563).

Finally highlighting the constitutive exclusions and disarticulators of GVC/GPN development provides a useful starting point for future research on possible alternatives to contemporary development discourse with its narrow focus on the functions and operations of lead firms. Particularly in a world of precarious global production and supply chains there is a need to consider new approaches to development focused on strengthening the capacities of local and national economies, and that prioritise the needs of people and communities over the needs of corporations. One key contribution of this research to alternative theories, frameworks and methodologies in development research concerns its argument for the need for greater sensitivity to context-specific factors that shape development trajectories, and hence the heterogeneity and complexity of development policy-making processes. Another contribution concerns highlighting the role played by governing authorities and associated institutions in aligning actor groups behind shared priorities, organising and structuring relationships between them.

Based on the findings of this research therefore, there are three main points that should be taken into considerations in future research in the types of policies that can achieves more territorially balanced economic development. First, there are no uniform policy options or universal panacea. Spatial-economic development initiatives should be situated within a comprehensive understanding of the capacities and resources of a given region with a focus on building domestic capability. The second point concerns the need to foreground distributive and socio-political issues in development policymaking. Global linkages should be harnessed towards creating more democratic and self-reliant economies that protect the rights of local industries and communities and support inclusive wellbeing in spatial planning and development. The third point relates to the role of national and regional authorities and government agencies in establishing and supporting their own national approaches to development.

In thinking about alternative approaches to spatial-economic development therefore, this thesis proposes a multi-disciplinary research agenda that draws on a range of critical schools of thought that are increasingly at the heart of development debates. This includes postcolonial economic-geographic scholarship, which recognises the role that the epistemic dominance of global institutions at helm of economic policymaking plays in structuring inequalities (Werner 2012). Political economic scholarship provides a necessary emphasis on the importance of leveraging state capacity, institutions and finance for socially just transformation (Marois 2021). Decolonial perspectives and localised knowledge decentre mainstream approaches to economic policymaking by studying and incorporating a diversity of perspectives in development policymaking (Roy 2010).

2- Emerging trends in South-South cooperation in an age of GVC/GPN development

The historic global shift in production and manufacturing from the global North to the global South has given impetus to debates on whether emerging South-South alignments constitute an alternative to the hegemonic politics of the global North (Gray and Gills 2016, 558). Of relevance to this research are studies on whether the altered economic geography of the world will enhance the potential for industrialisation in the global South. As noted in chapter four most of the research in this regard has centred the role played by China as the driver of South-South flows and the largest expansionist power in the global South.

The majority of academic perspective on China's growing engagements in the global South fall into two camps. On one side of the debate there are those arguing that as China increases its sphere of influence there is evidence to suggest that Chinese trade and investment flows are reproducing the existing development practices of global North actors. On the other side of the debate are those who see that the rapid industrialisation, increasing economic growth, and growing financial capacity of actors like China pose a challenge to the dominant structures of global capitalist development, encouraging new alignments and changing trade and investment patterns.

For the most part therefore the current terrain of debates revolves around the question of whether or not emerging powers like China are leading a transition in the structures of a world economy organised around the principles of free-market globalisation. This is an important to consider given the shifting power dynamics within the global economy, as China in particular strengthens its financial reach and geopolitical influence through investment, trade and lending. There is scope for further research in this regard beyond studies that privilege structural forces, either reproducing the binary of western, USA-led hegemony versus a progressive countervailing, anti-imperialist Southern block led by China on one hand (Bello 2014; Garcia and Bond 2015; Pieterse 2011), or centring underlying process of capitalist accumulation requiring the further reproduction of capital and shaping the emerging world order on the other (Robinson 2015; Vanaik 2013).

One of the arguments presented in this research concerns the consolidation of a global consensus on a more open world economy where China seeks to advance the principles of free trade by influencing global governance towards maintaining the norms and institutions of the global economy[6]. Rather than being co-opted by the forces of capitalism, the research argues that Chinese actors appropriate prevailing development ideas and practices for specific gains linked to objectives determined at a national level of policymaking. By highlighting the unique imperatives shaping China's global engagements, an important avenue for future research this thesis provides involves examining multiple trajectories and substantive differences within Southern groupings, such as BRICS for example. Rather than asking whether emerging actors, as a monolith are capable of challenging the dominant institutional architecture of the global economy such an approach would shed light on distinct national interests driving

[6] Chapter 4 details China's efforts to steer global governance towards creating a multilateral legal framework for the promotion, protection and liberalisation of investments both during its leadership of the G20 and under the auspices of the World Trade Organisation (WTO). The chapter argues that the Chinese government's support for investment liberalisation is driven by its emergence as a leading global investor.

transformation in the global economy. In doing so it would highlight complex patterns of economic globalisation beyond the politics of a North-South divide and establish heterogeneity within the analytical category of the "South".

An approach that prioritises plurality can also potentially reveal divisions in key demands on the reform of institutions of global governance system, identifying particular projects benefiting from maintaining the structures of free-market globalisation as well as new projects under construction with potential to impact far-reaching structural change (Gray and Gills 2016; 562, 264). Another example of emerging Southern actors maintaining rather than challenging the dominant structures of global development is provided in research exploring Brazil's activism to end US and EU dominance at the WTO, a core institution in global economic governance. The research found that Brazil's objective from enhancing its position in the WTO was to further expand and liberalise global markets, driven by the rise of its export-oriented agribusiness sector, rather than to create a fairer global trading system in solidarity with developing countries (Hopewell 2013). Further research is needed on the particular agendas driving Southern government efforts to bolster the stature of existing institutions, as well as new forms of inequality, subordination, marginalisation and exclusion manifesting in the rise of these actors.

As this thesis has shown however, there is an essential need for future research to think beyond a view of the state as a unitary force, and instead examine the complex arrangement of interests and imperatives underpinning state action vis-à-vis other governments and the international system as a whole. Examining how different actors and realms interact in the formation and diffusion of national policy has implications for understanding the nature and impact of the economic and political power of rising actors such as China, both at the level of global policymaking and at the level of situated interventions. For example, this research has shown that China's overseas zone program mediates a variety of interests, including those of market-seeking Chinese capital driven by traditional FDI motives, and subnational government actors seeking to leverage the competitive advantage of Chinese regions. The actors enrolled in the zone program grant it the distinctive character of acting as a platform for cross-border regional cooperation within a broader national program aimed at rebalancing China's economy by exporting surplus capital overseas. A greater understanding is needed of the grounded forces and constellations of actors reinforcing the intentions and actions of governments active on the global stage for a more nuanced and textured analysis of a restructuring global economy.

Finally, this research has shown the importance of considering the relational dynamics and complex interactions that structure and uphold global development partnerships and market relations more broadly, but that are rendered invisible by assessments that consider only the measurable impacts of such initiatives. Examining how South-South relations unfold in host countries requires unpacking complex domestic structures and how they interact with the nature of international interventions by rising powers to reveal emerging trends that are part and parcel of these emergent relationships. This research has highlighted how the intersection of China's ambitions in Suez with Egypt's military-led vision for development in a context of low productivity and low levels of market integration has intensified land commercialisation as a key driver of development.

These entanglements have rendered both land-commercialisation and the militarisation of development key aspects of China's economic zone initiative in Egypt. Elsewhere however research on increasing international financial flows in infrastructure to Africa has also revealed an association between infrastructure construction and growing real estate investments opportunities (Goodfellow 2019) raising the question of whether such associations might constitute an emerging trend regionally. Similarly, an analysis of the growing regional political and economic influence of leading Gulf Cooperation Council (GCC) states' finds that their adoption of a multi-pronged approach that aligns the objectives of military intervention, foreign aid and private capital investment has resulted in the securitisation of GCC aid and development interventions in the Middle East and North Africa region (Ziadah 2019). These shifts have occurred in conjunction with the capture of state power by the Egyptian Armed Forces, and there is scope for such interventions to be further examined in parallel with the dynamics of militarised development in Egypt.

More broadly, there is room for further research using innovative conceptual, epistemological and methodological tools to address complex and contingent geographies of change within distinct locations across Africa and make connections with parallel transformations elsewhere. Such studies would serve to provide a richer understanding of emergent development patterns associated with new agendas in development within changing economic geographies on a global scale.

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