SHADOWS BENEATH THE WIND: SINGAPORE, WORLD CITY AND OPEN REGION

by

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Abstract

This study examines the production of a new regional space known as the Growth Triangle. The Growth Triangle represents a (re)integration of the economies of Singapore, the Riau Archipelago in Indonesia and Johor State in Malaysia. It is argued that the Growth Triangle should be seen as an 'open region.' The open region is affected by a wide range of 'external' influences and is open to shifting representations which are important to its unfolding. The study takes on the interpretation of the open region through a consideration of the unstable and amorphous realm of 'middle space.'

Middle space is manifold. It includes: 1) the middle spaces between the global and the local; 2) the middle spaces between conceptual divisions (e.g., urban/rural and labour/capital); and 3) the middle spaces of circulation (i.e., connections between individuals, firms and places). The triangulation of these three arenas provides a heuristic device for the examination of the changes sweeping the Growth Triangle.

The analysis moves from a time when the region's global niche was based on the movement of goods to more recent developments where-in the movement of information and capital are crucial. The global flows of information and capital are the 'winds' of the title. The region, and various ways of conceptualizing it, are the 'shadows.'

The main findings are that: 1) global change must be seen in terms of local roots and consequences; 2) local differentiation and the representation of difference are increasingly important, even in the frame of globalization; 3) analytic strength may be gained by dulling the edges of interpretive constructs (such as information or labour); 4) there are strong connections between the circulation of goods, people, money and information (spatial

interaction) and the generation of new and distinct geographies (areal differentiation); and 5) there are strong linkages between Singapore's shift towards advanced world city functions ('intensive globalization') and the mega-urbanization of the near-by international hinterlands ('extensive globalization'). To understand each of the three corners of the Growth Triangle one must engage Singapore as a World City and as an Open Region.

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CHAPTER I

AN INTRODUCTION: ISLANDS IN THE STREAM, THE OPEN REGION

A. ISLANDS IN THE STREAM

My interest in Singapore was first sparked by changes occurring some distance from the heart of the Republic, outside the city-state -- in small fishing villages in Indonesia's Riau Islands and in the plantation settlements of Malaysian Johor (see Figure 1.1). These two areas, which lie across Singapore's borders, were until very recently, in comparison to Singapore, economic backwaters.

Today, the landscapes of Johor and the Riaus are the sites of tremendous transformation. New industrial and recreational complexes are being carved out of plantation and jungle lands. Older landscapes and space-economies are literally being pulverized as new forms of integration occur and as new spaces of economic activity are produced.

The previously fairly homogeneous rural economies (largely agriculture and fisheries) of Johor and the Riaus are exploding into a frenetic multitude of new activities (from theme parks to petro-chemical complexes). The opportunities abounding in the regional reformation are drawing in large numbers of migrants and investment dollars into once remote and rural settings. For example, by 1995, Johor will have become home to twenty-eight new Industrial Estates developed since 1985; it will have 8-12 new golf courses (with pledged investments

Figure 1
Johor, the Riaus and Singapore

totalling US$6 billion),[1] numerous resorts (including the US$1.5 billion Desaru project[2]); an increase of 3,600 hotel rooms[3] (not including the new 500 room five-star Putari Pan Pacific); and countless smaller developments strung out along the state's by-ways.

The increasingly riotous landscapes of Johor and the Riaus present the observer with a poignant and telling counter-point to the finely orchestrated economy, polity and geography of Singapore. This mix of apparent polarities is not an accident, but a critical element of integration.

It was ironic that each time I set out to the Riaus from the Singapore ferry terminal in search of an understanding of the changes affecting the islands I was leaving more answers behind than I would find in the archipelago. As the ferry left the city-state behind, its wake pointed to some clues as to the sources of transformation at its destination. Rounding Singapore's Sentosa Island, one sees telecommunication dishes peering upward nestled beside new five-star resorts set to attract a global business elite. Further along, the vista of the skyline and port are striking. They attest to the rise of international financial services and the emphatic development of Singapore as a 'global hub.'

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[1]/ Straits Times, 20/4/92:36; (Mal) Business Times, 25/07/92:6.

[2]/ Though this development is now undergoing some difficulties, it evinces the scale of the growth mentality in the state. Desaru, as originally conceived, would have had four golf courses (designed by Greg Norman, Arnold Palmer, Gary Player and Jack Nicklaus) and an Arnold Palmer Golf Academy, Nick Bollettieri Tennis Academy and John Bertrand Yacht Club. It was intended to have nine hotels, including a six-star all-suite resort, 4,000 holiday homes, a winter wonderland, including artificial snow, and other theme parks. It was planned to attract some 1.8 million tourists per year. - Johor State Economic Development Corporation (1990) Johor Investment Guide, Sept/Oct 1990, page 10. See also the detailed discussion of the travails of Desaru in Singapore Report on the Growth Triangle, 9/4/92:3.

[3]/ Straits Times, 14/4/91:9.

Singapore's global niche[4] is changing and with it the niches of the Riaus and Johor. The result of this realization has been that the bulk of my research has been focused on Singapore. I will be arguing that an understanding of the profound changes sweeping the Republic's hinterlands must begin with an understanding of the changing (global) niche of its core.

Singapore has long been deeply enmeshed in the global economy. It has been an important stop on the global assembly line of the New International Division of Labour (NIDL). The streams of intermediate products coming through Singapore were the basis of its spectacular growth (averaging over 8%/annum over the last 25 years) and the remaking of the city's landscapes and the lives of its population. The city-state's bustling port, efficient industrial estates and ubiquitous workers' housing blocks are the physical manifestations of its deft identification of a niche within the global economy -- a propitious location of the island within the stream of global commerce. However, earlier successes are proving hard to maintain.

Singapore, along with the other Asian Newly Industrialized Economies (NIEs) of Taiwan, South Korea and Hongkong, is entering into a new facet of its mercurial development trajectory. The Asian miracle-economies' societies, polities and economic systems have come to be honed on a diet of nearly continuous rapid growth and industrial transformation.[5] The successes of the past are pushing up costs and leading to changing values within the state apparatuses and the civil society to some extent beginning to marginalize the traditional growth core of the economy -- export-oriented manufacturing of intermediate products. As well, the stream of the NIDL is meandering and splitting. The city's location within the global

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[4]/ I do mean to use the term niche in its ecological sense. In that manner, it connotes interdependency and interaction between an organism and its environment -- each affecting the other.

[5]/ For an impressive overview of the 'Miracle' see World Bank (1993) The East Asian Miracle: Economic Growth and Public Policy, New York: Oxford University Press. Or cf. F. Deyo (ed.) (1987) The Political Economy of New Asian Industrialism, Ithaca: Cornell University Press and/or W. Bello and Stephanie Rosenfeld (1992) Dragons in Distress, New York: Penguin Books.

production line is no longer so sure as new sites of production are coming to the fore.[6] Singapore and the other NIEs are all on the edge of profound transformations as they become what one might call 'POst-Industrial NIEs' (PONIES).

What will happen if these economies 'de-industrialize' as rapidly as they once industrialized? What locations within the streams of global commerce can they identify, colonize or create in order to solidify their ascendency and maintain their momentum? And how can each of these questions be answered with any surety in the face of apparently accelerating global economic

change and increasing instability? Such are the questions facing Singapore today as it attempts to renegotiate its global niche.

Despite the lack of certainty about what precisely the future may hold, it seems clear that the state in Singapore is steering a course into the most rapid parts of the cataract, aggressively inserting the nation within a new geography of global circulation. Although manufacturing remains important, Singapore's vision of its Next Lap[7] is to further develop the city-state as a finance, information and business centre, or what the 1991 Strategic Economic Plan calls a "global city."[8] Yet, to become a global city Singapore needs a hinterland.

Today, Singapore's niche as global centre is very much predicated on growing regional ties. This is something of a change. Over much of the last 25 years (circa 1965 to late the

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[6]/ See for example, Julie Ross (1992) "Electronics Sourcing, Transport Options Light-Up," Global Trade, 112 (4), pp. 40-43.

[7]/ The Next Lap is a People's Action Party policy document focused on taking Singapore to the 'super-league' of developed nations. The twin goals involve reaching a GDP approximating Switzerland's current level and simultaneously increasing the quality of life in the island republic. Republic of Singapore (1991) The Next Lap, Singapore: Times Editions Ltd.

[8]/ Republic of Singapore, Ministry of Trade and Industry (1991) The Strategic Economic Plan: Towards a Developed Nation. Singapore: Ministry of Trade and Industry, page 8.

1980s), Singapore occupied a peculiar niche among the developing nations of Asia. It was considered a model of effective development policy and an almost unique case -- a city-state.[9]

In the combination of these roles Singapore is matched only by Hong Kong and the comparison is instructive. Both economies once found it advantageous to lack hinterlands (and related development costs) as they became 'production platforms' in the nascent New International Division of Labour. Today, both Singapore and Hong Kong are reaching out to their once estranged peripheries to provide an economic base for further development. Hong Kong's increasingly service-based economy is now being driven by the development of its new frontier in southern China.[10]

The Singapore government, with its tradition of heavy involvement in economic affairs, has set about trying to create a new economic/spatial frontier of its own in the nearby areas of Johor and the Riaus. The government of Singapore has aggressively sought out and supported investors looking to develop recreational and productive capacity in the city's transnational hinterland.[11] The push to develop a new frontier is linked to the development of a regional, transnational production and consumption complex known as the 'Growth Triangle.'[12]

9/ The term 'city-state' is a loaded one, especially when approached from a European perspective. In broad outlines the term fits: Singapore lacks a national hinterland and is highly dependent on trade for its sustenance.

10/ In fact the Hong Kong case, with its links to the Shenzhen FTZ and Guangdong province, is on a much larger scale than the Singapore situation. It is discussed in more detail below. See George Lin (1995) Regional Development in the Zhujiang Delta, 1980-1990, Unpublished Doctoral Dissertation, University of British Columbia. For a discussion of the service niches of the two nations see DBS Bank, Economic Research Department (1990) "Hong Kong and Singapore: Competition or Complementarity?" Singapore Briefing # 13, April 1990.

11/ Interview with Singapore Economic Development Board, August 1992.

12/ For useful overviews of the early development of the Growth Triangle see Lee Tsao Yuan and S. Kumar (eds.) (1991) Growth Triangle: The Johor, Singapore, Riau Experience, Singapore: Institute of Southeast Asian Studies/Institute for Policy Studies; Caroline Yeoh, Lau Geok Theng, Mark Goh and Julie Richardson (1992) Strategic Business Opportunities in the Growth Triangle, Singapore: Longman Singapore Publishers; Ng Chee Yuen and Wong Poh Kam (1991) "The Growth Triangle: A Market Driven Response?" Asia Club Papers, 2, pp. 123-152; James Parsonage (1992) "Southeast Asia's 'Growth Triangle': A Sub-Regional Response to Global Transformation," International Journal of Urban and Regional Research, 16 (2), pp. 307-317; or Martin Perry (1991) "The Singapore

Sitting over the complex melange of change and integration which characterizes the region of my concern is a deceptively simple concept with deceptively clear outlines -- a triangle of cooperation between Singapore, Indonesia and Malaysia. The idea of the 'Triangle of Growth' was first suggested by current Singapore Prime Minister (then Deputy PM) Goh Chock Tong in 1989.[13] The triumvirate is conceived of as a vehicle for interweaving the differing comparative advantages of Singapore, Johor and the Riaus to increase the attractiveness of each to global investors. The synergistic utilization of comparative advantages, it is argued, will increase the well-being of the individual elements and the collective -- thus, the concept of the 'Growth Triangle.'

The Growth Triangle is seen as presenting a unique investment opportunity as the three nations work together in order to enhance global competitiveness and returns to investors (i.e., turning comparative advantage into competitive advantage). The Growth Triangle is being represented as an example of a fortuitous melding of proximity and difference. The location of Singapore is unique in terms of its access to two 'third world' production and leisure sites so close to an extremely advanced city (about 3/4 of an hour from the CBD by surface transport). As the Far Eastern Economic Review has put it,

> Singapore can provide highly developed telecommunications links and management expertise. Batam and Johor can offer abundant land and cheap labour. Together, they can produce the kind of business environment no longer available in Asia's newly industrialized countries.[14]

Growth Triangle: State, Capital and Labour at a New Frontier in the Global Economy," Singapore Journal of Tropical Geography, 12 (2), pp. 138-151.

[13]/ Straits Times, 21/12/89:1.

[14]/ Far Eastern Economic Review, 03/6/91:34.

The Growth Triangle is a beguiling research topic. It is at once a vague marketing tool employed to attract investment and a key element (and expression) of the transformation of regional spaces. It was with the pronouncement of the Growth Triangle concept that the changes in the Riaus and Johor took off. Further, although the Growth Triangle transects international borders and is composed of extremely divergent landscapes and livelihoods, it is none-the-less an increasingly integrated region.[15] As this study documents, understanding the changes currently occurring in Singapore, Johor and the Riaus requires an approach which emphasizes regional interdependencies.

The elements of the regional ensemble are also characterized by very high levels of connectivity with 'external' markets. One is, therefore, faced with a conundrum: regionalization seems to be occurring at the same time that the 'global economy' is increasingly pervasive and invasive. These two trends must be reconciled. A concept which attempts just such a reconciliation is that of the open region.

B. THE OPEN REGION

The term I have developed to capture the theoretical space of the meso-scale in the context of shifting streams of circulation and perception is the 'open region.'[16] This concept gets

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[15]/ I understand the aversion by writers such as Storper and Walker to the term region. They prefer the term 'territory' which they feel "is less theory laden... denotes functional integration rather than bounded spaces" and leads them nicely to the concept of territorial production complexes. However, I prefer the concept of the region. I like the fact that is grounded in more than just industrial production (such as distribution, consumption and cultural specificity), and the fact that it does evince some sense of a unique node on the surface of the earth. See M. Storper and R. Walker (1989) The Capitalist Imperative, New York: Basil Blackwell, page 183.

[16]/ Since developing this term in an effort to interpret the Growth Triangle case, I have come across a broad base of theoretically derived support . The idea of 'opening' the region has also been annunciated by David Slater who has noted how "Ultimately, concepts of the regional are most usefully viewed as unfixed and open." - D. Slater (1989) "Regional Capitalism and the Regional Problem," in Thrift and Peet (eds.), (V. 2) New Models in Geography, Winchester Mass.: Unwin-Hyman, pp. 267-294, page 283; Doreen Massey has emphasized interconnections and external linkages as fundamental to place formation (admittedly not explicitly 'the region'). As she writes, "Places viewed in this way are porous and open." Massey (1993) Space, Place and Gender, Cambridge: Polity, page 5; see also pages 121 and 152; Ray Hudson (1990) "Rethinking Regions: Some Preliminary Considerations on Regions and Social Change," in J. Hauer et al (eds.) Regional Geography, New

at the sited and integrated, but unbounded nature of regional formation within contemporary global capitalism.[17] The idea of openness is meant to convey both the level of interaction (circulation) with the 'outside' and the variability in the way a region is conceived and perceived.

One needs to turn the presence of 'cross-boundary' dynamics away from being 'problems' for regional research and towards being key elements of research. The Growth Triangle region is a focal point of numerous overlapping and cross-secting networks and pathways (e.g., Chinese kinship ties and the day to day movement of the people of the region). My research tries to evoke this multiplicity of connections through emphasising the circulation of goods, people, capital and information.

It is the interlaced hierarchy of spaces which needs to be the content of regional analysis. As Giddens writes, such a web of relations is unlikely to be bound by clean perimeters,

> All societies both are social systems and at the same time are constituted by the intersection of multiple social systems. Such multiple systems may be wholly 'internal' to societies, or they may cross-cut the inside and the outside forming a diversity of possible modes of connection.[18]

York: Routledge, pp. 67-84, page 72; see also R.J. Johnston (1990) "The Challenge for Regional Geography: Some Proposals for Research Frontiers," in the same volume, pp. 122-140, page 131; and M.B. Pudup (1988) "Arguments Within Regional Geography," Progress in Human Geography, 12, pp. 369-390.

[17]/ I have chosen this term rather than one of the many possible alternatives for a number of reasons. First, I am uncomfortable with some of the theoretical superstructures which encumber such terms as 'late capitalism' or 'disorganized capitalism,' etc. See E. Mandel (1975) Late Capitalism, London: Verso; and S. Lash and J. Urry (1987) The End of Organized Capitalism, Oxford: Basil Blackwell. My purpose is not so programmatic as to wish to construct a model of 'capitalism' as a unit. Rather, I take contemporary 'capitalism' to be an increasingly pervasive marketplace in which the 'spaces of accumulation,' though always important, have leapt to the fore. Secondly, I am avoiding modelling a new form of capitalism as such an act would evince a disjuncture with the past rather more than I would wish to. The current developments are exaggerations of processes which have been in place for some time.

[18]/ A. Giddens (1984) The Constitution of Society: An Outline of the Theory of Structuration, Berkeley: University of California Press, page 164.

As the case studies document, increasing 'external' integration does not necessarily render regions indistinguishable but rather is implicated in their ongoing differentiation: both within the region and in terms of wider markets. Differentiation helps to distinguish the way regions are nested within the global economy and underlines the continuing utility of regional analysis even in a 'globalizing economy.' This study emphasizes circulation and spatial interaction as a key interpretive motif for understanding areal differentiation.[19]

The emphasis on the region as a distinct unit of analysis is not intended as an argument for an exceptionalist approach. Indeed, the type of analysis which best illuminates regionalization and globalization considers how distinct regions are nested within an overarching totality.[20] Distinctions and differences (often seen as unique regional attributes) can tell one as much or more about general ('global') processes as can commonalities. This is a key argument of the thesis as a whole.

The modifier 'open' also implies the variable manner in which regional entities may be conceived or represented. As I will demonstrate, the construction of the Growth Triangle as

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[19]/ An emphasis on circulation is occasionally positioned as oppositional to the tradition of areal differentiation. However, I intend to illustrate the critical linkages between changes in circulation and local contingencies and variability: i.e., the links between movement (circulation) and grounded change (e.g., differentiation). Peet and Thrift (1989) op cit, pages 21-22, suggest that two key elements of contemporary geographical analysis must be a focus on the impacts of transportation and communication innovations (i.e., on circulation) and 'locality.'

[20]/ Regional studies and the school of areal differentiation have a tradition of emphasizing the openness of their arenas of analysis despite the caricatures which are often drawn. Hartshorne took pains to emphasize the analysis of interaction (see especially his refinements in R. Hartshorne (1959) Perspectives on the Nature of Geography, Chicago: Rand McNally/AAG, pages 14, 19, 116. However, Hartshorne moved his argument away from differentiation which was the locus of the 'exceptionalist' (i.e., idiographic) attack towards 'areal variation.' (See the interesting article J. Agnew (1989) "Sameness and Difference: Hartshorne's 'The Nature of Geography' and the Geography of Areal Variation," in J.N. Entrikin and S.D. Brunn (eds.) Reflections on Richard Hartshorne's Nature of Geography, Washington: AAG, pp. 121-140.)

I have found great empathy for what Hartshorne was pointing to. However, I feel the retreat from differentiation takes the action verb out of the process of regional formation. Secondly, although Hartshorne makes a distinction between 'the regional method' and regional geography he is not very clear in outlining either (see for example, 1959:129-130). His basically positivist leanings could not allow him to fully open up the 'object' of his quest and so he became somewhat mired in the search for a paradigmatic object.

a 'mythical' investment space (as presented to investors) is an 'open' region in this sense as well. That is, it is open to appropriation as a representation of space. The manner in which the region is conceived is crucial to its unfolding (as outlined in Chapters VII through X).

There is a deeper utility to the model of the open region. It informs how we categorize our world. The categorization and delineation of sets of uniformly bounded social variables is doing much more to obscure the dynamic nature of change than to inform. Schoenberger effectively summarizes the move away from categorical frames in writing,

> To analyze these processes, [of regional growth] recent theory has cut across the boundaries compartmentalizing traditional analyses. The conceptual divides between industrial location and regional development, the local and the global, the micro and the macro, the spatial and the aspatial, have all been eroded. Instead the inter-relationships among these have been brought to the fore.[21]

I will be arguing that by opening up several basic analytical constructs a good deal of insight may be gathered from their frayed edges. It is the middle, shadow realms between space/place, capital/labour and urban/rural and the tensions between such constructs that a dynamic and critical regional geography may be developed.

Stepping outside the boundaries of conventional categories such as urban and rural or the bounded region towards aspects of the way space is shaped through circulation and imagination allows for greater insights into specific arenas of change.[22] The key to research must be to discern the textures and unevenness of regional formation: i.e., regionalization.[23]

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[21]/ E. Schoenberger, (1989) "New Models of Regional Change," in R. Peet and N. Thrift (eds.) op cit, pp. 115 - 141, page 133.

[22]/ Along these lines the thoughts of Doreen Massey and Henri Lefebvre have a strong resonance. Both note how our research attention should turn away from objects (or products) to processes. H. Lefebvre (1991) (Trans. Donald Nicholson-Smith) The Production of Space, Cambridge, Mass.: Blackwell, page 26; D. Massey (1984) Spatial Divisions of Labour, London: MacMillan.

[23]/ See also Giddens' admonishments regarding geography's error in supplanting the notion of regionalization with "more abstract models of spatial form." He argues in regards to regionalization that: "No single concept helps more to redress the misleading divisions between micro- and macro-sociological research." He goes on to say that "no

The goal, then, is to write a regional geography without relying on standard, closed categorizations and premised on an examination of the shifting tensions between local and global dynamics. This tension is outlined by the relationship between integration in the guise of increased circulation of goods, people, capital and information and the production (and differentiation) of local spaces: the geography of islands in the stream.

C. STRUCTURE OF THE THESIS

This thesis is organized into four main components. All aim at constructing an interpretation of an emergent regional ensemble known as the Growth Triangle. Part I (Chapters II and III) introduces the theoretical underpinnings and historical precedents within which the analysis is set. Chapter II addresses basic conceptual parameters within which the thesis will unfold. I want to keep the early theoretical discussions to a minimum in order to get quickly to the region at hand -- to illustrate the broad and particular outlines of regional integration. However, the use of some key concepts (e.g., globalization, world city formation or mega-urbanization) needs to be clarified from the outset. Chapter III goes to some lengths to illustrate the historical development of the region and of Singapore as a world city. It identifies key trends which are still resonant and critical today (such as global-regional interaction, the nature of circulatory transformation and the fragmentation of the region). A key conclusion of that chapter is the suggestion that the Growth Triangle is something of a reincarnation of past regional groupings.

Part II (Chapters IV, V and VI) presents the key vectors of change in Singapore, Johor and the Riaus as the region has (re)integrated. The main theme of these chapters is the increasing differentiation within the regional space economy occurring along with its increasing

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concept helps more to counter the assumption that a 'society' is always a clear cut unity with precisely defined boundaries to it." - Giddens (1984) op cit, page 365.

integration (regionally and globally). The combined considerations which inform Chapters III through VI lead one to a number of queries, but central among them is what is underpinning the current regional recombination?

Part III (Chapters VII, VIII, IX and X) marks the start of the second half of the thesis which involves the exploration of the sources and texturing of regional production. Chapter VII looks at two elements of explanation: 1) the geo-strategic agenda of the Singapore government; and 2) the conceptualization and marketing of the regional ensemble as an integrated complex within the circuits of global commerce. Chapter VII is important as it initiates a critique of the neo-classical explanation for the regional reformation (factor endowments) and considers the impact of the 'idea' of the Growth Triangle as a representation of space.

Chapters VIII, IX and X delve more deeply into the factor endowment model (labour, land and capital in turn) both as a critique of standard explanations for regional reformation and as a way of uncovering the complexity of regional interdependence and formation. The key themes of these three chapters are that: 1) 'factors of production' are highly fragmented and 'fuzzy' categories; 2) the regional factor endowment mix is highly (though unevenly) fluid; 3) the differentiation and specificities of factor allotments must be seen in terms of their regional context (i.e., not simply preceding the region's development); 4) factors of production can be and are socially produced in the context of regional production; and 5) shifts in Singapore, and its global niche, underpin the regional transformation.

The final major element of the thesis, Part IV examines circulation specifically and ends with the study's conclusions. Chapter XI develops the themes outlined in the chapters on factors of production and focuses on the role of circulation in regional reformation. It argues that circulatory changes and possibilities are fundamental to the global-local nexus and to the

production of the Growth Triangle region. In particular, the global circulatory niche of the regional core, Singapore, has direct implications for the regionalization process. This niche is increasingly premised on information-based services.

Chapter XI also delves more deeply into the current political economy of Singapore to try an examine the contours of Singapore's emergent global informational niche which are evident within the city-state and in its periphery. The portrait of Singapore as an informational state is critical to clarifying the region's trajectory.

The concluding Chapter (XII), 'Triangulations,' is divided into three parts. In the first section the major themes of the thesis as a whole are reviewed. These are: 1) the utility of (open) regional analysis, even within the frame of globalization; 2) the interplay of circulation and differentiation; and 3) the need to see analytical categories as 'fuzzy.' The second section of the conclusion examines the various 'middle spaces' which the thesis has uncovered in its analysis of the Growth Triangle (e.g., between the global and the local). The final section considers: 1) possible outcomes of the regionalization process for the Growth Triangle's three constituent polities, its peoples and its landscapes; 2) implications for future research; and 3) policy concerns.

Thus, the study is divided into four main parts. Part I (Chapters II and III) introduces the conceptual and historical bases for the interpretation of regionalization. Part II (Chapters IV through VI) investigates current patterns of change. Part III (Chapters VII through X) interprets the sources of change through examining representation and 'the production of factor endowments.' Part IV focuses in on the discussion of circulation and Singapore;'s emergence as a 'place of flows' as a gateway to considering the study's conclusions.

PART I

THEORETICAL AND HISTORICAL UNDERPINNINGS

Part I (the second and third chapters) introduces the theoretical underpinnings of the piece and the historical preconditions which underlay today's reformation. The key themes of this section are: 1) the theoretical and historical linkages between world city formation and transformation at the margins and thus the need to examine the region as a whole to understand its parts; and 2) the importance of circulation as an analytical tool (e.g. as crucial to understanding globalization, world city formation, mega-urbanization and spatial production) and as an important regional characteristic (e.g. which is outlined through an examination of the role of circulation in an historical frame).

CHAPTER II.

CONCEPTUAL BAGGAGE: TRAVELLING WITH THEORY

A. INTRODUCTION

In this chapter, I will draw in some concepts which are useful for framing the discussions as a whole. However, I am wary of what one might call the 'Hope and Crosby syndrome.' In their movie "On the Road to Singapore" Bob and Bing never quite get there, drawn by the allure of a tropical island and a young (Spanish!) dancer. I do not want to let the theoretical exposition lure me too far from the core of the thesis and prefer to introduce the bulk of the theoretical explorations through discussions of the regionalization process.

This study is not based on any one theoretical model. Rather it is an attempt to contextualize elements of various models in-so-far as they help to make the process of change in the Growth Triangle more intelligible.

This said, it is helpful to consider four sets of ideas which are useful in interpreting the Growth Triangle region. These are: 1) space as an arena of analysis; 2) a consideration of the global-local nexus; 3) the model of world city formation; and 4) the model of mega-urbanization. My aim is to contextualize these theory sets as they relate to the Growth Triangle.

B. SPACE

> The productive forces have since taken another great leap -- from the production of things in space to the production of space.[1]

The importance of considering the inter-relationships of society and space has recently been given increased immediacy by: 1) technical and social changes which have transformed spatial relations (e.g., time-space collapse, etc.);[2] 2) a realization of the representational and symbolic role of the spatiality of every day life in social constitution[3] and 3) the manner in which space is increasingly seen as an integral aspect of the development of markets, enterprises and power.[4] All three of these inter-related aspects will come to the fore below as they pertain to the Singapore case. Yet for now they draw one closer to the question of how one might theorize spatial change.

The sources and textures of new regional spaces are multiple and complex. Selecting the spatial transformation of a region as a research topic widens one's research agenda, but it

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[1]/ Lefebvre (1991) (Trans. Donald Nicholson-Smith) The Production of Space, Cambridge Mass.: Blackwell., page 357.

[2]/ See for example, D. Janelle (1968) "Central Place Development in a Time-Space Framework," Professional Geographer, 20, pp. 5-10; M. Castells (1982) "Crisis, Planning and the Quality of Life: Managing the New Historical Relationships between Society and Space," Society and Space, 1, pp. 3-21; T. Leinbach and S. D. Brun (eds.) (1991) Collapsing Space and Time, London: Harper Collins; Stephen Kern (1983) The Culture of Time and Space: 1880 - 1918, Cambridge, Mass.: Harvard University Press; or D. Harvey, (1989b) The Condition of Postmodernity, Cambridge, Mass.: Basil Blackwell.

[3]/ See for example, H. Moore (1986) Space, Text and Gender, Cambridge: Cambridge University Press; J. Duncan and N. Duncan (1988) "(Re)reading the Landscape," Society and Space, 6, pp. 117 - 126; F. Jameson (1984) "Post-Modernism or the Cultural Logic of Late Capitalism," New Left Review, 146, pp. 53-92; and H. Lefebvre (1991) op cit.

[4]/ See for example, J. Beniger (1986) The Control Revolution, Cambridge Mass.: Harvard University Press; K.N. Chaudhuri (1991) Asia Before Europe: Economy and Civilization of the Indian Ocean from the Rise of Islam to 1750, New York: Cambridge University Press; D. Harvey (1989a) "Money, Time, Space and the City," in The Urban Experience, Baltimore: Johns Hopkins University Press; D. Massey (1984) Spatial Divisions of Labour, London: MacMillan; M. Mann (1986) The Sources of Social Power. Vol. 1: From the Beginning to AD 1760, New York: Cambridge University Press; M. Foucault (1986) "Of Other Spaces," Diacritics, 16, pp. 22-27; and F. Driver (1985) "Power, Space and the Body: A Critical Assessment of Foucault's Discipline and Punish," Society and Space, 3, pp. 425-446.

also increases interpretive range. Henri Lefebvre has both asserted the utility of spatial analysis and suggested the complexity of the task in his writings. It seems useful to quote him at length in what is an apt summary of the project at hand,

> A comparable approach is called for today, an approach which would analyze not only things in space, but space itself...
>
> ...the world space does not merely subsume national spaces, but even (for the time being at least) precipitates the formation of new national spaces through a remarkable process of fission. All these spaces meanwhile, are traversed by myriad currents. The hyper-complexity of social space should now be apparent, embracing as it does individual entities and peculiarities, relatively fixed points, movements, and flows and waves -- some inter-penetrating, others in conflict and so on.
>
> The principle of interpenetration and super-imposition of social spaces has one very helpful result, for it means that each fragment of space subjected to analysis masks not just one social relationship but a host of them that analysis can potentially disclose.[5]

The wide range of insights which potentially may be revealed through analyzing space is both a strength and weakness of the geographical project. The selection of space as an axis of analysis makes for challenging research (i.e., more difficult than say a sectoral or industry study) because of the breadth of potentially relevant concerns and the illusiveness of the 'object' of analysis.

Space is a 'concrete abstraction' whose role in society is ubiquitous but it is also often intangible and multi-faceted. As such, space challenges traditionally empirical and categorical forms of inquiry (which are premised on definable objects of analysis). How is one to approach the spectral and fragmented, yet critical conceptual array which outlines the silhouette of space as an arena of analysis? I am arguing that one needs to turn towards processes, movement and perception and away from categorical boundaries and fixity.

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[5]/ Lefebvre (1991) op cit, pages 88-89.

The first boundary to be deconstructed is that between society and space. There is an apparent consensus within the geographical 'conventional wisdom' about the interwoven and reflexive relationship between society and space (i.e., neither having *a priori* primacy, or existing outside of the other).[6] However, the details of this relationship are often ambiguous and contingent. This is precisely because the two 'categories' are not isolated sets. Space is both the medium and the outcome of human agency, perception and systems of social practice. This reflexivity makes the object of analysis less self-evident, but it also serves to bring one's focus to the specific subtleties of the production of space within a given milieu.

I will be engaging some of Lefebvre's ideas about how space is socially produced in my interpretation of the emergence of the Growth Triangle. The ensuing discussions will illustrate the manner in which the Growth Triangle may be seen as an evolving 'product.'[7] Lefebvre holds that 'produced' spaces may usefully be interpreted in terms of: 1) representational spaces and 2) spaces of representation and 3) 'spatial practices'.[8] I will be emphasizing two aspects of the production of space: circulation and representation (especially the former). Yet as I argue the local production of space (or region) needs to be set within the context of increased global integration. The Growth Triangle must be seen as a mediation of 'the global and local.'

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[6]/ See for example, Anthony Giddens (1984) The Constitution of Society: An Outline of the Theory of Structuration, Berkeley: University of California Press; M. Dear and J. Wolch (1989) The Power of Geography, Boston: Unwin-Hyman; D. Gregory and J. Urry (eds.) (1985) Social Relations and Spatial Structures, New York: St. Martins Press; D. Gregory, (1989) "Presences and Absences: Time-Space Relations and Structuration Theory," in David Held and John Thompson (eds.) Social Theory and Modern Societies: Anthony Giddens and His Critics, New York: Cambridge University Press; D. Massey and J. Allen (1986) Geography Matters, New York: Cambridge University Press; E. Soja, (1989) Postmodern Geographies. London: Verso; N. Thrift (1983) "On the Determination of Social Action in Space and Time," Society and Space. 1 (1), pp. 23-57.

[7]/ Lefebvre has a distinct meaning for this term which connotes the artificiality of the product. This approach seems particularly applicable in terms of the way the region is conceived and perceived. However, Lefebvre seems to express a much more marked concern for 'colonization' of the life-world (i.e., as exemplified by the work of Habermas) than is my wish here.

[8]/ Lefebvre (1991) op cit, page 356.

C. THE LOCAL-GLOBAL NEXUS

1. Outlining the Local

The contemporary spatial reconstitution of markets and the increased fluidity of capital have drawn a good deal of attention to the manner in which 'localities' respond to and affect change in economic systems of greater scale.[9] Much of the analysis based on this approach emphasizes the activities of local political groupings (i.e., townships or unions) in negotiating a new space in a fluid and 'competitive' economic system. This work is very attractive and resonates strongly in the Singapore case where the geo-economic strategizing by the state is ubiquitous in its importance.

Despite its strengths, 'localities research' is often haunted by criticism which focuses on the specificities of what defines 'the locality.' Among the issues facing the definition of the locality is the issue of boundaries.[10] As argued above in regards to regions, it is not useful to set arbitrary confines upon the 'locality' as the unit of analysis. One's attention should really turn towards the process of localization.

a) Localization

Localization is the grounding (and generation) of social dynamics through local praxis.[11]

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[9]/ This work arises from D. Massey (1984) op cit; see also P. Cooke (1989) Localities, London: Unwin-Hyman; A. Cochrane (1987) "What a Difference the Place Makes: The New Structuralism of Locality," Antipode, 19, pp. 354-363; S. Duncan (1989) "What is Locality?" in N. Thrift and R. Peet (eds.) New Models in Geography, Winchester, Mass.: Unwin-Hyman, pp. 221-253; J. Urry (1987) "Society, Space and Locality," Society and Space, 5, pp. 435-444; and particularly a special 1991 issue on 'the locality debate' of Environment and Planning A, 23 (2), pp. 155-308.

In a related, but less explicitly theoretical vein see Sharon Zukin (1991) Landscapes of Power: From Detroit to Disney World, Berkeley: University of California Press.

[10]/ As well as the 'agency of localities.' See S. Duncan and M. Savage (1991) "Commentary: New Perspectives in the Locality Debate," Environment and Planning A, 23 (2), pp. 155-164.

[11]/ This view is closely linked to Giddens' structuration theory. The reader may wonder why I have not more systematically drawn on Giddens' work. For example, his idea of regionalization, which implies both localization and 'zoning' (differentiation) of social practices, would seem applicable to the present case. However, despite Giddens' concern with 'distantiation,' system integration and his dislike of the macro-micro

The localization process may be usefully understood within a given frame (such as a community, town or region), but is not necessarily limited to that frame.[12] The boundaries of localization are woven of a diffuse tapestry of varying levels and kinds of interdependency and perception/representation (i.e., no clear confines).[13]

The 'Singapore region' is one arena of localization. It is given representation by the concept of the Growth Triangle, but it is clearly not reducible to the area within that euclidian frame (interview results confirmed this point). As Gregory has written, "models of transformation require theorization of spatial structure, not as flat, frozen lattices -- 'the most solid of all geometries' -- but as hierarchically ordered arenas of social practice."[14] The Growth Triangle as an ensemble is but a part of the interwoven fabric of global space.[15]

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distinction, I find his model *in toto* to be most applicable at the micro-scale and difficult to put into research practice (e.g., to get at and define 'routine practices') at the meso-scale (although his argumentation supports such an approach). His insights (e.g., on dualisms vis dualities or the layering of social/spatial practices) are instructive, but I have found the weight of the model of structuration as a whole in its many details to be too totalizing and theoretically driven to allow a regional portrait to emerge. These comments are based on A. Giddens (1984) The Constitution of Society, Berkeley: University of California Press, see especially pages 110-144, 363-368.

[12]/ And, one should add is not necessarily coherent, rather multiple localizations occur.

[13]/ Maillat summarizes this view effectively in writing about milieu, "...there is still a poorly defined level of analysis which hardly corresponds to traditional analysis: it is transectoral, does not regroup into a well-defined category and does not have precise geographical limits, but refers to notions of territorial interdependence and proximity... Conceived in such terms, the milieu is a process of continual perception, understanding and actions." - D. Maillat (1991) "Local Dynamism, Milieu and Innovative Enterprises," Cities of the Twenty-First Century. New York: John Wiley and Sons, pp. 265-274, pages 268-269. Note the resonance with Lefebvre's concern for the way 'space' is conceived, perceived and lived.

[14]/ D. Gregory (1985) "Suspended Animation: The Status of Diffusion Theory," in Gregory and Urry (eds.) Social Relations and Spatial Structures, New York: St. Martin's Press, page 323.

[15]/ Despite the apparently totalizing approach, Wallerstein's World Systems model has also emphasized this theme. The most explicit melding of the global and the local is in this school's work on family strategies. - See J. Smith, I. Wallerstein and H-D Evers (eds.) (1984) Households in the World Economy, Beverly Hills: Sage.

In terms of urban space, a global approach to the urbanization process (largely based on world systems theory) has been undertaken by Timberlake. See M. Timberlake (ed.) (1985) Urbanization in the World Economy, New York: Academic Press.

I have avoided a full engagement of the world systems model in order to avoid the necessary theoretical exegesis which would detract from the core of the piece: an analysis based on the Growth Triangle.

2. Outlining the Global

The term 'global,' as often presented, is derivative of such terms as 'external' or international. Yet as Cardoso so long ago pointed out, the supposition of fully bounded internal and external dynamics is flawed.[16] I will use the term global along the lines of its most general (and admittedly vague) meaning -- as 'embracing' (i.e., unbounded context). The real utility of the global as an aspect of analysis is to be found in the process of globalization.

a) Globalization

Globalization as it is often evinced is closely linked to 'internationalization' of corporate activities.[17] This line of discussion, which is primarily concerned with the 'logic' of corporate internationalization and location, stretches from Vernon's product cycle thesis, to Hymer's functional hierarchy, to Dunning's eclecticism, to the diversification model of Dickens, and so on.[18] A second stream, typified by Kenichi Ohmae, emphasizes the integration of the world's developed economies through corporate interlocks and governmental linkages.[19] A third stream focuses on the globalization of culture and consumption (usually seen as driven by transnational firms).[20] All three of these approaches tap into some of the symptoms of globalization, but tend

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[16]/ F.H. Cardoso (1977) "The Consumption of Dependency Theory in the US," Latin American Research Review, XII, pp. 7 -24.

[17]/ Of course there are more general treatments as well, such as Samir Amin (1974) Accumulation on a World Scale, Monthly Review Press; or I. Wallerstein (1974) The Modern World System, New York: Academic Press. These studies were progenitors of more specific analyses of the mechanics and agents of change such as transnational corporations.

[18]/ S. Hymer (1972) "The Multinational Corporations and the Law of Uneven Development," in J. Bagwati (ed.) Economics and World Order, New York: The Free Press, pp. 113-140; J. Dunning (1980) "Towards an Eclectic Theory of International Production," Journal Of International Business Studies, II, pp. 9-31; or P. Dickens (1986) Global Shift: Industrial Change in a Turbulent World, London: Harper and Row; but cf. D. Becker and R. Sklar (1987) Postimperialism, Boulder: Reinner.

[19]/ K. Ohmae (1985) Triad Power: The Coming Shape of Global Competition, New York: Free Press.

[20]/ This discussion is roughly divided between those who see the globalization of consumer markets as emphasizing similarities such as Harvard's Theodore Levitt and those who speak of a 'globalization of

to be diverted by the internationalism and growing size of economic actors (e.g., TNCs) and as such miss the core of the process.

3. The Importance of Circulation

I take globalization to be not so much a 'planetary event'[21] but rather to primarily refer to the growing volume and speed of movement of goods, people, money and information within a deepening and increasingly pervasive sphere of circulation.[22] Importantly, the increasing integration which this process underpins does not lead to a homogenization of space.

As this thesis demonstrates, circulatory levels are geographically uneven -- and likely to remain so. Further, the elements of capital, people, goods and information have differential movement capacities between one another and within themselves as categories.[23]

The arena of circulation is constantly undergoing changes in constraints and possibilities in the form of technical and social changes and the resolve of individual agents engaged with newly emergent possibilities which evolve along with changes in the spatial fabric of everyday

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difference' such as Mike Featherstone. See T. Levitt (1985) The Marketing Imagination, New York: Free Press; or M. Featherstone (ed.) (1990) Global Culture, Newbury Park: Sage.

[21]/ This phrase was used in a presentation by Saskia Sassen (1991) "The Regional Question in Today's World Economy: The Case of Global Cities," at the Conference, Multilateral Cooperation for Development in the Twenty-First Century, United Nations Centre for Regional Development, Nagoya, November 7-8, 1991. This view contrasts with that of Manuel Castells current ruminations. See M. Castells and P. Hall (1994) Technopoles of the World, New York: Routledge, page 3, where-in the emphasis is placed on a 'planetary economy.'

[22]/ The assertion of the generic qualities of the globalization trend also enhances the awareness that the process is not really new or revolutionary. (For a useful corrective to the hyperbole surrounding the current phase of time-space compression/collapse see D. Massey (1993) Space, Place and Gender, Cambridge: Polity.)

Indeed, globalization as circulatory transformation may well have reached its peak in terms of the pace of time-space reformation in the last *fin de siecle*. It may be that the most recent round of globalization is to be most noted for its representational and ideological ubiquity.

[23]/ The works of Castells and Harvey have long been consumed by the differential circulatory capacity of capital and people. For a wider rendering of the tensions in circulatory difference see Massey's 'power geometry' (1993, op cit, pages 60-62); or Gregory (1994) Geographical Imaginations, Cambridge Mass.: Blackwell, page 414.

practice. I will particularly emphasize the way the region's states and elements of capital and labour use and produce spatialities within their (shifting) strategic agendas and how the actions of these agents serve to produce the regional fabric. This matrix of change is what underpins continued spatial variation.

A second and somewhat derivative element of the role of circulation in terms of the differentiation of space concerns the importance of representation to spatial production. As circulatory capacity increases and options grow, the manner in which investment sites are represented becomes even more crucial.[24] In particular, the representation of difference is important. As Lefebvre has noted "a new space cannot be born [produced] unless it accentuates differences."[25] As the following study demonstrates, the representation of difference within the Growth Triangle has material consequences in terms of the way new spaces (and geographies) are produced.

Thus, it may be argued that the possibilities presented by 'the annihilation of space through time' have paradoxically enhanced the importance of variations in the texture of space.[26]

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[24]/ This point is a fulcrum for D. Harvey. For focused discussions of the theme see D. Harvey (1993) "From Space to Place and Back Again," in J. Bird et al (eds.) Mapping the Futures: Local Cultures, Global Change, New York: Routledge, pp. 3-29, pages 6-8; or his (1989c) "From Managerialism to Entrepreneurialism in Urban Government in Late Capitalism," Geografisker Annaler B, 71 (1), pp. 3-17; see also S. Roberts (1994) "Fictitious Capital, Fictitious Spaces: the Geography of Off-shore Financial Flows," in S. Corbridge, R. Martin and N. Thrift (eds.) Money, Power and Space, Cambridge Mass.: Blackwell, pp. 91-115, page 107-108.

The role of representation also has much deeper implications than I have outlined here (i.e., in terms of identity formation). These deeper meanings are 'bracketed' here in order to keep the introduction focused.

[25]/ Lefebvre (1991) op cit, page 52; Gregory's reading of Lefebvre's La Revolution Urbaine (1970) also draws out this theme and links it more closely to the urban moment. Gregory writes of Lefebvre's suggestion that urbanization produces "a time-space that is simultaneously differentiated and integrated: what Lefebvre calls 'the differential." D. Gregory (1994) op cit, page 376.

[26]/ The theme of the retained importance of spatial variation has been stridently argued by Harvey and Scott. They write of the impact of time-space compression (ability to get from A to B faster) "...this has led some to argue that space is decreasing in significance for understanding the processes at work under capitalism. We insist that the converse is the case. The problem of space is not eliminated but intensified by the crumbling of spatial barriers. Command over space now becomes the vehicle for increasingly subtle intermediations and differentiations. So far from becoming uniform and homogenous, space becomes even more variegated,

The Singapore region illustrates this trend both in the region's totality (i.e., as a unique 'market' in a global grid of markets) and in regards to its separate elements (i.e., between Singapore, Johor and the Riaus, and within each of the nodes). This differentiation process is critical to understanding the global economy as well as the uniqueness of the region of study.

The possibilities inherent in the process of globalization (as enhanced circulation) are not in themselves new, but the scope and scale of globalization has greatly accelerated of late. Circulation has become more fluid, more controlled, more encompassing (i.e., more locations), faster and less expensive. More areas of the globe are potentially accessible to more intense circulation than ever before. These shifts have come to affect, but not uniformly determine, the context of individual actions. Globalization, therefore, refers to the possibilities of circulation which have transformed potential time-space relations but done so in a highly uneven manner. Thus, globalization is a process and a set of possibilities rather than an event. As such, globalization is also a deeply local process.[27]

4. Local-Globalization[28]

In considering circulation and the local-global nexus, it is useful to look at what one

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heterogenous and finely textured, even more complex in the manner of its usage." -- D. Harvey and A. Scott (1989) "The Practice of Human Geography: Theory and Empirical Specificity in the Transition from Fordism to Flexible Accumulation," in B. MacMillan (ed.) Remodelling Geography, Cambridge: Basil Blackwell, pp. 217-229, page 228.

[27]/ This argument can in fact be inverted to suggest that the local is global as Massey has done. (See Massey (1993) op cit, pages 120-121). The reason for my approach is to assert the retained importance of local specifics even while these must be seen in a global context. It is really the separation of the categories which is at issue (see Massey (1993) page 161).

Note also that Peet and Thrift (1989) op cit, pages 21-22, suggest that two key elements of contemporary geographical analysis must be a focus on the impacts of transportation and communication innovations (i.e., on circulation) and 'locality.'

[28]/ See the extensive treatment of this theme in C.F. Alger (1988) "Perceiving, Analyzing and Coping with the Local-Global Nexus," International Social Science Journal, 117, pp. 321-340.

The intermingling of global and local strategies is very much de rigeur in the popular business press. It was also very present in my interview set with managers of transnational firms based in Singapore. They were all fixated with the challenge of "thinking global but acting local."

might call intensive and extensive globalizations. 'Extensive globalization' refers to the progressive identification and integration of new frontiers for development (e.g., the Riaus and to a lesser extent Johor). The frontier is a critical element of globalization as process, the search for spatial arbitrage possibilities (with high margins), spurs on the development of new markets (e.g., of labour or products) in once 'remote' settings.[29] However, the 'edge' which is so crucial to globalization can only be apprehended *in situ* where the process is carried out.

'Intensive globalization' refers to a deepening of levels of integration already well in place (i.e., Singapore's rapidly growing throughput). The engines driving intensive globalization are also local and must be apprehended at that scale. For example, Singapore continues to invest billions of dollars in enhancing its circulatory capacity, and thus, global circulation, through the development of port, airport and telecommunications facilities and institutions.

Globalization is also usefully seen as an ideological construct.[30] As Singapore's Strategic Economic Plan has put it: "globalization doesn't merely mean doing things overseas. Singaporeans have to embrace the global socio-economic space..."[31] How is this space shaped and defined? Amin and Thrift have argued for the internal reflexivity of the process of globalization in writing that "... the 'stories' that are circulated about a global production filiere, and how they are scripted constitute that filiere's understanding of itself."[32] However, although

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[29]/ This idea would seem to have a resonance with Giddens' idea of time-space edges. However, the detailing of such edges would appear to be an undertheorized area of structuration theory (though it is also crucial).

[30]/ See also Gregory (1994) op cit, page 203-204.

[31]/ Republic of Singapore (1991) The Strategic Economic Plan: Towards a Developed Nation. Singapore: Ministry of Trade and Industry, page 61. The state's vision seems to be finding its way into the Singaporean psyche. A Singapore Sunday Times supplement on 'Singapore: World City' presented survey data showing that 44% of respondents thought Singapore should be seen as an "International City," 35% thought of Singapore as an ASEAN country and only 21% as an East Asian country. Sunday Times, 8/19/92:4.

[32]/ Ash Amin and Nigel Thrift (1992) "Neo-Marshallian Nodes in Global Networks," International Journal of Urban and Regional Research, 16 (4), pp. 571-584, page 576, see also page 574.

the imagery of the global economy may seem transnational in its content, it is a local product (for example, through infrastructure investments).[33]

The wide spectrum and spectre of the possibilities offered by globalization makes the process a very effective ideological tool within local political arenas (such as Singapore) where the imagery of globalization is largely constructed.[34] In Singapore, the portrayal of the omnipresent competitive global milieu has long been a source of state power (discussed in more depth below). Prime Minister Goh Chok Tong has described Singapore's fate as,

> ... to run on the fast track of economic development ... or face being left behind ... It is our lot in life that we continue running in the fast lane to keep up with changes in the new world economy. (Goh Chok Tong, 1991)[35]

Among the traits of the 'new world economy' which Goh points to is the emergence of economic instability and a linked emphasis on economic flexibility.[36] A key arena for the realization of flexibility is in terms of the ability of firms or localities to reposition economic resources such as labour, land capital and information (the foci of Chapters VII to XI).

The perceived (and real) threats of potential competition and instability which

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[33]/ This point is made clearer (i.e., the local basing of the narratives) in a later piece by Thrift. N. Thrift (1994) "On the Social and Cultural Determinants of International Financial Centres: The Case of the City of London," in S. Corbridge, R. Martin and N. Thrift (eds.) Money, Power and Space, Cambridge, Mass.: Blackwell, pp. 327-355, page 335.

[34]/ The role of the international 'cultural mass' (media, academe, etc.) should not be discounted in this regard. Academics are deeply implicated in feeding the globalization myth and are thus affecting the political struggles surrounding that discourse. See David Gordon's attempt to 'de-mythologize' current visions of globalization in D.M. Gordon (1988) "The Global Economy: New Edifice or Crumbling Foundations?" New Left Review, 168, pp. 24-64; or Massey (1993) op cit.

[35]/ Straits Times, 27/9/91 cited in Singapore National Computer Board (1992) A Vision of an Intelligent Island, Singapore: SNP Publishers Ltd., page x.

[36]/ This is ironic in that classical economic theory would suggest that the larger the market the more stable it will be. The globalization process contains many other paradoxical trends. Among these are the seemingly contradictory trends of economic integration and political/ethnic fragmentation and the irony that smaller entities may survive more effectively in a global economy. These themes have been much more evident in the popular than academic presses. See for example, B.R. Barber (1992) "Jihad VS McWorld," Atlantic Monthly, March, pages 53-55 and 58-63; or John Naisbitt (1992) Global Paradox, New York: W. Morrow.

accompany the globalization process have increased the apparent need to be able to recast and move factors of production smoothly. Speed of turnover of information ('real time data'), capital (flexible accumulation), goods ('Just In Time') and personnel (subcontracting, tapping new labour markets) is increasingly vital to economic success.[37] Importantly, these requisites, when pursued by 'local' agents, spur on globalization as circulatory transformation as they become the competitive benchmarks (i.e., a kind of treadmill effect).

It is imperative that one notes that the elements of production which are being repositioned and redefined within the shifting eddies of perceived global and regional opportunities are not simply inert aspects of econometric analysis: they are the landscapes and the livelihoods of the region. Although regional production might well need to be set in a global context, it is a deeply local process in the end grounded in local landscapes and livelihoods. As Lefebvre and Castells write,

> The raw material in the production of space is not, as in the case of particular objects, a particular material: it is rather nature itself, nature transformed into a product, rudely manipulated, now threatened in its very existence, probably ruined and certainly and most paradoxically, - **localized**. [emphasis in original] - H. Lefebvre[38]

> While the overall logic of the production and management system still operates at the level of flows, the connection between production and reproduction - a key element of new productive forces - requires an adequate linkage to the **place-based** system of formation and development of labour. [emphasis added] - M. Castells[39]

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[37]/ All of these developments affect spatial relations and thus the utilization of the omitted factor of production -- land.

[38]/ Lefebvre (1991) op cit, page 123.

[39]/ Castells (1989) op cit, page 351.

The model of separate global and local spaces is flawed. Globalization in both functional and ideological senses is locally produced and realized. However, 'local' spaces can not be analyzed in isolation from the (increasingly relevant) global context.

Accepting the indivisibility of global and local spaces makes the search for a 'middle-space' between the two seem all the more alluring yet also all the more difficult. This is because of the openness, unevenness and tumult of the arena of analysis. As will be argued, the middle space between macro and micro, global and local is extremely unstable. It is unstable in terms of flows and connections, but also in terms of landscapes and livelihoods.

Even given this instability, the construction of new middle spaces is not without pattern or form. Despite local distinctions (indeed, perhaps thriving on them), the current round of localized global economic restructuring is yielding some discernable spatial profiles. In examining the changes characterizing the Growth Triangle case, two models seem to capture the region as it has evolved. These are: world city formation and mega-urbanization. These models and the processes they describe capture the extreme cases of intensive and extensive globalizations (respectively). Both are useful for interpreting the emergence of a middle space known as the Growth Triangle.

D. WORLD CITY FORMATION

1. General Introduction

The model which seems most useful for understanding changes at the regional core is the 'world city model.' Singapore is a world city. In their seminal 1982 paper, Friedmann and Wolff noted the emergence of,

> ... an urban hierarchy of influence and control. At the apex of this hierarchy are found a small number of massive urban regions that we shall call world cities.[40]

World cities were originally seen as 'command posts' for transnational corporations. They were envisioned as reflections of corporate hierarchies and command structures. The emergent system of world cities provided transnational capital with meeting places for the articulation of global and regional markets.

World cities have been characterized by quaternary sector growth, social and economic dualisms and escalating land prices.[41] However, as Friedmann and Wolff emphasized, the central trait of these cities is their global integration. A key to their success is to be found in the high levels of connectivity with other centres by way of informational and financial flows, corporate networks and the work of an international elite (in business and financial services). Circulation makes the world city.[42]

2. The World City as Circulatory Place

In pointing to the importance of the transnationalization of services and circulation to

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[40]/ J. Friedmann and G. Wolff (1982) "World City Formation: An Agenda for Research," International Journal of Urban and Regional Research, 6, pp. 309-344, page 310.

[41]/ The world city literature to date has been surprisingly concentrated in its foci. World city research has tended to focus on places like London, New York, Los Angeles or Tokyo. There is a relative shortage of material on the nature of 'lower-order' world cities such as Singapore.

See for examples, A. King (1990) Global Cities. Post-Imperialism and the Internationalization of London, New York: Routledge; N. Thrift (1990) "Doing Regional Geography in a Global System: The New International Financial System, the City of London, and the Southeast of England, 1984-87," in R.J. Johnstone, J. Hauer and G.A. Hoekveld (eds.) Regional Geography, New York: Routledge; Saskia Sassen-Koob (1988) The Mobility of Labour and Capital, London: Cambridge University Press or S. Sassen (1991) The Global City, Princeton: Princeton University Press; M. Davis (1992) City of Quartz, New York: Vintage; Takashi Michimura (1992) "The Urban Restructuring Process in Tokyo in the 1980s, Transforming Tokyo into a World City," International Journal of Urban and Regional Research, 16 (1), pp. 114-128; or P. Rimmer (1986) "Japan's World Cities: Tokyo, Osaka, Nagoya or Tokaido Megalopolis?" Development and Change, 17 (1), pp. 12-58.

[42]/ As Gottmann noted long ago, accessibility, is "the first prerequisite" to the development of centrality, transactional densities and therefore, of quaternary functions. J. Gottmann (1970) "Urban Centrality and the Interweaving of Quaternary Activities," Ekistics, (29), pp. 322-331, page 326.

world city formation, one is quickly confronted with the issue of where an 'object' of analysis might lie in attempting to uncover the roots and nature of world city formation. In this regard, Manuel Castells has been consumed with the impact of enhanced circulatory capacities, or his 'space of flows.'[43] To understand the world city, in his view, one needs to understand the nature of these flows (mostly of information). In Castells' earlier work, the impact comes in the way "the internal logic of an organization tends to supersede the external factors associated with specific places."[44] This kind of view echoes Friedmann and Wolff's vision and is based on the assertion of the growing dominance of transnational corporations (TNCs) in the structuring of the global space-economy.[45]

Such a perspective, while containing many valid observations, increasingly needs to be questioned. The reasons for the retreat from firm-based analysis are to be found in the irregularity and invention of different corporate forms and strategies (thus denying specific 'logics') and the increasingly vague boundaries surrounding the corporate entity. The booming growth in corporate interlocks, joint ventures and vertical disintegration has made 'the' corporation an increasingly difficult object of analysis.[46]

Yet one must acknowledge the importance of transnational firms for world city

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[43]/ Castells' view is that new information channels have undercut the role of local citizens in creating their place. For him, the information-based world city is a place where "life is transformed into abstraction, cities into shadows." - M. Castells (1983) The City and The Grass Roots, Berkeley: University of California Press, page 314.

See also M. Castells (1989) The Informational City, Oxford: Basil Blackwell; M. Castells (1985), "High Technology, Economic Restructuring, and the Urban-Regional Process in the United States," in M. Castells (ed.) High Technology, Space, and Society, Beverly Hills: Sage.

[44]/ M. Castells (1985), op cit, page 4.

[45]/ See for example, N. Thrift and M. Taylor (1986) Multinationals and the Restructuring of the World Economy, London: Croom Helm.

[46]/ See interesting discussion in A. Scott and M. Storper (1992) Pathways to Industrialization, New York: Routledge.

formation (certainly the Singapore government does). For this reason, I carried out unstructured interviews with senior managers of 40 transnational corporations with important office functions in Singapore. The managers' fixation with the spatial re-organization of their competitive milieux came strongly to the fore: milieux which they affect and which they interpret in various ways but which can not be reduced to the logic of a generalized 'capitalist firm.' A key result of the interview set was the wide range and indeterminacy of the spatial strategies adopted by the firms (see Chapter XII). Schoenberger captures the variability of corporate strategy effectively in writing,

> In the final analysis, definitive theories of regional change elude us because the primary agents of change, capital and labour, are so extraordinarily creative, each in their own way.
> The use of space is part of this strategic array and it would be surprising indeed to find a unique spatial strategy in the midst of this diversity.[47]

The variability of specific corporate strategies has of late been magnified by new transportation and communication technologies which are implicated in the reconstitution of enterprise form. As Castells has more recently argued, the technologies which once supported corporate expansion have now dissolved the roles and structures of the large firms they once created and replaced their hierarchies (which are crucial to world city formation) with indeterminate networks.[48] He writes,

> There is a shift, in fact, away from the centrality of the organizational unit to the network of information and decision. In other words, **flows rather than organizations** become the units of work, decision and output accounting.[49] [emphasis in original]

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[47]/ E. Schoenberger (1989) "New Models of Regional Change," in R. Peet and N. Thrift (eds.) New Models in Geography, Winchester, Mass.: Unwin-Hyman, pp. 115 - 141, page 134.

[48]/ Castells (1989) op cit, page 20.

[49]/ Castells (1989) op cit, page 142.

And further that,

> The new international economy creates a variable geometry of production and consumption, labour and capital, management and information - a geometry that denies the specific productive meaning of any place outside its position in a network whose shape changes relentlessly in response to the messages of unseen signals and unknown codes.[50]

Such a view renders the 'new global economy' in which world cities must be placed an even more evanescent arena of analysis. One is confounded by the intangibility and indeterminacy of the very technological and market forces which are spurring on global transformation and world city formation. How is one to analyze such a disperse and apparently amorphous melange?

The meeting place for different actors, their different strategies and the 'flows' and networks of capital, information, people and goods is the market -- more precisely the market place.[51] Markets have increasingly come to replace hierarchies as the organizing principle of contemporary capitalist reformation.[52] Such a development requires a re-direction in the way we view world city formation -- making local attributes (such as the regional economies) all the more crucial.

3. Differentiation

There has been a marked progression since Friedmann and Wolff's work towards a consideration of differentiation and the world city model (both between and within world cities).

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[50]/ Castells (1989) op cit, page 348.

[51]/ See the cogent arguments of R. Martin (1994) "The End of Geography?" in S. Corbridge, R. Martin and N. Thrift (eds.) Money, Power and Space, Cambridge Mass.: Blackwell, pp. 251-278, page 263; or N. Thrift (1994) "On the Social and Cultural Determinants of International Financial Centres: The Case of the City of London," in the same volume, pp. 327-355; or W. Code (1991) "Information Flows and the Process of Attachment and Projection: the Case of Financial Intermediaries," in S.D. Brun and T.R. Leinbach (eds.) Collapsing Space and Time, London: Harper Collins, pp. 111-131, page 113.

[52]/ See for example A.J. Scott (1988a) Metropolis, Berkeley: University of California Press, page 188.

World cities are distinguished from other cities by their high levels of connectivity and circulation. Yet there are also important distinctions within this broad heading.

As Sassen has recently argued, there is a notable and important differentiation in the roles of world cities, at least of the top of the hierarchy (her 'Global Cities' of London, New York and Tokyo).[53] For example, Tokyo exports capital, New York leads in securities and London is the centre of global money markets. These niches are distinct and have historical, social and regional roots.

Differentiation is permitted and demanded by enhanced circulation (as options increase and accessibility varies). Singapore's regional 'envelope' is part of its global differentiation as a key world city. The Growth Triangle is important to the city's plans as it is a 'foundational element' of the city's external connections, a concrete manifestation of control capacity and a dynamic and visible magnet for investment.[54]

World cities also seem to need internal differentiation to support their mix of resident (and flexible) manufacturing activities and the emergent amalgam of services. The high end financial and informational services personnel need to be, and tend to be, matched by a large number of other low wage service and production workers who produce the accoutrements of their work settings and life styles and provide an economic base for the city.[55] This dualistic model holds for the Singapore case, but has some peculiar dimensions - involving other parts of the Growth Triangle.

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[53]/ See especially Sassen (1991) op cit, page 327.

[54]/ As Chapter III demonstrates, Singapore has long been a 'lower order' world city -- acting as a link between its surrounding region and the imperial metropole. The nature of the city's current niche has not changed so very much from its historical role (though the global 'core' is now much more diffuse).

[55]/ See especially Saskia Sassen-Koob (1988) op cit.

Singaporean society and the state's legitimacy is premised on the continued growing affluence of the bulk of the population (in a kind of hybrid Fordism) and the appearance of equity. Because of the 'tightness' (in physical, political and economic senses) of the society, deep and obvious disparities would be difficult to maintain.[56] The Growth Triangle gives the city-state a 'social vent' where marginal but economically important functions may be carried out. As this study demonstrates, Singapore as world city needs its regional envelope or, in this case, its mega-urban shadow region.

E. MEGA-URBANIZATION

1. General Introduction.

The margins of the Growth Triangle (i.e., Johor and the Riaus) are undergoing changes similar to those occurring in many other 'once-rural' areas of Asia which have been termed mega-urbanization.[57] The model of mega-urbanization in Asia is an outgrowth of McGee's early work on what he termed *Desa-Kota* (a melding of *Bahasa Indonesia* terms for town and city).[58] The model, and the subsequent conceptualization of mega-urbanization, is in essence a concern with the development of traits long thought of as urban in dispersed 'rural' settings.[59] Mega-

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[56]/ One should note, however, that Singapore has the highest Gini co-efficient (indicating income inequality) among the four 'Little Dragons' or Asian NIES. See World Bank (1993) The East Asian Miracle: Economic Growth and Public Policy, New York: Oxford University Press, pp 72-74.

[57]/ For a review of the mega-urban model see N. Ginsburg, B. Koppel and T.G. McGee (1991) (eds.) The Extended Metropolis: Settlement Transition in Asia, Honolulu: University of Hawaii Press; for a focus on the Singapore case, see S. MacLeod and T.G. McGee (1992) The Emergence of Extended Metropolitan Regions in ASEAN, A Study of the Singapore-Johor-Riau Growth Triangle, Bangkok: United Nations, ESCAP.

[58]/ See T.G. McGee (1988) "Urbanisasi or Kotadesasi? Evolving Patterns of Urbanization in Asia," in F.J. Costa, et al (eds.) Urbanization in Asia: Spatial Dimensions and Policy Issues, Honolulu: University of Hawaii Press.

[59]/ Mega-urban regions have been identified in Japan (Tokyo to Osaka), China (the Shenyang-Dalian Corridor; Beijing-Tianjin; the Shanghai-Nanjing conurbation and in the Hongkong-Guangzhou belt), Taiwan (Taipei-Kaoshiung), Thailand (the Central Plains), and Indonesia (Jabotabek).

urban regions, also called extended metropolitan regions (or EMRs), are characterized by:[60]

1) extremely high levels of economic diversity and interaction (high circulatory and transactional densities);

2) a high percentage of non-farm employment (i.e., over 50%);

3) a mix of employment possibilities, especially for female labour which is moving into the paid work force on a large scale;

4) a lack of regulatory control, these regions often transect political boundaries;

5) a deep penetration of global market forces into the country-side;

6) a landscape of incongruous juxtapositions (i.e., differentiated) and extremely uneven development;

7) dispersal of up to one hundred kilometres from an urban core and frequently found near major transportation conduits.

2. Western Variations on the Mega-Urban Model

The way we have come to view the distinctions between the city and the countryside is a core axis of the western geographical imagination. The changing relations and divisions between city and country have attracted such luminary thinkers as Raymond Williams and Anthony Giddens.[61] Recent works by Berry and Champion on 'counterurbanization,' Knox on 'outer-city urbanization' and Garreau on 'Edge Cities' and a number of other authors have begun the construction of a new appreciation for the transformation of spaces girding large metropolises (i.e., beyond suburbanization).[62]

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[60]/ As largely outlined in T.G. McGee (1991) "The Emergence of DesaKota Regions in Asia," in Ginsburg et al (eds.) op cit, pp. 12-17.

[61]/ A. Giddens (1985) "Time, Space and Regionalization," in D. Gregory and J. Urry (eds.) Social Relations and Spatial Structures, New York: St. Martins Press, page 294; or R. Williams (1973) Country and the City, London: Chatto and Windus.

Perhaps the classic study premised on the rural-urban divide is M. Lipton (1977) Why Poor People Stay Poor: Urban Bias in Third World Development, London: Temple Smith.

[62]/ A.G. Champion (1989) Counter-urbanization: The Changing Pace and Nature of Population Deconcentration, London: Edward Arnold; P. Knox (1990) "Planning and Applied Geography," Progress in

The starting point for western models of the development of mega-urban zones is the work of Jean Gottmann and the idea of megalopolis, a fusion of urban spaces across vast tracks of the US northeast.[63] Gottmann foresaw the potential for today's transformation of rural space in Asia. In 1961 he wrote that:

> The symbiosis of urban and rural in megalopolis, creating new and interesting patterns of multiple land use over large areas...Like the downtown business districts with powerful skylines, this aspect of the megalopolis will probably be repeated in slightly different but not too dissimilar versions in many other regions of the rapidly urbanizing world.[64]

This prediction was astute but there are important differences between the megalopolitan and mega-urban models and the trends they describe.

3. Megalopolis?

The Asian-based mega-urbanization process is distinct from Gottmann's image of megalopolis in at least three ways. First, megalopolitan development was the result of rapid suburbanization[65] and the conjoining of urban nodes interspersed with places of relative wilderness. In Asia it is not so much people moving from the city to the countryside (though this is clearly part of the mix - see Chapter IX) as it is the urban system enveloping areas and peoples traditionally conceived of as rural or drawing rural migrants to new rural zones of growth. Mega-urbanization sees labour tapped in the countryside.

A second distinction from the megalopolitan model which is important in considering mega-urbanization is the role of 'external' forces. Asia's mega-urban regions are largely spurred

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Human Geography, 14 (1), pp 112-119; and J. Garreau (1991) Edge City, New York: Doubleday.

[63]/ J. Gottmann (1961) Megalopolis: The Urbanized Northeastern Seaboard of the United States, New York: Twentieth Century Fund.

[64]/ Ibid, page 257.

[65]/ The 'western' experience of the timing of the movement of industry into suburban zones (regarding labour market formation) is not without debate. For a brief review, see Storper and Walker (1989) op cit, page 21.

on by foreign investment which increases margins for local investors (i.e., extensive globalization).[66] Although Gottmann thought the megalopolitan region's links to the international economy important, his vision was not one of regionalization fuelled by foreign investment as is the case in most of Asia.

The third variation on Gottmann's theme concerns the speed of the development of mega-urban regions -- they are enveloping rural landscapes at ferocious speeds. Mega-urbanization is a phenomenon which has taken off in the last 10 years. The Growth Triangle has taken off in the last five years.[67]

4. The Growth Triangle as Mega-Urban Region

An intriguing aspect of the mega-urban model is the manner in which broadly similar spatial formations tend to have different and distinct roots and specific characteristics in individual cases. Each mega-urban region must be interpreted in its own terms.

The Growth Triangle is a mega-urban zone, yet it differs from the 'classic' mega-urban model in two important ways. First, unlike the 'rice-bowls' of many other mega-urban regions, the areas of the Riaus and Johor are relatively sparsely populated. This has meant that labour has had to be drawn to the region. Conversely, the low population levels and the original dominance of plantations and fisheries at the regional margins have made land acquisition and assembly for development easier than might otherwise have been the case.

The second key distinction regarding the Growth Triangle as a mega-urban zone is also in many ways its defining element. The Growth Triangle is a trilateral transnational complex.

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[66]/ See M. Douglass (1991) "Transnational Capital and the Social Construction of Comparative Advantage in Southeast Asia," Southeast Asian Journal of Social Sciences, 19 (1&2), pages 14-43.

[67]/ Though shifts, which may be seen as mega-urbanization, were occurring in Johor before the Growth Triangle frenzy. The specific time-lines of development are outlined in much more detail below.

As such, issues of geopolitics and tariffs cloud the picture of the mega-urbanization process. However, they may also serve to enhance the region's *cache* as a development zone through comparative advantage.

In sum, although the population levels in Singapore's shadow region are low and the borders can obstruct integration, the actual outcome of the regional mix has been to push the mega-urbanization process along. The benefits of differentiated constituencies push some activities across the border into Johor and the Riaus (e.g., in search of tax breaks) and the search for cheaper labour pushes investment and developments further into 'remote' areas as initially accessible spaces are consumed/transformed. In the Growth Triangle, as in most mega-urban zones, this transformation process is heterogeneous in its manifestations and explosive in its growth rate.

5. Theoretical Themes of the Mega-Urban Model

The Mega-urban regions of Asia are the 'leading edges'[68] of some of the fastest growing economies in the world. They very much represent the competitive vanguard and the face of contemporary capitalism and as such they must be understood. As mega-urbanization explodes outwards into rural hinterlands, the areas involved often reach very rapid economic growth rates and immense social and environmental dislocation. The need to come to an understanding of these regions is given urgency by both the impacts on the ground (involving several hundred million people) but also the way they may force us to reconsider a number of theoretical tenets.

Mega-urbanization presents one with a number of useful and corrective theoretical insights, especially in terms of how one views spatial change. The key implication of the model is that the existence of mega-urban regions re-affirms the dubious theoretical footing on

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[68]/ The can be seen as such in both figurative and literal terms. They are both at the vanguard of industrial growth and a new frontier of capital engagement.

which the concept of the city is based.[69] Thrift highlights the conundrum:

> The age of Gottman's megalopolis has been reached, almost without it being noticed. What constitutes a town or a city nowadays, when a mosaic of specialized and carefully designed urban and rural areas sprawls over vast tracts of space, is an interesting question.[70]

As Koppel has noted, the concept of mega-urbanization seeks a middle ground, avoiding the 'ersatz debate' surrounding models juxtaposing rural and urban categories.[71] The model moves the emphasis of analysis away from issues of defining boundaries and relations between artificial categories such as 'urban' and 'rural' (e.g., unequal exchange) and towards a deeper consideration of grounded processes and interaction.

6. Circulation

The emerging literature on mega-urbanization places a strong emphasis on the link between circulation and the processes of spatial change, in particular on a 'space-economy transition.'[72] In the space-economy transition, activities which could once only be carried out within the higher transactional densities of a city core can now often be completed within apparently 'rural' spaces. Transactional densities are closely linked to advances in circulation.[73]

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[69]/ See also P. Saunders (1985) "Space, the City and Urban Sociology," in D. Gregory and J. Urry (eds.) Social Relations and Spatial Structures, New York: St. Martin's Press, pp. 67-89, page 80.

[70]/ Nigel Thrift (1989) "Introduction: New Models of the City," in N. Thrift and R. Peet (eds.) New Models in Geography, Winchester, Mass.: Unwin-Hyman, pp. 43-54, page 51; See also Lefebvre (1991) op cit, or P. Saunders (1986) Social Theory and The Urban Question. London: Hutchison.

[71]/ B. Koppel (1991) "The Rural-Urban Dichotomy Re-examined: Beyond the Ersatz Debate," in Ginsburg et al (eds), op cit.

Also, as Harvey has put it "... the urban-rural distinction has lost its real economic basis, although it lingers, of course, within the realms of ideology with some important results. But to regard it as a fundamental conceptual tool for analysis is in fact to dwell upon a lost distinction that was in any case but a surface manifestation of the division of labour." D. Harvey (1989a) The Urban Experience, Baltimore: Johns Hopkins, page 73.

[72]/ See T.G. McGee (1991) op cit, pages 6-7.

[73]/ Rural hinterlands in Asia also generally provide the population densities suitable for establishing a diversified regional economy -- population densities allow for high levels of transactional density which are

In the Singapore case, the increasing numbers of jet boats linking the Riaus to Singapore or the ubiquitous transport trucks moving between Johor and Singapore illustrate something of this dynamism. The space-economy transition is crucial to regional reformation, it affects and reflects the changing contexts of individual actions.

Improvements in circulation have the ability to bring new opportunities and influences to rural areas. However, this process does not occur *deus ex machina.* It is often local agents who drive the transformation of spatial relations (e.g., new private bus routes or state-built infrastructure) and who take advantage of emergent possibilities as the space-economy is convulsed. Mega-urbanization is a form of extensive globalization where the perceived opportunities (and differences) at the edge draw investors and workers alike to the new landscape which they are in turn forming.[74]

In terms of opportunities, investors currently seem to be seeking out the economic rents available by tapping into once rather remote but now potentially accessible rural settings, especially in search of cheap land and labour. With advances in accessibility, large economic rents may be achieved by being at the cutting edge of transformation. The 'edges' of economic opportunity found in mega-urban zones are especially attractive to investors because the frenzy of growth is so intense and access to a global hub is usually easy (as in the Growth Triangle).

Beyond the possibilities of land speculation, once 'remote and rural' areas are also especially conducive to establishing new production and/or recreation complexes because of the characteristics of labour.[75] These traits include:

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pre-requisites for a flexible region.

[74]/ This theme came out strongly in interviews with workers and employers.

[75]/ Although not in the Growth Triangle case, rural hinterlands in Asia also generally provide the population densities suitable for establishing a diversified regional economy. Population densities allow for high levels of

1) low cost
2) inexperience in wage labour and thus less prone to militancy
3) more easily retrenched in the event of a slow-down (e.g., 'back to the farm').

As Storper and Walker have pointed out, cheap and flexible labour in and of itself is not enough to guarantee investment -- cheap labour on a world-wide scale is plentiful. This is indeed the dilemma of 'false cheapness.' If real costs were lower in poorer areas, more industry would have previously moved to the most depressed regions of the Third World than has so far been the case.[76] Rather, the location and accessibility of the labour as well as productivity must also be considered (i.e., the spatial context of the labour process is crucial).

Besides needing 'thick' local circulation levels, mega-urban zones also need global connectivity. Singapore presents the regional periphery with a superb communications and transportation centre. This 'uplink' to the world economy gives the region a global presence and is the source of a good deal of investment.[77] The Growth Triangle would not exist if not for Singapore's strategic niche in the global flow of commerce.[78] Singapore's global niche is a central part of the region's differentiated and distinct offerings.

7. Differentiation

Much like world cities, mega-urban zones are also characterized by differentiation.

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transactional density -- a pre-requisite for a flexible region. McGee goes further to argue that the socio-economic apparatus of rice paddy production predisposes work forces to inclusion in mixed, flexible labour markets. See T.G. McGee (1991) "The Emergence of Desa-Kota Regions in Asia," in Ginsburg, Koppel and McGee (eds.) op cit, page 14; see also H. Oshima (1986) "The Transition from an Agricultural to an Industrial Economy in East Asia," Economic Development and Cultural Change, 34 (4), pp. 783-810.

[76]/ See M. Storper and R. Walker (1989) op cit, page 73.

[77]/ The 'uplink' is crucial, for example, to Johor's official policy of 'twinning' its resources with Singapore's global connections. See Johor State Economic Planning Division (1992) Johor Operational Master Plan, Johor Bahru.

[78]/ In the global view of international investors, Singapore and Johor are spectacularly close. As Peter Woo of Hong Kong's Wharf Holdings has put it "We see Singapore and Johor as one entity." - New Straits Times, 19/4/92:2

Within the regional ensemble, the distinctions between Singapore and its periphery are the most evident, but one should also note the differentiation within the new spaces in the regional periphery.

As I will outline in Chapters IV and V, in Johor and the Riaus, changes in employment structures and the diversification of economic activity traditionally linked to urbanization are occurring over a wide area and in once remote village communities. In the past, the urbanization process and the social and economic developments (such as differentiation) which it entailed were thought of as 'city-based' phenomenon. The mega-urban model argues that we need to think of urbanization as region-based urbanization.[79]

Region-based urbanization reflects an eclectic mix of creativity, opportunities and constraints which are coming to characterize 'rural' spaces. Like many frontier zones, the regulatory control capacity of governments in mega-urban zones (and of Johor and the Riaus) is small and the new arenas of accumulation in the hinterland are bursting out of control.

The trend to regional heterogeneity, spawned by the mix of agents and the lack of regulatory control, is magnified as the contexts of individual action are continually shifted. The impingement of global market forces must be seen as the primary element shifting local opportunities and constraints and thus as underpinning (but not determining) local

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[79]/ This point has important consequences for development planning. For example, rather than witnessing a full blown urban transition (the population moving form 'rural' to 'urban' areas) as has been so long predicted, many areas in Asia are now experiencing a 'space-economy' transition where extensive areas, often many miles from urban cores, are developing very rapidly. The implications of this trend are at least two-fold. First, it will be necessary to rethink projections of population distributions for the future (and thus for service delivery plans) as cities may no longer be the centres of growth. Second, the mega-urban model is changing the very way that 'modernization' is reaching the countryside. Traditionally, the impulses of 'modernization' were considered to diffuse down through an urban hierarchy and eventually into the hinterlands (i.e., urban based and biased social change). This pattern is being supplanted in the mega-urban zones by a 'region-based' modernization process. Once 'rural' and 'backward' areas may well be experiencing deeper and more rapid social change than that found in secondary cities.

transformation.[80] This said, it is also useful to remember the agency of local governments and developers in negotiating their new spaces within the global grid of possibilities.

To attract investment, the mega-urban regional ensemble needs to differentiate itself (from other regions) on a global scale. As will be shown, the regional complex of Singapore, Johor and the Riaus has been asserted in the sphere of global investment precisely in light of its (presented) unique offerings as a region (and in terms of the distinctions within the region). It is a self-defined region consciously composed by its elements in order to mark its space in the circuits of global investment.

It need not be argued that differentiation is solely the result of conscious local agency and design. The specific mix of 'local' contingencies and unintended consequences is by definition unique to each region. Regional differentiation is also the result of the specific manner in which each arena has been incorporated into wider economic realms. The incorporation process has representational and circulatory dimensions. The way a given region is perceived from the 'outside' (i.e., what 'distinguishes' it) will affect of investment patterns and other forms of interaction (as the case study illustrates, is the case in the Growth Triangle).

8. Summing-up: The Models of Mega-Urbanization and World City Formation

Although specific mega-urbanizing regions vary in their detailing, they reflect a generalized set of spatial changes. The specific outlines of the Growth Triangle will be addressed throughout the dissertation. For now I should like to redraw the key elements of the mega-urban model. First, it avoids the artificial duality of rural and urban and examines processes. These processes are based on a space-economy transition that has woven a complex

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[80]/ It is the mix of broadly similar contextual variables (technology, global economic trends and local inventiveness) which gives mega-urban regions their mix of familiarity and distinctiveness. The enterprise of individual and institutional agents within given settings are fundamental to regional formation and the uniqueness of each regional melange.

web of transactional space throughout the once 'distant' rural hinterland. Second, this web is fundamentally affected by levels of circulation. Third, mega-urban regions tend to present highly differentiated and tumultuous landscapes. Fourth, mega-urban regions in the main are archetypically closely linked to the world economy (i.e., they are a grounded manifestation of globalization).

The global link is important. Gottman also foresaw the necessity of this linkage:

> It seems a necessary condition of a megalopolis is a hinge articulating two or more networks, one of them a national internal network, and the other an international and overseas network.[81]

I am arguing that this hinging function is most effectively carried out by a world city -- especially a world city with entrepot functions such as Singapore. Singapore is the well-spring of the tremendous cash influx which is swamping and revamping the space-economies and land-use regimes of Johor and the Riaus. In the case of the Growth Triangle, the mega-urban shadow zone needs its globally articulated, world city core.

While the models of mega-urbanization and world city formation have applicability to elements of the regional ensemble it is their integration which provides the interpretive axis of this piece. For this reason, a 'regional approach' has been adopted. Yet this regional approach must be 'open' and straddle the middle space between the global and the local.[82] The middle space is critical to understanding the region's unfolding but it is also a difficult terrain to map.

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[81]/ J. Gottmann (1990) Since Megalopolis: The Writings of Jean Gottmann. Baltimore: Johns Hopkins Press, p.164.

[82]/ In this sense my approach is distinct from Sayer's portrayal of what the 'New Regional Geography' is all about. He suggests that the new regionalism seems to operate at any scale (i.e., being conflated with locality at any scale). See A. Sayer (1989) "The New Regional Geography and Problems of Narrative," Environment and Planning D Society and Space, 7, pp. 253-276, page 255.

F. METHODOLOGIES AND MIDDLE SPACE: THE GROWTH TRIANGLE AS OPEN REGION

1. The Meso-Scale

> Equidistant from the stars and the atoms are the familiar middle ground distances of the geographer. (P. Hagget)[83]

This study is about middle space. Its focus is the emergence of an open regional economy. However, analysis at the regional or meso-scale is a tremendously daunting task.[84] It can make research frustrating and unfocused. I say unfocused because the road maps of macro theory lose some of their directive capacity as one explores new backroads and ungazetted landmarks.[85] Further, the meso-scale lacks the potential depth and containment which one might achieve from a very focused study of a village undergoing change.

In some ways, the points I have just made are overstatements: all research is shaped by *a priori* theoretical positioning and no local place is contained. However, my point is not so much meant to create caricatures of the micro and macro, but to highlight the difficulty of the meso-scale where there is less to hold on to 'going in.'[86]

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[83]/ Peter Hagget in his aptly titled The Geographer's Art, cited in D. Gregory (1994) Geographical Imaginations, Cambridge, Mass: Blackwell, page 55.

[84]/ For useful discussions of the issues of scales of inquiry, see B. Dewalt and P.J. Pelto (1985) Micro and Macro Levels of Analysis in Anthropology: Issues in Theory and Research, Boulder Colorado.: Westview; A. Giddens (1984) The Constitution of Society, Berkeley: University of California Press; or N. Smith (1989) "Uneven Development and Location Theory," in R. Peet and N. Thrift (eds.) op cit, pp. 142-163, page 145.

[85]/ The tensions between theorization and empirical study are very much a concern of the present study. However, rather than engage this arena of debate in an explicit vein I have decided to set about writing an analysis which is informed by discussions surrounding such dualisms as theory-general and empirical-local but which is not consumed nor directed by them. For a review of discussions in this area see A. Sayer (1991) "Behind the Locality Debate: Deconstructing Geography's Dualisms," Environment and Planning A, 23, pp. 283-308; David Harvey (1987) "Three Myths in Search of Reality in Urban Studies," Environment and Planning D: Society and Space, 5, pp. 367-376; or D. Massey (1993) op cit.

[86]/ Those emphasizing the state (e.g., Poulantzas) and/or national economies (e.g., the French Regulationists) would find this something of an overstatement. These authors place a great deal of emphasis on the meso-scale as outlined by national economies/polities. However, the growing transcendence of national boundaries, regional inequalities and political fragmentation have rendered the nation state an increasingly difficult unit of

2. Differentiation and Dynamism

The unevenness, scale and pace with which spatial transformation is occurring has a number of research implications. First, the very differentiation process which attracts the eye makes a reliance on both detailed site-specific studies and broad regional statistical generalizations moot. Second, it is not possible to present the full scale of spatial change at its many levels. There are simply too many elements implicated in spatial change. Third, the fluidity and currency of the changes I am investigating makes for a moving target. One can at best outline the region's trajectory based on a mosaic of 'triangulations' of elements of change.[87] As outlined in subsequent chapters, the processes I have researched seem to have peaked in 1992 when I did the bulk of my field work. For the sake of continuity, I have decided to focus on 1992 as the focal point for data (in most cases).

3. Issues Directly Relating to the Growth Triangle

A broad-based study of regional transformation also needs to be set in the practical confines of the forms of information which are available at the meso-scale (see also Appendix 1). In the Growth Triangle, hard data on regional change *in toto* are difficult to come by. This is not simply because of the difficulties one might expect in using different national data sets.[88] It is also part of the nature of the research focus. Part of the economic success of the nations

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analysis. See works of N. Poulantzas (1978) (Trans. P. Camiller) State, Power, Socialism, London: New Left Books; M. Aglietta (1979) A Theory of Capitalist Regulation: The US Experience, London: New Left Books; A. Lipietz (1984) Mirages and Miracles: The Crisis of Global Fordism, London: Verso or cf. R. Fagan and R.B. LeHeron (1994) "Re-interpreting the Geography of Accumulation: the Global Shift and Local Restructuring," Society and Space, (12), pp. 265-285.

[87]/ This difficulty is a key one affecting research in most mega-urban regions. It was the focus of a workshop at the "Conference on Managing ASEAN's Mega-Urban Regions," AIT, Bangkok, Nov 30-Dec 03, 1992.

[88]/ In the present case, the difficulties of the meso-scale have been aggravated by the complexity of dealing with five different political entities (for data) and three nations. The Growth Triangle region, as a whole, is extremely fragmented in terms of data availability and quality.

involved and of the Growth Triangle itself is based on the representation (statistical and otherwise) of the contours of change. In this case, a kind of boosterism characterizes official data (on which investment decisions are made) and even the work of local researchers.[89] Data on regional change is part of the representation/marketing of the region and must be seen in this light.[90]

Further, there is a great deal of sensitivity about releasing data on the region and its transformation because: 1) of the sense of competition which pervades the local marketplace (information about change is key to competitive positioning and is guarded.); 2) of the geo-politics involved in the regional reformation and the extreme sensitivities in Indonesia and Malaysia to Singapore's 'capture' of a new hinterland within their territories;[91] and 3) the role of ruling political parties and actors in directly profiting from the region's unfolding.

4. Research Approach

In this light, I have had to make some methodological decisions. From the start, my approach is synthetic.[92] I have tried to keep my research approach as broad as possible. I have

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[89]/ I am not suggesting that local researchers have consciously obscured the reality of change, but rather they have tended to emphasize policy dynamics and potentials rather than negativities or consequences. This is especially the case in Singapore. Singapore is a very small working milieu where the feeling of national pride and vulnerability is pervasive. The work of the 'intellectual elite' (who often are educated abroad with government funds and work at the University or government-linked research institutes) must be part of the national development capacity. As such, their work is both theoretically advanced and well argued, but highly selective in its scope.

[90]/ The most up-to-date data often must be gleaned from materials designed for prospective investors.

[91]/ Indeed, I was unable to get required research permits (after some 18 months of waiting) from both Indonesia and Malaysia on the topic at hand. This was in spite of the best intentions of well-connected local researchers who volunteered to collaborate with my study. It was even impossible to get topographic maps of southern Johor made after 1970 as they were deemed sensitive for security concerns. Research on Batam was also aggravated by the fact that (for geo-political reasons) the Singapore government does not publish any figures on trade with Indonesia.

[92]/ The process of synthesis is particularly given to bias. This is in part because the region, as the realists might have it, is a chaotic conception. The mere fact of co-presence does not signify a causal relationship. It is this fact which opens up regional inquiry to bias. On the other hand, the contingent relationships can reveal

relied on three main lines of inquiry: 1) empirical examination - I spent some 13 months in the region 'seeing for myself' the validity of statistical representation and official pronouncements. Research involved 110 qualitative interviews with regional politicians, business leaders, academics and citizens (I did not try to quantify their comments but rather worked at drawing out key contours of regional change from a compilation of the differing perspectives;[93] 2) newspaper searches -- despite the fact that the news media in Singapore and Malaysia are very controlled, the local newspapers are excellent sources of fragmentary data which may then be recombined to yield wider insights; and 3) statistical materials -- although there is no 'Growth Triangle' data set, I have used a wide array of statistical sources to make key connections and identify key trends. It is in the reconfiguration of existing data that this study's major research contribution is to be found. The motif I have employed to focus analysis has been the consideration of circulation and differentiation.

In sum, information about the unfolding of the region is shadowy. This is part of the source of my title. Much like the region's famed *Wayang Kulit* (shadow puppetry), one is faced with the dancing, shifting imagery of change behind veils of secrecy, discourse and complexity which obscure some of the realities of the unfolding scene. The portrait of the region is admittedly something of a shadow, a silhouette of a complex, highly textured and variegated process based on an array of sources from a variety of angles. However, as in a chiaroscuro

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a good deal more than might be the case with pre-given assumptions about causation. Further, as Sayer has suggested, it is not always desirable to reduce the object so that it is less chaotic, because it may never-the-less of interest as a whole. A. Sayer (1984) Method in Social Science, London: Huthchison, page 227.

[93]/ This approach is derived from E. Schoenberger (1991) "The Corporate Interview Research Method in Economic Geography," Professional Geographer, 43 (2), pp. 180-189.

painting, the shading of edges and the evocation of shadows can perhaps provide a truer sense of depth and fullness than may result from imposing stark outlines.[94]

I will begin my search for the roots of the current changes from the margins (first historical, then spatial) and spiral towards the core (Singapore today). At each stage a layer will be added to the regional portrait. The resultant image will itself be shifting from 'islands in the stream' (cargoes) to 'shadows beneath the wind' (finance and information) as the examination of the Growth Triangle as open region unfolds.

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[94]/ I am struck by Greenberg's thoughts on the way the impressionist painters of late 19th century Paris tried to come up with new, less defined modes of representation to come to terms with the city's emerging rural/urban belt. C. Greenberg (1994) "Region Based Urbanization in Bangkok's Extended Periphery" Unpublished PhD Thesis, University of British Columbia.

CHAPTER III.

HISTORICAL LINKAGES, PATTERNS AND TEXTURE OF CHANGE IN THE GLOBAL/REGIONAL INTERFACE

...East and West must seek my aid
Ere the spent hull may dare the ports afar
The second doorway of the wide world's trade
is mine to loose or bar. (Rudyard Kipling on Singapore)[1]

> ... it is not so much from the fine character of its foreign merchantmen that the harbour of Singapore is chiefly remarkable; it is rather from the extraordinary variety of nondescript native craft that swarm the shoaler waters.(J. Cameron 1865)[2]

A. INTRODUCTION

The present day space economy of the Growth Triangle region has not arisen fully formed *deus ex machina.* The local, regional and global forces 'producing' the region have remade and recombined the accumulated sediment of past epochs. The 'geologic analogy' linked to Doreen Massey's book Spatial Divisions of Labour rings particularly true for the strata underlying today's volcanic changes.[3] Yet, as she has more recently clarified, one needs to

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[1]/ From Rudyard Kipling's "The Song of the Cities," cited in Wong Lin Ken (1991) "Commercial Growth Before the Second World War," in Ernest Chew and Edwin Lee (eds.) A History of Singapore, pp. 41-65, page 41.

[2]/ J. Cameron (1865) cited in Wong Lin Ken (1960) "The Trade of Singapore, 1819-1969," Journal of the Malay Branch of the Royal Asiatic Society, 33 (4), page 71.

[3]/ D. Massey (1984) Spatial Divisions of Labour, London: MacMillan, see also her 1993 comments on the 'geological metaphor' in Progress in Human Geography, 17 (1), pages 71-72.

move beyond the stasis of periodized cross sections and engage the nature of change - to look at geomorphological processes within the shifting landscapes of developing space economies as well as understanding the substratum, the foundation rocks and tectonics of today's landscape.

In the following chapter I will outline how the process of change occurred, from one strata to the next, so to speak. In each instance I will be attempting to draw out the importance of the patterns set in place in the past (e.g., Singapore's centrality) as old 'local worlds' were destroyed and new ones created: the foundational elements of today's regional (re)formation.

The four main themes in this chapter are:

1) the manner in which earlier periods established key patterns in the way circulation came to be managed and set the tone for the political economy of today. In particular, the early linkages between world city formation and regional development are crucial.

2) the specific nature of the opening up of the lands of the region and the 'positioning' of various groups of actors and locations within the emerging space economy (e.g., ethnicity, class and gender);

3) the multiple and overlapping geographies which cross-sect and define the region. These separate geographies lie at the root of the political fragmentation of the region into the three parts of today and are central to its present re-constitution;

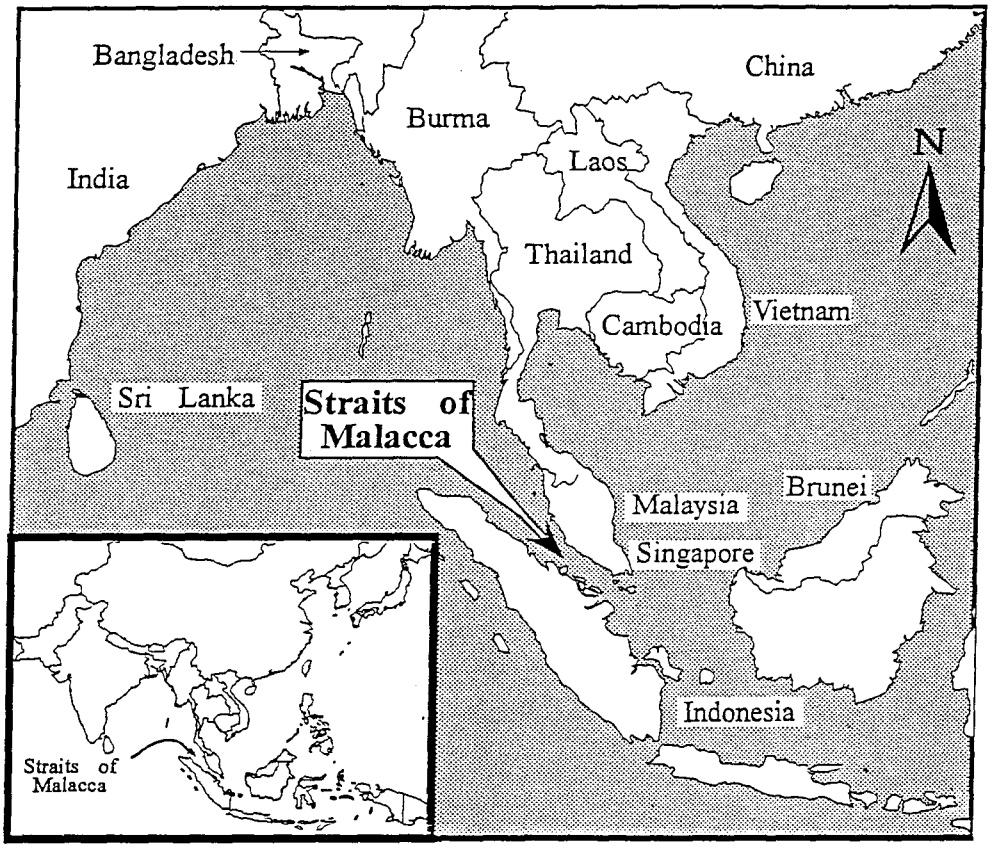
4) the way in which historical records bring home the fact that the triad described as the Growth Triangle is indeed one of a series of recombinations of the constellations of the Riau Islands, Singapore and the Malay peninsula. The times when the three areas of my concern have been integrated far surpass the period when they have been sundered.

The global/regional interface with which this study is so concerned should not be seen as a strictly recent phenomenon. Historically, the space economy of the region surrounding Singapore was in all instances deeply articulated with the shifting currents of circulation and increasingly impinging global markets. The region in its various apparitions and global dynamics can not be separated.

B. LOCATION, LOCATION, LOCATION, AND MORE: EARLY PRECEDENTS IN THE CONTROL OF CIRCULATION.

1. Circulation

Figure 3.1
The Location of the Straits of Malacca



The themes of circulation and the interaction of the global and the regional run very deep into the heart of the region's history. The ebbs and flows of trade, much like the coming and going of the monsoons, have long provided the backdrop for the rise and fall of the various polities which have occupied the precious geographical niche where the sea lanes of east and west meet. The history of 'The Golden Khersonese,' as the Malay Peninsula was known in

more ancient times, is one of shifting power bases and struggles to control this critical bottleneck in global geography.[4]

At the macro scale, the geographical niche occupied by the Straits of Malacca and the societies which governed it through to the 19th century was critical for three main reasons. First, the Straits were located at the intersection of the Indian, Chinese and Southeast Asian realms of commerce. Second, the area was one of only two points (the other being the Sunda Straits) in an 8,000 mile journey where the spice trade from the islands of present day Indonesia to the Middle East and Europe could be monopolized (due to the constricted passages of the Straits). Third, the Straits' position was very well suited to the nature of sea-faring and its relation to climate and the monsoons during pre-square rigged and pre-steamship times.[5] The monsoons dictated the flow of goods and people. Running with the monsoons, the trading ships from Gujerat would come to the straits between March and May, southern Indians from October to January, the Chinese would arrive between November and March and need to wait until June to return, and the Javanese would arrive in the months between May and September and wait until January to return home.[6] It is because of the fortuitous conjunction of monsoonal wind patterns that the region is sometimes called "the lands beneath the winds."

2. Early Urban Nodes

Due to the waiting periods and mismatched timing of the monsoons a distinct niche developed for the port which could provide needed services and supplies. These services

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[4]/ P. Wheatley (1961) The Golden Khersonese: Studies in the Historical Geography of the Malay Peninsula Before AD 1500, Kuala Lumpur: University of Malaya Press.

[5]/ Singapore, and the Straits' area was also fortunate to be in an excellent location to act as a refuelling stop for steamships as well as attracting sailing ships. See Francis E. Hyde (1973) Far Eastern Trade, 1860-1914, London: Adam and Black.

[6]/ C. Mary Turnbull (1989) A History of Malaysia, Singapore and Brunei, Boston: Allen and Unwin, page 29.

included maintaining a market of suitable goods for trade, ship repairing, financing credit, providing storage and providing mediation between the different cultures involved. From early on then, the successful urban centre in the Straits was a service economy based on 'global' circulation. Yet local connections and the localized manner in which control capacities were produced have also long been important to urban development in the region.

a) Sri Vijaya

The first halcyonic society in the region was that of the Sri Vijayan empire, which dominated the Straits from circa 700 to 1100 AD.[7] The urban core of Sri Vijaya was located some 75 kilometres upstream on the Palembang river in Sumatra, seemingly not a propitious location for the control of the Straits of Malacca. The city rose to power for a number of reasons which set important precedents.

The city's location, although outside shipping lanes, did give ready access to valuable commodities in the jungles of Sumatra. Intra-regional trade has always been important to the success of trade at the wider, global scale. The volume of local goods finding their ways into larger markets served to underpin the successes to be found in capturing the transient flows of international trade moving through the region. Ores (notably gold and tin), jungle products (such as aromatics and resins) and the products of the sea (such as seaweed) were critical to the sustenance of the regional entrepot.[8]

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[7]/ The dates for the Sri Vijayan period are unclear. Sri Vijaya, was known to be Buddhist and was considered a great city of learning as early as 671 when it was visited by the famed Chinese scholar I Ching on his pilgrimage to the holy land of India. Wheatley (1961) op cit, page 42.

Andaya and Andaya (1982) provide a useful caveat here. As our historical references for the period are largely Chinese it may be that the record is simply 'blind' to other trading centres which thrived without dependency on China but which may have also had a great impact in the region. It also needs to be noted that archaeological evidence does not fully support the accounts of Arab and Chinese traders and Malay lore. - See Barbara and Leonard Andaya (1982) A History of Malaysia, Hongkong: Methuen, pages 18-22.

[8]/ O.W. Wolters (1970) The Fall of Sri Vijaya in Malay History, London: Lund Humphries.

The small scale but critical trade was also important in that it bound the Malay traders to tribal peoples (*orang asli)* who collected the products from throughout the hinterlands (increasing the density of transactions of the region) and it was the source of very important links with China (a core of old world global trade) where the demand for these goods was greatest. The importance of a local base of products is still present today and underlies Singapore's quest for fuller regional integration in the guise of the Growth Triangle.

Due to the nature of its products (i.e., rainforest and sea commodities) and a number of successful embassies, the state of Sri Vijaya had very close relations with Imperial China.[9] It was also physically well placed on the Northeast Monsoons which Chinese traders would follow in their ships. The monopoly of this key external relation was a fundamental source of the city's power and thus of its ability to control the surrounding lands and seas.[10]

The maintenance of the city's centrality was further maintained through the use of 'pirates.' Pirates would escort passing ships to the harbour, charge them tariffs and enforce the authority of Sri Vijaya. A Chinese visitor writing in 1225 noted that,

> If some foreign ship passing this place should not enter here [Sri Vijaya], an armed party would certainly come out and kill [the sailors] to the last man.[11]

Through its enforced centrality of circulation Sri Vijaya became even more powerful and exerted its influence from Puhket through the Riaus and possibly beyond to Borneo. In so

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[9]/ This argument is strongly advanced by O.W. Wolters (1970) op cit. One should note, however, that the vast majority of the documentation on Sri Vijaya comes from Chinese sources and this may serve to somewhat overplay the importance of the China Trade.

[10]/ The conquest of other littoral Kingdoms of the Malay Peninsula, in particular those which held control over the Isthmus of Kra, where goods could be transhipped to avoid taxes on sea lanes (see Figure 3.1), allowed Sri Vijaya to deny any potential competitors the space to establish a rival entrepot.

[11]/ Cited in Wheatley (1961) op cit, page 298.

doing it set the precedent for the centrality of the control of circulation and provided the model for subsequent regimes.

In summary then, two key themes emerge from the Sri Vijayan case. These are: 1) the early interdependencies between regional and global trade in the development of successful urban nodes in the region; and 2) the need to control circulation.

There is, however, more to the regional geography than the importance of multivalent trade which the Sri Vijayan case highlights. The region was, and is produced by people acting on the possibilities and constraints offered by new connections (both globally and regionally).

C. PEOPLING THE STRAITS

An historical examination is also useful in that it allows one to illustrate the roles of key groups of actors in the region and how they were 'positioned' by the events of geography and history as the regional space-economy evolved and how they exerted agency which in turn defined the region and its global niche. Thus, a useful way of apprehending the development of the region is to create a kind of historical triangle, looking at three major groups of regional actors: the Malays, the Chinese and the Europeans.[12] This division is useful in that it allows one to unpack at least a crude triad of the many geographies which make up the region and set the scene for later developments. My goal is not to recount the length of each group's history in the region but rather to use each to highlight general themes regarding the nature of the region, its ongoing production, the growing centrality of Singapore and the roots of the eventual fragmentation of the region. As such, the historical narratives will be partial.

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[12]/ This is not meant to subsume the role of the region's South Asian population. However, their impact on the formative period of development can not be considered to be on the same scale as that of the other three groups I have mentioned. For discussions of the South Asians in the region see the excellent K. Sandhu (1969) Indians in Malaya, London: Cambridge University Press; or M. Stenson (1980) Class, Race and Colonialism in West Malaysia, Vancouver: University of British Columbia Press.

1. The Malay[13] World of Trade

The view of the region's development is often couched in the terms of the those who came to colonize the it.[14] As Carl Trocki has noted, "No country's history is so well documented yet so poorly understood as that of the former colony."[15] Pushing the colonial story to the side for the moment,[16] I will trace the region's premier Malay lineage and the way its 'story' winds through the region's geography and history.

The ebbs and flows of Malay identity are deeply bound up with the rulers of Sri Vijaya and especially with their descendants in Malacca and the Malaccan lineage. These leaders provide the threads of the Malay narrative as espoused in *Seraju Malayu* or The Malay Annals and The *Tuhfat al Nafis* or The Precious Gift and provide the touchstone for this analysis.[17]

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[13]/ The term Malay has evolved over the years, denoting different groups in different settings. At times it has specifically meant the Melayalu of Sumatra (the 'originals'), or the peoples of Riau and Johor and more recently, in British Malaya, the term was used to refer to a polyglot of archipelagian peoples. The general self-definition of Malay identity which seems to have emerged over the years is that one is Malay who follows Malay customs, speaks Malay, is Moslem and draws links to Malay history. Malay history is in turn very much the history of the trading centres of the region and its rulers.

[14]/ For example, see F. W. Swettenham (1920) British Malaya: An Account of the Progress of British Influence in Malaya, London: Bodley Head.

[15]/ Carl Trocki (1979) Prince of Pirates: The Temenggongs and the Development of Johor and Singapore, 1784-1885, Singapore: Singapore University Press, page xiii.

[16]/ Though this is many ways impossible as even the Malay texts I have used have been re-presented in a manner which clearly differs from the origins, if only in that a sense of grounded historicity is forced upon them. For a discussion of some of the difficulties of translating and interpreting Malay works of History see the thoughts of Shelley Errington (1979) "Some Comments on Style and Meanings of the Past," in Anthony Reid and David Marr (eds.) Perceptions of the Past in South East Asia, Singapore: Heinemann Educational Books, pages 26-42 or A.H. Johns, (1979) "The Turning Image: Myth and Reality in Malay Perceptions of the Past," pages 43-67.

[17]/ C.C. Brown (1952) 'Seraju Malayu, The Malay Annals,' Journal of the Malay Branch of the Royal Asiatic Society, 25, (2) and (3); Ali al-Haji Riau (trans V. Matheson and B. Andaya) (1982) Tufat al-Nafis (The Precious Gift), New York: Oxford University Press. Note that these narratives are highly partial. The Malay tradition of historical narratives was a verbal one (and the 'boundaries' between historical 'fact' and a 'good story' were not always clear. For example, the word for history *Hikayat,* has a more emotive connotation than *Seraju* which is related as annals). Further, the narrative was committed to paper during the time of dominance of a Malay sub-grouping called the *Bugis* and thus plays up their role. The version of the Annals I am using is referred to as Raffles MS 18 and is considered 'the' text.

My focus on the narratives of the Malay leaders is due to a lack of other sources and the fact that this story contains *daulat* a term which captures the lineaments of royal power stretching down from Sri Vijaya to

From the outset, the Malay narrative has an important early phase in 'Tamasek' or *'Singapura.'*[18] Malay history describes a pre-British incarnation of Singapore (of several thousand people) founded by refugees from the collapse of Sri Vijaya. After injustices by the ruler of Singapura to a faithful servant the city was said to have been attacked by a swordfish. A successful defensive strategy was suggested by a child who was then slain by the leader for fear of future competition and "the guilt of his blood was laid on Singapura."[19]

This metaphorical guilt and Malay claims to early precedents in Singapore are important to understanding the positioning of Singapore within the current Malay geographical imagination. The island represents an abberation and something of a 'lost space' at the heart of the Malay world (i.e., Indonesia and Malaysia) as it evolved through British and Chinese incarnations. In any event, *Singapura* is usually seen as an historical stopping off point on the way to the great Malay trading city of Malacca.

It is believed that Malacca was founded by refugees from Singapore after the Malay trading town there was sacked by the Javanese. The new settlement was to become the cosmopolitan city of Malacca which The Malay Annals claims to have eventually achieved a

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Malacca (see John R. Bowen (1983) "Cultural Models for Historical Genealogies: The Case of the Melaka Sultanate," in K.S. Sandhu and P. Wheatley (eds.) Melaka, V. I, New York: Oxford University Press, pp. 162-179, page 164).

I am not suggesting that a 'history from below' is unwarranted, simply that for present purposes, with present resources such an undertaking would far outstrip the purpose of the piece. The roles of the leaders do capture something of the historical Malay condition and illustrate the essential linkages binding the region as a whole within the Malay world and world view.

[18]/ The Malay Annals relates that Singapore was founded by a man named Sri Tri Buana who was an offspring of the founders of Sri Vijaya (pages 50-55). (These founders are in turn seen as children of none other than Iskander Zul-karnain (Alexander the Great, who is seen as an Islamic King) who were magically delivered on a hill near Pelembang, Sri Vijaya.) He found his way to the Riaus, then to Tamasek (which he calls Singapura - Lion City - on seeing a strange lion-like beast there, pages 61-62) and thence to Malacca.

[19]/ The Malay Annals, op cit, pages 80-81.

population of 190,000.[20] The city of Malacca is an archetype of the role of core trading centres in the region and it is around Malacca that so much of the region's Malay history swirls, it is a history of movement and trade, of 'Islands in the Stream.'

Much like Sri Vijaya, Malacca's power came in part from the control of circulation and its legitimacy among sea pirates (or *orang laut* - 'people of the sea').[21] Although Malacca was in form a city state (having a very limited directly controlled hinterland) its influence also became widespread by dint of the status of its leaders and its centrality in the Malay world view.[22]

The power and success of Malacca's rulers also arose from the maintenance of key external connections and ideological positioning. Like Sri Vijaya, Malacca's ascendency was highly dependent on its trade ties with China, but also with the Islamic world of trade. Malacca was visited by the famed Admiral Zheng He (himself a Moslem) and a member of China's Imperial house was married into the Malaccan lineage. Malacca was also heavily influenced

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[20]/ Though most estimates put the number in the 60-70,000 range. - Turnbull (1989) op cit, page 28; and Andaya and Andaya (1982) op cit page 44.

[21]/ For a definitive examination of the Orang Laut and the wider grouping of 'Sea-Nomads' see D.E. Sopher (1964) The Sea Nomads, Singapore: Singapore National Museum, esp. pages 320-321.

Malay tradition has it that the rulers key 'possession' in the underpopulated areas of the Peninsula were the subjects. The Orang Laut were treated respectfully by Malaccan leaders and even married into the royal family. The reciprocal responsibilities engendered by the system allowed the Malaccan rulers territorial power far outstripping their military might.

In classical Malay times, subjects were so valued that it would seem a waste to use them in battle. Indeed, military power was thought of in terms different from the European norm, "In all the countries Below the Winds the peasantry and the army are one and the same and if the army suffers the country itself falls into ruin. Consequently, when the natives of this region wage war, they are extremely careful and the struggle is wholly confined to trickery and deception. They have no intention of killing each other or inflicting any great slaughter because if a general gained a real conquest, he would be shedding his own blood, so to speak." -- Ibrahim, Ibn Mohammed (1688) The Ship of Sulaiman, trans from Persian by J. O'Kane, London: Routledge, 1929, page 90, cited in Anthony Reid (1988) Southeast Asia in the Age of Commerce, 1450-1680: Volume One, The Lands Below the Winds, New Haven: Yale University Press, page 123.

[22]/ The Malay faith, Islam, language (termed '*Bahasa*' and including behaviour) and custom (*adat*) were all honed by the Malaccan leaders and spread from Malacca.

by Islamic Gujerati traders who sojourned there awaiting the return monsoon. The adoption of Islam is a watershed in the city's history and is given much weight in the Malay Annals.[23] Islam found its way from the port of Malacca to the more peripheral areas of the Peninsula where it served to bind together disparate groups and areas (including the present day Growth Triangle). In this way another precedent was set for today, the role of acting as linchpin between different cultural/economic realms (as Singapore strives to be a node in both Chinese and western circuits of enterprise).

The policy of circulatory control and ideological hegemony was matched by what is perhaps a slightly paradoxical cosmopolitanism (this tension between control and internationalization/openness is also found in modern day Singapore). Malacca, by 1509, was home to some 4,000 foreign merchants. Reports from the chronicler Pires suggest that no fewer than 84 distinct languages could be heard in the streets of Malacca.[24]

A further key to the Malaccan ruler's success was the entrepot system they employed where traders were free to carry out their business and the state's wealth accrued from ship tariffs and personal trading (again, there are strong echoes with present day Singapore in this). Of course all of this would not have been possible if not for the city's enviable location in the flow of international trade. As Pires wrote,

> Malacca is a city that was made for merchandise, fitter than any other in the world; the end of monsoons and the beginning of others, Malacca is surrounded and lies in the middle, and the trade and commerce between different nations for a thousand leagues on every hand must come to Malacca.[25]

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[23]/ Though Wake has suggested that the Islamic bias may be somewhat overdrawn in the current version. See C.H. Wake (1983) "Melaka in the 15th Century: Malay Historical Traditions and the Politics of Islamization," in Sandhu and Wheatley (eds) op cit, pp. 128-161.

[24]/ Datuk Zainal Abidan bin Abdul Wahid (1983) "Power and Authority in the Malay Sultanate: The Traditional View," in Sandhu and Wheatley (eds.) op cit, pp. 101-112, pages 106-107.

[25]/ Cited in Wheatley (1961) op cit page 313.

In such a critical location Malacca drew the covetous eyes of the newly arriving Europeans. The Portuguese took Malacca in 1511. However, although the Portuguese occupied the physical niche of Malacca they were unable and/or unwilling to adopt its institutional roles as the 'leader' of the region, as master of the *orang laut* or as contact node within established skeins of Asian commerce.[26]

The Sultanate carried on from a number of locations frequently attempting to retake Malacca through the formation of alliances with other Malay Kingdoms (attacking Malacca in 1512, 1515, 1516, 1519, 1521 and 1523). It was during this period of early exile that the Sultanate moved to the present day state of Johor to a site on the Johor river and thence in 1513 to the Riau island of Bintan (the multitudinous Riaus were home to the largest *orang laut* groups) and then later back to Johor.

Despite the perturbations of new comers to the region, the Johor Malays managed to maintain their system of accumulation even as their actual power base began to wane. They did so through a deft positioning of 'islands in the stream.' As Turnbull has written,

> The same resilience that allowed Malacca to rise fairly quickly in the 15th century enabled it [Johor] to surmount the vicissitudes which followed. Mobile and adaptable to their environment, living by a combination of piracy and trade, without fixed agricultural base, or large permanent city, the Johor Malays could quickly recover from the destruction of their cities.[27]

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[26]/ See Turnbull (1989) op cit, page 41; or L. Andaya (1975) The Kingdom of Johor, 1641-1728: Economic and Political Developments, New York: Oxford University Press. Note also that the Portuguese were deeply ignorant of the region. The first Portuguese emissary to Malacca (who was also given instructions to take the town) was sent with a list of questions to ask the Chinese. The queries illustrate European ignorance. "He was to ask the Chinese where they lived and at what distance away, and at what times they came to Malacca, for what purpose, from what place they set out, what merchandise they brought ... whether they were Christians or Pagans, whether their country was large, whether moors and others dwelt among them who shared neither their faith nor their laws, and if they turned out not to be Christians, what they believed and what they worshipped, what customs they observed, in what direction was their country and by what was it bounded, and all other information concerning them." V. Purcell (1948) The Chinese in Malaya, Toronto: Oxford University Press, page 23.

[27]/ Turnbull (1989) op cit, pages 51-52.

The quick recoveries were due to their hold on the *orang laut* and the acquisition of wealth from the seemingly omnipresent flow of goods through the region. This said, the full resumption of the glories of the Malaccan Malay political elite could not occur without an alliance with the new military force in the region - the Dutch. The resurgence seemed complete when a joint Dutch-Johor force finally rousted the Portuguese from their Forsa at Malacca in 1641.

While the new Dutch lords of Malacca struggled to balance the ledgers, using any means available to attract traders, Johor-Riau found new wealth (at the expense of Malacca) as its relations with neighbouring states and its stature in the Islamic world made it a stopping place preferable to Malacca for many traders. In 1687, the Governor of Dutch Malacca wrote,

> The number of ships going to Riau is so great that the river is scarcely navigable as a result of the many trading vessels in it...here traders are paid half in constant [specie] and half in cloth; whereas in Malacca they are given whatever cloth available and not the newest styles as in Riau.[28]

The peace with the Dutch eventually also came to an end as the Dutch set about deflecting Chinese Junk traffic to their central port of Batavia (present day Jakarta) and their clear military supremacy came to be questioned. The decline in the perceived benefits of alliance with the Dutch was matched by the incursion of another newcomer to the area - Britain. The British, needed a trading point and were increasingly attracted to Riau, fuelling its growth and undercutting Dutch authority (often trading in smuggled spices escaping from the VOC monopoly).

By the late 18th, early 19th century the coherence of the Malay Malacca-Johor polity was a shattered image of its former self. The lineage was in disarray and the advisors of the rulers had risen in importance greatly. In particular, the Temonggong, originally an

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[28]/ Cited in Andaya (1975) op cit, page 38.

administrative official for the royal house, had eclipsed the Sultan in terms of actual power.

In 1819, the Temenggong came to make an arrangement with the British whereby they could set up a base on the sparsely settled island of Singapore.[29] Knowing that this would anger the Dutch and was on very dubious legal footing, the founder of British Singapore, Sir Stamford Raffles, turned to the remnants of the Johor royal family, in particular a dispossessed son, Hussien. Raffles approached him for permission to set up the port at Singapore in return for British recognition of his position and 5,000 Spanish dollars/annum. The British then named him Sultan Hussien of Singapore.[30]

The 1824 Treaty of London further undermined Malay power and had profound affects on the region. It gave the British areas north of, and including Singapore and the Dutch the lands to the south (and including Sumatra - but not Aceh). The Treaty cut the Malay world in half severing the links between the Malayan Peninsula and Sumatra from which it had derived its language, religion, political and cultural traditions dating back centuries to the Sri Vijaya period.[31] It put an end to the oscillation of seats of power between Johor and the Riaus. It is the first of two critical partings which divided today's Growth Triangle into its elemental parts, now hiving off the Riaus.

Though interaction still occurred, the centrifugal forces of separate colonial territories interceded and essential holism of the region was undermined by the barriers of colonial

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[29]/ For an excellent account of this event see Ali al-Haji Riau (1985) op cit, pages 226-228.

[30]/ It was slow communications which saved Raffle's vision of a British Singapore. Although many in the British colonial system had thought Raffle's move unwise, by the time that the issue had been passed through the India Office in Calcutta and thence to England the British and the Dutch were focusing their attention on diminishing their animosity in Europe (and excluding the competitors such as the Germans or Americans) and were on their way to signing the Treaty of London of 1824, ceding Singapore to the British. See N. Tarling (1962) Anglo-Dutch Rivalry in the Malay World, London: Oxford University Press.

[31]/ See the evocative discussion in B. Andaya (1979) Perak, The Abode of Grace: A Study of an Eighteenth Century Malay State, Kuala Lumpur: Oxford University Press.

geographies (i.e., the social construction of new spaces). The region began to fragment as it was drawn into an emergent global, European-centred industrial capitalist economy.[32]

It is also at this time that the fuller expression of British power comes to be felt in the region through punitive raids on recalcitrant local lords under the guise of pirate eradication campaigns.[33] In destroying 'piracy' the colonialists also outlined a sea change in Malay history. No longer could a leader whose fortunes had reached a low ebb seek wealth on the seas and thus revive a bid for power.

The struggle to rest control from the Malays expressed the spatial restructuring of the accumulation process in the region: away from 'the local' towards rather more global theatres of accumulation. Singapore was explicitly seen by Raffles as a global 'emporium.' He wrote,

> Unlike the Ports of India, which are the natural portals of the commerce of the country, ... Singapore is a mere depot, where goods, the produce of other countries, are stored, until a favourable opportunity for their reshipment to their final destination.[34]

The growth in European circuits of trade may be seen in shifts in trade flows. In 1829-30, 23% of Singapore's trade was carried out by native *perahu*, and 77% by square-rigged vessels; by 1865-6 the figures were 8% and 92% respectively.[35] The control of circulation had shifted to European hands. Yet at the same time that the regional trade regime was being re-

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[32]/ For a comprehensive review of the early internationalization of Singapore's trading regime see Wong Lin Ken (1961) "The Trade of Singapore, 1819-69," Journal of the Malayan Branch of the Royal Asiatic Society, 33 (4), Singapore: Tien Wah Press Ltd.

[33]/ For a discussion of the fluid and often dubious definition of the 'pirate' in the struggle to control the local sea lanes see N. Tarling (1992) "The Establishment of Colonial Regimes," in N. Tarling (ed.) The Cambridge History of Southeast Asia, New York: Cambridge University Press, pp. 5-78, pages 56-59.

For a less academic account, written in the 19th Century, see C.B. Buckley (1965) An Anecdotal History of Old Times in Singapore, Kuala Lumpur: University of Malay Press, pages 49, 107 and 119.

[34]/ Cited in Wong (1961) op cit, page 159.

[35]/ Wong Lin Ken (1960) op cit, page 295. One should also note that local and regional trade was still immensely important, accounting for over half of trade revenues.

centred and focused on Singapore and its international links, there was a dispersion of activities (and the sale of British and Indian goods) ever more deeply into remote areas of the Archipelago.[36] Growing global links were bound up with a newer form of regional integration. As Singapore's centrality grew, the Riaus sank into obscurity.

The Riaus became an increasingly peripheral zone in the Dutch East Indies which could not compete with the British sea power in Singapore. In this way the centre was swiftly turned into the periphery - and a new centre was born - Singapore - but this centre would evolve to become resolutely British and Chinese not Malay.

The story of the Riaus is one of decline and slumber. Riau fell long and hard from its glory days as the centre of the Malay world. Although the Riaus retained a Dutch residency, it was said by P.J. Begbie, a chronicler of the region (in 1834), that it had "nothing to recommend it to notice, except a pretty fort"[37] and that,

> It does not, however, appear likely that Rhio [Riau] will ever rise into any importance as a commercial settlement, so long as the neighbouring British settlement of Singapore exists.[38]

Only 50 kms from what is today the largest container port in the world, the once powerful trading islands of the Riaus became rural backwaters. The waters of the archipelago were still the conduit of life but their role was as a source of fish and transport to work on other islands rather than a realm of control over the sinews of trade and a connection to the

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[36]/ See Wong (1961) op cit, pages 76-77. Further on he writes, "The full economic significance of Singapore as a Port of call for Malaysian traders was not to be measured in the profits it brought to the mercantile community of Singapore. It was to be found, rather, in the extension of trade into practically every corner of the Archipelago from which a prow [small ship] could put out for Singapore." (page 85).

[37]/ P.J. Begbie (1834) The Malayan Peninsula, Embracing its History, Manners and Customs of the Inhabitants, Politics, Natural History & etc.from its Earliest Records, Madras, page 304 , cited in Khoo Kay Kim (1991) Malay Society, Petaling Jaya: Pelanduk Publications, page 78.

[38]/ Ibid

fleets of the world. As the Riaus began their long decline Johor was being reborn in a new guise.

As the Temenggong's traditional sea-based sources of power were drying up, he began to find favour with the British when he decided to support their anti-pirate campaigns and acted as mediator with other Malay power brokers. The upshot of this collaboration was that the Temenggong was given sanction for his claim to holdings on the mainland - vast tracks of virtual wilderness - which became, with historical resonance, the present day state of Johor.

Through to about 1800, Johor was not the focus of any large groups of population.[39] The situation in Johor changed as a number of (externally originating) synergies developed. In the earliest stages, Johor's economy came to grow along with increasing external demands for resources found naturally in its forests. In particular, southern Johor was first opened up in the quest for a latex like substance known as 'Gutta-Percha' which was one of the many crops which had long been harvested from the forests by the *orang asli* and passed along to Malay traders and then to China.

Gutta Percha was found to have industrial uses and the seemingly insatiable European demand transformed its harvesting. Quicker returns and higher volumes could be achieved through cutting the trees down rather than tapping them. The region's emergent entrance into the European industrial/colonial economy is illustrated by the rapid and pervasive exploitation of the country side. It is estimated that between 1844 and 1848, 270,000 trees were cut down in Johor to supply Gutta-Percha for industrializing Europe.[40] Exports through Singapore

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[39]/ The area was intermittently used by 'orang laut' for temporary bases and the Johor river had provided the location for numerous short lived incarnations of the Johor-Riau government but it was basically uninhabited until as late as the early 1800s.

[40]/ Trocki (1979) op cit, page 88.

increased from 168 *piculs*[41] of gutta percha in 1944 to 9,296 *piculs* in 1847.[42]

During this period there was very little actual settlement in the state, and the 'urban system' was largely a number of 'river houses,' at the mouths of rivers from which harvesters would set off upstream to gather Gutta Percha.[43] These river-mouth houses were important as they allowed the Temenggong to control the flow of Gutta Percha and reap windfall profits from its sale (again, to accumulate through the control of circulation).

Once the Gutta Percha stocks were nearly exhausted the leader of Johor needed another source of capital acquisition from his lands. This source came in the form of Chinese gambier and pepper planters who set up crude plantations upstream on Johor's rivers drawing wealth to both the Temenggong and Singapore.

The state's potential for growing export crops (because of large amount of 'empty land') and the increasing numbers of Chinese available to 'colonize the landscape' (as the great Chinese diaspora was beginning[44]) gave the Temenggong the elements he needed to build a 'New Johor' ('*Johor Bahru*'). This is a critical moment in that it set the stage for the development of a hinterland through which capital, people, goods and information could be funnelled to, and through Singapore - providing Singapore a regional base from which to accumulate capital and which would need its services -- including connections to global

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[41]/ One *picul* is equal to 100 *catties* or about 135 pounds.

[42]/ Wong Lin Ken (1961) op cit, page 99.

[43]/ This system was called the *Kangchu* system and Trocki argues that it was imported from the Riaus as the rigour of the British systems of land control was not suitable for the fluid and rapidly opening frontier zone. Trocki (1979) op cit, page 90.

[44]/ See Purcell (1948) op cit; L. Pan (1990) Sons of the Yellow Emperor: The Story of the Overseas Chinese, London: Secher and Warburg; or Victor Limlingan (1986) The Overseas Chinese in ASEAN, Manila: Vita Development Corporation.

markets.[45] In turn, market information, capital, materiel and labour were marshalled in Singapore for the opening of the new lands.

The majority of surplus value generated on the frontier tended to find its way to Singapore where the outfitting of (Chinese) planters and transhipment generally occurred and where those who profited from the trade (usually Chinese merchants) often lived. "The settling of Johor was thus achieved through an arrangement between the Johor government and Chinese capitalists."[46]

To this point one should add the sweat of Chinese labour. The Johor economy was built by Chinese workers. By 1860, just over ten years after their initial incursions, there were an estimated 15,000 Chinese gambier planters in Johor.[47] By 1889, it is estimated that 150,000 of the state's 200,000 people were Chinese.[48] Johor had in many ways become a Chinese state with a Malay head. By 1884 the geographer Skinner wrote that,

> The whole population of the state, including Moar, is probably over 100,000, and is remarkable for its larger number of Chinese than Malays. The exact numbers have not been ascertained.[49]

The opening up of the hinterlands by capital investment produced new spaces of opportunity for settlement and commerce - drawing workers in search of a livelihood.[50] When

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[45]/ External market forces were coming to have increased impact on the region as the Steamship reduced sailing time from Europe to Singapore to 5 weeks and the opening of the Suez Canal in 1869 further reduced the time of travel 'distance' to the Malay world from the once rather more distant European one.

[46]/ Patrick Guiness (1992) On the Margin of Capitalism: People and Development in Mukim Plentong, Johor, Malaysia, Singapore: Oxford University Press, page 4; and Trocki (1979) op cit, page 115.

[47]/ Andaya and Andaya (1982) op cit, page 140.

[48]/ Eunice Thio (1969) British Policy in the Malay Peninsula, 1880-1910, Singapore: University of Malay Press, page 96.

[49]/ A.M. Skinner (1884) The Geography of the Malay Peninsula, Singapore, page 54.

[50]/ This system was dominated by Chinese with strong links to Singapore but the developments also eventually occasioned an influx of Malays/Sumatrans to sites on the west coast. It is estimated that at this time approximately

Temenggong Ibrahim died he left his son Abu Bakar to continue to develop the Johor lands from the state's new capital of Johor Bahru. Abu Bakar managed to keep Johor within the economic sphere of Singapore but avoided its political control, a trend critical to understanding today's events. He did this through a shrewd manipulation of British sensibilities, Malay tradition[51] (i.e., his links to the Malay past) and the hard work of Chinese pioneers.[52]

Abu Bakar was lauded by the Europeans in Singapore for his control of the Chinese. The Singapore Free Press wrote in June 1895, that,

> The good government of Johor, and its adaptation to Orientals was very conspicuous in the case of the Chinese...the Sultan had a very great personal influence over the Chinese and understood them... He did not deal with their societies repressively, as had been done in the Straits, but controlled them through their headmen.[53]

The use of head-'men,' or *'Kapitan China'*[54] was an effective control device necessitated by rapid frontier development (extensive globalization) but it tended to lead to racial isolation of the Malays and the Chinese (differentiation) which still echoes so strongly.

The frontier period of Abu Bakar's rule established the rudimentary basis of Johor's plantation economy. The manner in which the plantation sector was opened up in Johor had

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50,000 Malays had come to live in Johor, most of these were from present day Indonesia. J.M. Gullick (1987) Malay Society in the Late Nineteenth Century: The Beginnings of Change, Singapore: Oxford University Press, page 5. The Malays would pass through the entrepot of Singapore on the pilgrimage to Mecca and take advantage of the earnings possible in the frontier areas to complete their passage. Thus, Singapore had taken the role of Malay entrepot as well. see Khoo Kay Kim (1991) op cit, page 148.

[51]/ As a European contemporary noted, "In tastes and habits he is an English gentleman." Cited in J.M. Gullick (1992) Rulers and Residents: Influence and Power in the Malay States: 1870-1920, New York: Oxford University Press, page 128n, see also 110 and 242-245; See also Cowan (1969) op cit, page 39.

[52]/ J.M. Gullick (1987) op cit, page 6. Note that Abu Bakar, the son of a Temenggong eventually had himself made of Maharajah (a term he imported from India) and then Sultan.

[53]/ Cited in P.S. Sundram (1958) "Economic Development in Johor 1862-1895," Academic Exercise, University of Malaya, Singapore, page 6.

[54]/ Malay 'headmen' were also appointed, they were called *pengulu.*

profound implications for the Johor of today: 1) it developed Johor Bahru as a secondary theatre of accumulation, but primary centre of regulation in the state; 2) it established the close links between Singaporean/Chinese capital and Johorean land/leadership; 3) it underlies the settlement process in Johor as capital moved into relatively 'empty lands' and drew labour to it (from as far as China and India); and 4) above all, it illustrates the important symbiosis between Singapore as a global node and its emerging Malay-run hinterland. All four of these aspects are still evident today.

For the government of Johor of the late 1880s, the balancing of many interests became increasingly difficult to maintain. As Trocki has written,

> Johor in 1885 could hardly have been considered autonomous or self-sufficient. It was an appendage of Singapore that had somehow been taken over by an independent minded Malay chief. The ruler's authority was ultimately rooted in the colonial military establishment... The economy likewise, was simply an extension of the port's. The Chinese had conquered the jungle and populated the land and the taukehs [Chinese investors] probably took most of the profits... The Malays maintained the legitimacy of Malay rule and tried to survive between these two overwhelming forces.[55]

It is to these 'two overwhelming force' to which I now turn, briefly discussing the positioning of the Chinese and the Europeans/British. These discussions will set up the ensuing section which examines the interactions and over-lapping geographies of all three groups and eventual rupturing of relations between the three sets of actors (and consequently of their 'spaces') within the context of colonialism and its immediate aftermath, nationalist independence. In the latter event the full political separation of Singapore and Johor occurs.

2. The Chinese

'The Chinese,' can not be seen as a homogeneous group. The Chinese community was riven by ethnic divisions and distinctions based on place of origin, politics and level of

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[55]/ Trocki (1979) op cit, page 186; also cited in Guiness (1992) op cit, page 4.

integration with Malay society.[56] The bulk of the Chinese population lived a very insular life - often isolated from other Chinese of different clan backgrounds and from the European and Malay worlds save for momentary economic transactions. The unique 'space' of these pioneers is fundamental to understanding the spatialities of the region.

The Chinese have long been found in the Straits. In a very real sense the Chinese became the sweat which opened up much of the region's hinterland and they moved the goods which were the sinews from which its urban centres arose. Their internal organizations were important ties that bound the region together in a lattice work of communications largely outside that of the Malays or the Europeans (even today the Chinese networks are key conduits of capital circulation in the region -- see Chapter X).

The British settlements were especially attractive to the Chinese because of their openness, the emphasis on the free flow of goods (and early on, people) and their strategic positioning.[57] Singapore became a key hub of Chinese activities in the *Nanyang* (or 'south seas') as it provided direct links with the markets and sources of labour and capital in the homeland as well as commercial links to the west.[58] This point is, I think, crucial because it illustrates the way in which Singapore sat at the intersection of a number of 'geographies,' in

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[56]/ In particular, one group of Chinese residents very much became unique citizens of the region. These were the 'Baba Chinese.' These were Straits-born Chinese who often intermarried with Malays and fused a new culture mixing attributes from each of their origins. The Malacca Babas who often did not speak Chinese none-the-less adhered to their Chinese ways of life. They also spoke the unique tongue of Baba Malay. The Babas saw themselves as separate from the more recently arrived traders and labourers. "The Baba felt his apartness from the newcomers and was inclined to despise them." Purcell (1948) op cit, page 62. See also J. Clammer (1980) Straits Chinese Society, Singapore: Singapore University Press, page 7.

[57]/ The British also had the least overseas Chinese blood on their hands in the Nanyang. In the early centuries of colonial rule in the region there were a number of pogroms in which some 10,000 Chinese were massacred by the Dutch in 1740, and some 22,000 by the Spanish in Manila in 1591. These massacres illustrate the ambivalent nature of the relationship between large Chinese populations and the new colonial masters.

[58]/ J. Jackson (1968) Planters and Speculators, Kuala Lumpur: University of Malaya Press, page 2.

this case, the British colonial system and China's *Nanyang* (as Singapore's role as meeting place of 'East' and 'West' is so important today).

The British came to see the usefulness of Chinese labour and commerce and took to encouraging Chinese migration. From the 1881 to 1910, 3.5 million Chinese arrived in the Straits Settlements.[59] At its peak, Singapore received over 100,000 male Chinese immigrants a year.[60] From 1821 to 1901 the Chinese increased their share of Singapore's population from 24.5 to 72 per cent.[61] Many of these sojourners might move on (say to Johor) and there were also large numbers returning to China. However, the huge influx gave the city a distinctly Chinese stamp. Early Singapore was peculiar in that the population of the city was largely male[62] and that only a fraction of Singapore's Chinese were born locally.

Within Singapore, the Chinese established what the Europeans of the time where fond of calling an 'empire within an empire.'[63] The Chinese population found its order largely outside the European establishment. For example, a commission studying the 'Chinese Situation' in the Singapore of the late 1800's noted that,

> "within a week or so of each other, two steamers had landed in Singapore 3200 Chinese immigrants who had simply been swallowed up in the vast Chinese

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[59]/ Purcell (1948) op cit, page 205, citing Ta Chen "Chinese Migrations with Special References to Labour Conditions," page 84. The straits settlements include Penang, Malacca and Singapore.

[60]/ Joyce Ee (1961) "Chinese Migration to Singapore, 1896-1941, Journal of Southeast Asian History, 2 (1), pp. 33-52. In 1895 the total Chinese migration equalled 190,901.

[61]/ L.F. Comber (1959) Chinese Secret Societies in Malaya, New York: J.J. Augustine Inc., page 50, extracted from M.V. Del Tufo (1949) Malaya: Report of the 1947 Census of Population.

[62]/ It was unusual to find Chinese females in early Singapore. In 1850 there was one Chinese female for every 12 males. Buckley's Anecdotal History notes that by 1837, "Up to this time, no Chinese woman had come to Singapore from China, and the newspapers said that, in fact, "only two genuine Chinese women were, or at any time had been, in the place, and they were two small footed ladies who had been some years before, exhibited in England." C.B. Buckley (1965) op cit, page 320.

[63]/ C. Trocki (1990) Opium and Empire: Chinese Society in Colonial Singapore, 1800-1910, Ithaca: Cornell University Press, page 23.

> population. Neither government nor police had any knowledge of their movements or any way of exercising control over them."[64]

Singapore presented the new arrival with a much more heterogeneous context than that found in the home village (or than the one generalized by the Europeans above). It was complex, but also incomplete.[65] Clan, dialect or other organizations stepped into fill the breach and often postured as kinds of families. The world of the *sinkeh* (new arrival) became quite circumscribed by their new family -- it would also likely ultimately affect their economic activity.[66]

Although there is a great deal of interest in the early Chinese merchants whose trading houses were the predecessors of today's powerful networks of Chinese capital within the region I will aim my focus closer to the ground where a Singapore's accumulation process was based and where control capacity was spawned (or 'produced').[67] This is the world of the Chinese labourer or coolie.

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[64]/ L.F. Comber (1959) op cit, page 148.

[65]/ Lee Poh Ping (1985) "World View of Social Belonging Among the Chinese in Malaysia and Singapore: The Case of Secret Societies, Clans and Dialect Group Associations," in Mohamad Taib Osman (ed.) (1985) Malaysian World View, Singapore: Institute of Southeast Asian Studies, pages 131-146.

[66]/ See J. Warren (1986) Rickshaw Coolie: A People's History of Singapore, New York: Oxford University Press, pages 36-39; or P.J. Rimmer (1990) "Hackney Carriage Syces and Rickshaw Pullers in Singapore," in P.J. Rimmer and L.M. Allen (eds) The Underside of Malay History, Singapore: Singapore University Press, pp. 129-160, pages 146.

These economic/clan groupings were called *Kongsi* or *kun*. The most notorious of these groups were the secret societies. By 1825 at least three *hui* (societies) were found in the city which were likely offshoots of the Triad society. Originally the Triad society was seen as a patriotic society whose aim was to throw off the yoke of the Manchu dynasty in China (headed by the 'foreigners - the Manchurians). Over time the society increasingly became focused on illegal activities. For a discussion of Singapore's secret societies see Mak Lau Fong (1981) The Sociology of Secret Societies, Kuala Lumpur: Oxford University Press. Trocki (1990) op cit presents a strong counter argument to the conflation of secret societies and *Kongsi*, arguing that the later were essentially alternative economic organizations rather than political entities.

[67]/ Although some trading families remain important today (such as the Tan and Lee families) the majority of the key agents in today's 'Chinese' circuits of capital made their fortunes in rubber and tin in the 1920s or in other activities in the period from the 1950s onwards. For an excellent summary of the rise of today's key families see Jamie Mackie (1993) "Changing Patterns of Chinese Big Business in Southeast Asia," in R. McVey (ed.) Southeast Asian Capitalists, Ithaca: Cornell, Southeast Asia Program, pp. 161-190, pages 187-190.

The Chinese were escaping extreme deprivation in China and were drawn by perceived opportunities in the *Nanyang*. Chinese labourers came to the region with hopes of making their fortunes and to remit money home before their eventual return.[68] They had stepped into 'the void' of forming global and regional labour markets and in so doing their agency was integral to regional production.

The labours of these individuals were critical elements of what Saskia Sassen (Koob) has called, in another time and another place, 'command and control capacity.'[69] Early Singapore, like all world cities, needed the toil of a depressed class to sustain its grander pretensions -- this class was the coolie.

Labour shortages which had traditionally typified the region were also emerging on a global scale as a global economy more fully took root and labour was needed for the growing production of industrial crops and to build the colonial infrastructure. Limlingan has noted this global labour shortage in writing,

> A major bottleneck for the continued expansion of the economic system was the lack of cheap labour. Since the European and the American countries had by this time outlawed African slavery, China became the source of cheap labour. Thus developed the so-called coolie labour.[70]

It is from the Chinese labourers or coolies that the bulk of today's population descends. These labourers were part of a massive movement of humanity from southern China throughout the world where they came to be involved in many of the mega-projects of the day and to carry

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[68]/ For a useful outline of indentured labour in Singapore see W.L. Blythe (1947) "An Historical Sketch of Chinese Labour in Malaya," Journal of Malayan Branck of the Royal Asiatic Society, 20 (1), pages 69-74.

[69]/ Saskia Sassen-Koob (1988) The Mobility of Labour and Capital, New York: Cambridge University Press.

[70]/ Limlingan (1986) op cit, page 29.

out the work needed to build a globalizing space economy.[71]

In Singapore, coolies worked in construction, warehousing and as rickshawmen. I will focus on this latter grouping. The city's internal circulation was supported by a large army of rickshawmen. At the turn of the century there were some 20,000 registered rickshaw pullers in the city.[72] This number accounts for 1/8 of the city's estimated total Chinese population of 164,000 at that time. The rickshawmen were the lifeblood of the city moving its goods and people. "In 1917, a twelve-hour survey at six main bridges in Singapore recorded 72,772 crossings of rickshaws."[73]

The rickshawmen lived in unbearably cramped and unhealthy conditions.[74] The extreme densities, reaching 6 men per room, served to inflate land values and thus to push up rents still further and increasing densities.[75] The enclaves which were designed by the British to control the spread of the Chinese became extremely dense warrens of poverty and ghettoization.[76]

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[71]/ As David Steinberg has written, "In a few places, Chinese settled down as peasants ... Some came as merchants from the beginning, simply moving outward along their commercial channels from China coast cities. But the great majority came, packed in the steerage of the coolie ships, as simple labourers, owing passage money to those for whom they first worked. They came to work on the European plantations of Sumatra's East Coast Residency, to build the 2,000 miles of Thai railways, to work the tin deposits of Southern Thailand, Malaya, Bangka and Billiton, and to Asia, as labour for the docks, hand sawmills, rice mills and the building trades." - David J. Steinberg et al. (eds.) (1971) In Search of South East Asia: A Modern History, New York: Praeger Publishing, page 216.

[72]/ James Warren (1987) At the Edge of South East Asian History, Quezon City: New Day Publishers, page 88.

[73]/ Warren (1987) op cit, page 113.

[74]/ Warren quotes a senior British army medical officer as saying that Singapore "was a nursery for disease." - Warren (1986) op cit, page 278.

[75]/ Warren (1986) op cit, page 204.

[76]/ Though one should also note that the perception and representation of these spaces as such was fundamental to the construction of Chinese identity within the colonial mind-set. For examples of the European perceptions of 'Chinese spaces' see V. Savage (1992) "Street Culture in Colonial Singapore," in Chua Beng-Huat and Norman Edwards (eds.) Public Space: Design, Use and Management, Singapore: Singapore University Press/Centre for Advanced Studies, pp. 11-23. For a discussion of the partition of space in terms of Prostitution in early Singapore see J. Warren (1993) Ah Ku and Karayuki-san: Prostitutes in Singapore 1870-1940, New York: Oxford University Press.

These were the homes of the rickshawmen. Today, they are the posh gentrified boutique hotels, bars and shopping complexes of the Duxton Road area.

Conditions worsened as the colonial state came to see the rickshawmen as iminicable to their vision of Singapore as a 'modern' city, as new forms of transport such as the automobile and bus began to crowd the rickshaws off the roads. The systematic removal of rickshaws as slow-moving vehicles began in 1928. The situation was aggravated in the depression when the costs of rickshaws increased, new taxes were introduced and there was a declining availability of cheap housing which was increasingly taken up for *godowns* and storage.[77] The once critical elements of Singapore's internal circulation were increasingly and deeply marginalized.

The bleak existence in the urban core pushed labourers into a death spiral in search of alleviation (i.e., opium, dropping earnings, more opium), too frequently this pattern would terminate in suicide.[78] The decline in remissions home would occasionally bring a searching relative or wife. On arrival, the relative would see how the city had transformed (destroyed) their loved one, ironically as he had in turn transformed, or 'produced' the city -- a bleak reflection of 'creative destruction' of space economies as opportunities and constraints changed along with circulatory change.

It was these coolies who provided the services needed to maintain the flow of goods in the emergent world city. They were the sweat behind the emerging trading empires. Their world of circulation was a thin line from small villages in southeastern China to the great trading metropole, there their world became closed in. Their daily handling and movement of the materiel of empire mocking the claustrophobic realm of their living quarters.

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[77]/ Warren (1987) op cit, page 130. It is useful to note that this storage was needed because of the rubber boom transforming Johor.

[78]/ Warren (1986) op cit, pages 6, 220-222, 249-252.

I have spent this time on the lives of the coolies of Singapore for a number of reasons. First they are the builders of the city as much as the great trading houses and colonial masters. Second, their lot highlights the need of world cities to maintain and produce command control capacity through often extreme exploitation of certain groups (usually new arrivals) - the dual city which Castells has so often spoken of is an apt description of colonial Singapore. Third, the lives of the coolies illustrate the colliding and overlapping geographies of the region and how these combined to make the city what it was, and what it is. Finally, it is also important to layout the abject conditions of early Singapore because it is the way the city grew out of the conditions which underlies so much of the Chinese populations faith in the present regime and why criticism of that government need always remember what came before it.

Not all immigrants who came to labour in Singapore stayed in the city and the wealth of the city was not just a result of its own internal exploitation. A great number of Chinese migrants went to the countryside and there they established a form of production which would feed the growing city's need for regionally generated accumulation. These people were the gambier planters who opened up first the inner island area of Singapore and then Johor.

Chinese gambier planters moved to Singapore from the Riaus[79] at the same time as, or just before the European arrival. The gambier planters carved modern Singapore and Johor out of the jungle as they set about growing gambier. The crop was valuable for its use in beetle-nut preparations and was also used in leather preparation in China. Early on, most gambier was destined for China but eventually the European leather industries started to consume large

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[79]/ This is alluded to in the Precious Gift, The Bugis and Malays planted the Gambier, establishing several hundred holdings. The labourers who worked the lands were from China and with the cultivation of Gambier, Riau became even more populous. A good many of the Chinese on the Riaus likely came form Batavia following the riots of 1740 known as the 'Chinese Uprising' when many thousands of Chinese were massacred. See D. Lewis (1970) "The Growth of the Country Trade to the Straits of Malacca, 1760-1777," Journal of the Malay Branch of the Royal Asiatic Society, 43 (2) pp. 114-130.

amounts, especially with the lowering of British tariffs on gambier in 1830 (leather was a key industrial good at that time) and the opening of the Suez canal in 1869 which brought the previously rather isolated jungle tracts of the Peninsula that much closer to Europe.

The gambier crop was particularly suited to Chinese aspirations and resources within the region.[80] Gambier was attractive as it did not tie up capital for long periods of time as harvesting could begin very shortly after planting. Although the crop seemed so suitable to the needs of the planters and investors, it was however, highly consumptive of land. The production of gambier required that leaves be rapidly picked and processed in boiling water just at the moment they became 'ripe.' This tended to limit the scale of operations and thus the capital required. It also meant that there was a hefty demand for firewood to run the boiling pots -- keeping the planters near the jungle fringe.[81]

The gambier sector illustrates a duality of space which was developing within the island economy - a Chinese space based on links to China and the hinterland and a British/European one based on links to the empire and Europe. While these seemingly separate space-economies

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[80]/ Gambier production did not need a great deal of capital outlay in that it only required very rudimentary tools and a large pot in which to boil the leaves to extract the crops astringent. The dregs from the processing could then be used to fertilize the pepper crop which was usually grown along with gambier and provided slower but higher and more stable returns.

[81]/ The production of Gambier in the lateritic soils of the region also quickly depleted soil nutrients. As the Chinese were after maximum returns they would simply move on to new grounds.

As the Chinese opened up the lands of the interior of Singapore they met all kinds of dangers resulting from the rough conditions of the 'frontier,' often a scant 2-5 miles form the burgeoning urban core. These dangers included various diseases such as Beri Beri or 'miasma' (from the swamp air), bandits and most especially tigers. In 1839, the Singapore Free Press noted that it had only been within the last year or two that anyone had fell victim to tiger attack, "but in the week the news was printed two Chinese had been carried off in the neighbourhood of Serangoon road, a couple of miles from town." As the small plantations were pushed further into the hinterland the death toll increased, reaching about 12 Chinese agriculturalists a year. - Purcell (1948) op cit, page 91.

For a more general discussion see Blythe's comments that about 10% of coolies on any given mine project died clearing the land and 50% died in opening a mine. He writes of one mine site where in two months the fever and tigers reduced the work crew from 87 to 18. W.L. Blythe (1947) "An Historical Sketch of Chinese Labour in Malaya," Journal of the Malayan Branch of the Royal Asiatic Society 20 (1), pp. 64-114, page 111.

were developing along apparently isolated lines they came to overlap in the port of Singapore where Chinese labour would come in and Chinese gambier would be shipped out amid the flow of colonial goods (increasingly to Europe). This 'shared space' is critical to the arguments I am making in the piece as a whole. There are indeed many 'geographies' combining to make the region, it is their intersection in Singapore which underlies its centrality and its 'intermodality.'

The Europeans' gaze was still turned to the seas while the very lands around them were being transformed - partly due to their presence (as a source of capital, political stability and connections to Europe). The actual colonization of the landscape during this early period was very much carried out by individual (mostly Chinese) agents alone or in small groups literally hacking their way through the jungle, but bound to the metropole through instruments of debt and the ties of clan:[82] these are the tentacles through which early Singapore became the key regional theatre of accumulation.

As production levels grew the gambier crop became critical to the island's economy and was the source of internecine tensions. The struggle to control the lucrative gambier trade led to many conflicts between different fractions of Chinese capital and ethnicity. The intra-Chinese conflict was made all the more intense by the declining level of land availability in Singapore itself. The planters thus turned to Johor where land seemed voluminous. It was from this milieu that the Sultan of Johor found his labour to open up more formally, and indeed to colonize the Johor hinterland.

It was the Chinese Teo Chew gambier planters who had become increasingly marginalized by the Hokkien *Kongsi* in Singapore who moved into Johor. There they

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[82]/ Those Chinese who could monopolize and control the flow of trade (of goods, people, information and capital) with China and Europe held the key to wealth. For a discussion of the tensions between the three groups of traders (Chinese, Malay and European) see Wong Lin Ken (1961) op cit, pages 83-85.

established a special relationship with Abu Bakar and their 'secret society' was to be the only legal one in Johor until the early 20th century. Pioneering ventures into the mainland were financed by Teo Chew merchants who would also be the source of supplies and provide the final market for produce.

In "1864, Chinese merchants in Singapore claimed that they had advanced over 1 million dollars to develop the plantations [of Johor]."[83] The Teo Chew investors would accrue a great deal of wealth through managing the flow of goods and people in the provision of tickets from China, the provision of supplies and the purchasing of gambier for export. Often the rates for passage were usurious, the rates charged for supplies up to 400% of 'real' costs and the rate given for gambier about 1/4 of market value. In this way surplus value generated from the lands of Johor served to support the formation of Singapore. In 1864 over 200 provisions stores in Singapore relied entirely on the Johor Trade.[84] Yet more than the local (Chinese) commercial sector was dependent: so too was the city's success as a global entrepot.

It has been suggested that it was the gambier sector which supported the city-state and permitted its status as a free port.[85] The economic base accruing from the gambier sector was not solely based on provisions and trading. It was the sale of 'opium farms' (monopolies) in Singapore and Johor which provided (up to half) state revenues and permitted the lack of taxation on traded goods.[86] The opium farm licenses were a crucial point of intersection

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[83]/ Jackson (1968) op cit, page 17.

[84]/ Ibid.

[85]/ Wong Lin Ken (1991) "Commercial Growth Before the Second World War," in E.C.T. Chew and E. Lee (eds.) A History of Singapore, New York: Oxford University Press, pp. 41-65, page 54.

[86]/ See the excellent Trocki (1990) op cit, or the intriguing discussions of Lee Poh Ping on the struggles between 'Gambier society' and 'free trade society' in early Singapore. Lee Poh Ping (1978) Chinese Society in Nineteenth Century Singapore: A Socio-Economic Analysis, Kuala Lumpur: Oxford University Press.

between European and Chinese commercial worlds. It is important to emphasize that it was the local base (in opium revenues) which supported the emergent world city.[87]

By the 1890s there were some 210,000 Chinese in the state of Johor, almost wholly gambier planters in the south around the rivers whose business dealings were highly focused on Singapore.[88] At all times, the Johor economy was focused on Singapore. The key to Johor Bahru's success lay in acting as the funnel and connection point with Singapore. As Skinner wrote in 1884,

> The new town is a flourishing little place... It contains some 15,000 inhabitants, mostly Chinese, who are within reach of Singapore by a frequent service of coaches. There is no other settlement in Johor which can be spoken of as a town." [89]

The development of Johor Bahru as a local node was very much shaped by the circulation of goods, money, people and information with Singapore (which in turn had global links). The global connectivity brought the vagaries of world market trends more fully into the rural areas of Johor. Gambier production declined along with its price and by 1880 it began to disappear from the region.

It is important to emphasize that the Chinese pioneers of the gambier sector were the individuals who initiated and carried out the development of Singapore's hinterland. It was their toil which supported the process of accumulation in the urban core. Their activities thickened the transactional densities of the space around the city at the same time as advances in

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[87]/ Intriguingly, the 'opium farms' of the Riaus, Johor and Singapore were occasionally amalgamated by investors. See Yen Cheng Hwang (1986) A Social History of the Chinese of Singapore and Malaysia. 1800-1911, Singapore: Oxford University Press, page 232.

[88]/ The wealth accruing to the Chinese investors and their increasing control of larger sections of the countryside caused concern for the Johor government. This led to a provision which required that all merchandise traders stop at Tanjong Putri (later Johor Bahru). Although this led to massive discontent and eventually the ruling was overturned it does illustrate the struggle to control circulation and thus accumulation.

[89]/ Skinner (1884) op cit, page 32.

transportation and communication were bringing the city and region more closely into the orbit of a global economy centred on Europe. It was the 'overlap' of the European and Chinese realms of circulation which underlay the beginnings of Singapore's and the region's development. This said, their 'Chinese space' is critical to understanding their predicament and actions.

The world of the Chinese immigrant was based on a fission of place and clan network spatialities. The Chinese immigrants were driven by the limited opportunities available to them, however, their 'agency' was also a key element in the establishment of gambier as the main crop and in the shaping of the very structure of the 'rural' space economy (extensive globalization). Chinese labour and networks were crucial to the early production of the (open) region. The agency of individuals shaped and was shaped by changing circulatory and market possibilities presented by the transforming space economy. This space-economy had many overlapping levels and elements (most with Singapore at the core), but an important shift was occurring -- an increasing orientation towards industrial Europe.

3. European Incursions

With the industrialization of Europe (and improved communication and transportation systems), there was a shift in the way colonial possessions came to be seen and thus how they came to be positioned within a global grid of possibilities. Regional enclaves came to been seen as increasingly valuable not only as links in a chain of communication and trade (e.g., Cape Town, Colombo, Singapore) but as nodes of control for expanding colonial arenas of accumulation and extraction.[90] Colonies were coming to be increasingly seen as potential

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[90]/ T.G. McGee (1967) The Southeast Asian City, New York: Praeger, pages 52-75.

sources of newly desired raw materials to feed the ravenous maw of industrial competition (i.e., the shift to productive from mercantile capital).

The interest in acquiring colonial lands was also heightened by the growing realization of 'global space.'[91] The great land grabs of the mid to late 19th century were very much a response to advances in circulation as the world came to seem smaller and the distant threat of competitors claiming potentially valuable lands had a more pressing urgency.

This concern underlies the signing of the Treaty of London in 1824, the formation of the Straits Settlements in 1826 (under the control of the governor in India) and then in 1867 the placement of the Straits Settlements directly under the colonial office (as communications facilities and densities improved[92]). The latter event was spurred on, both by a fear of German intervention and the increased communication capabilities which allowed for direct control (such as it was) by London.

The development of Singapore as a control node was met by growing instability regionally. The incursion of new groups of actors (Europeans and large numbers of Chinese) in the context of a production boom under frontier conditions led to a good deal of turmoil in the struggle to establish land claims in Malaya. This turmoil was more deeply felt in the tin mining areas of northern Malaya (which had become virtual war zones) than in Johor. But the ripples were felt in Johor as well.

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[91]/ This was the time of Halford MacKinder and the rise of geo-politics on a global scale.

[92]/ In quick succession a number of developments occurred which shifted Singapore's relative position. A telegraph line was laid between Singapore and India (providing communication with Europe), steamships were increasingly prevalent; and the Suez Canal was opened (1869) cutting transit between Singapore and Europe by 25-30% or 10-20 days. See George Bogaars (1955) "The Effect of the Opening of the Suez Canal on the Trade and Development of Singapore," Journal of the Malay Branch of the Royal Asiatic Society, 28, pp. 99-143; or Chia Lin Sien (1989) "The Port of Singapore," in Sandhu and Wheatley (eds.) Singapore: The Management of Success, Singapore: ISEAS, pp. 314-336, page 315.

The growing instability which developed along with the development of new markets and possibilities led the colonialists in situ to a call for British control in Malaya. These calls were generally resisted in Britain until the 1890s.[93]

In the face of the official policy of non-intervention in local conflicts the argument for British rule shifted towards a cultural mission of saving Malay society which was allegedly crumbling under the weight of explosive change.[94] British territorial and economic designs came to be couched in cultural and social terms. The resident's (a British advisor to a Sultan of one of Malaya's many states) mission was not only to be a guiding hand in the affairs of state but was to bring 'civilization' (i.e., British law and as far as possible British ways of life) to the 'decaying Malay world'.[95] The construction of Malay identity as 'decaying' is important to the current stridency with which Malay identity is presently pursued in Malaysia.

A second rational for increasing direct British involvement was the argument that the rules of the various states needed to be brought into more conformity one with another, and the whole with Britain (i.e., in today's parlance, 'harmonization'). This rationale led to increasing calls for more uniformity among the states in terms of regulations and governance under the umbrella of British rule.[96]

Johor stood somewhat to the side of these developments but could not help but to be affected by the trend towards uniformity in regulation and British control. Indeed, the relative independence of Johor was as much a result of its de facto compliance with British norms as

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[93]/ Gullick (1992) op cit, page 136.

[94]/ Andaya and Andaya (1982) op cit, page 151.

[95]/ See Syed Hussein Alatas (1977) The Myth of the Lazy Native, London: F. Cass.

[96]/ It was this push, again generated from within the Straits bureaucracy which led to the eventual founding of the Federated Malay States (a group of about 1/2 the Malay states which came more fully under the British rule).

anything else. As Andaya and Andaya summarize,

> A major reason for the generally high opinion of Abu Bakar was his willingness to see Johor operate as an economic extension of Singapore. He went out of his way to attract investment by Singapore merchants and employed English lawyers to minimize the legal differences between Johor and the Straits settlements...For most of his reign Abu Bakar epitomized the kind of Malay ruler who would best serve British interests, leaving Singapore with no convincing justification for extending control to Johor.[97]

While in other areas of Malaya, such as Trengannu, Islamic law was being encoded, Abu Bakar could report that he had revised the Islamic code, making it "more comfortable to European ideas."[98] Abu Bakar treaded a very fine line between sublimation and independence but he did manage to keep Johor from full British control despite its closeness and economic interdependence with regional capital of Singapore.

To the British colonialists, Johor's position was increasingly seen less as a model and more as an exception, it came to be seen as an anomaly, something which stood out against the generalized process of British regulation in the various states of Malaysia. [99] The independence was seen as particularly troublesome by British plantation concerns who wanted to see deeper British regulation in the state (e.g., in terms of land ownership). A final development which sealed Johor's sublimation was the need to push a railroad through the state from the British north to Singapore. It was the railroad (control of circulation) which placed the issue of

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[97]/ Andaya and Andaya (1982) op cit, page 152.

[98]/ C.M. Turnbull (1964) "Origins of British Control of the Malay States Before Colonial Rule," in J. Bastin and R. Roolvink (eds.) Malayan and Indonesian Studies: Essays Presented to Sir Richard Winstedt on His Eighty-Fifth Birthday, Oxford: Clarendon Press, page 174.

[99]/ For a detailed outline of the drawn-out process of British incursions into Johor see C.D. Cowan (1961) Nineteenth Century Malay: The Origins of British Control, Toronto: Oxford University Press, pages 64, 125-129, 230-245 and 260-262..

soveriegnity squarely on the table and which pushed British resolve to place a 'resident'[100] in Johor.[101]

Bakar's son Ibrahim admitted a resident (in 1910) and this representative was quickly followed by numerous other British officials seconded by the colonial government. Ironically, despite its early resistance to British residency, Johor would come to have the highest number of British civil servants of any state in Malaya, further engraining and adding a new level to the already present interdependencies between Johor and Singapore.

The growing incursion of British geographies into the Malay realms was not only a result of the area's proximity to the communication hub of Singapore, but also came to enhance the city's development as a centre as well. British officials explicitly wanted Singapore to be institutionally and infrastructurally bound to the Malay states so that income from these states could shore up the city's income in times of recession.[102] Even a global entrepot needs a regional support base, yet the presence of an entrepot also pushed regional transformation.

The western areas of the state (and Malaysia generally) developed most rapidly as the rail network, roads and communications systems were originally run up the west coast. These networks were part of a strategy to open up Malaya and served to focus growth on an emergent urban structure focused on directly held British lands (e.g., such as the Straits Settlements along

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[100]/ Johor faced a cash flow problem due to the huge debts incurred with the construction of the railway. It was thus an interesting early example of a local liquidity crisis which required the concessions to global finance and politics.

[101]/ As Gullick has noted 'resident' is a "chameleon-like term" which refers to an official advisor from the British crown who usually wielded a good deal of power in affairs of state (outside of 'Malay traditions and customs - an ambiguous term which led to many conflicts). Gullick (1992) op cit.

[102]/ Andaya and Andaya (1982) op cit, page 184. This vision (of a supportive hinterland) would later consume Lee Kuan Yew at independence. See Chan Chee Heng (1971) Singapore: The Politics of Survival, Kuala Lumpur: Oxford University Press, page 4; or Gary Rodan (1989) The Political Economy of Singapore's Industrialization, Houndmills, Basingstoke: MacMillan; and Chapter IV of this thesis.

systems led to the development of urban nodes within the evolving space economy (largely up the western half of the state). The development of concentration points which are so typical of transportation 'advances' had profound social implications. The 'urbanization' process underpinned a process whereby the spaces of the Chinese and Malays came to be increasingly separated with the Chinese moving to the townsites and the Malays remaining in more rural areas.[103]

4. The Rubber Boom

With the decline in gambier revenues the Sultan of Johor began looking for alternative sources of income from his vast tracts of land. A number of British planters from India stepped in to introduce coffee but this did not succeed, dying out by 1900. The delivery of rubber seedlings from Kew gardens in London (originally smuggled out of Brazil) would change the state forever. The rubber boom is a defining moment in Malaysian, Johorean and Singaporean historical geographies.[104]

The demand for rubber exploded with industrialization, especially the growing demand for automobile tires. The regulatory changes needed to bring about the full scale incursion of foreign capital into British Malaya occurred first in areas of Malaya outside Johor, in the FMS, but eventually came to Johor as well. These changes included:

1) the imposition of new land regulations. "One of the first acts of the colonial

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[103]/ The ethnic division of labour which was emerging at this time was particularly evident in the rail system itself. Kaur sites employment figures for the rail system in 1922 showing 2058 'Indians,' 288 'Chinese' and 107 Malays. Amarjit Kaur (1992) "Working on the Railway: Indian Workers in Malaya, 1880-1957," in P.J. Rimmer and L.M. Allen (eds.) The Underside of Malay History, Singapore: Singapore University Press, pp. 99-128, page 107.

The opening up of new tracts of plantation lands which also accompanied transportation developments also led to the large scale importation of labour from India. These, largely Tamil labourers, would find themselves confined to plantation spaces. See Sandhu (1969) op cit; and Stenson (1980) op cit.

[104]/ See the overviews in C. Barlow (1978) The Natural Rubber Industry: Its Development, Technology and Economy in Malaysia, Kuala Lumpur: Oxford University Press; and J.H. Drabble (1973) Rubber in Malaya, 1876-1922: The Genesis of an Industry, Kuala Lumpur: Oxford University Press.

government was to repudiate Malay customary land rules and to formulate a Western-type land tenure system."[105]

2) the involvement of the state in labour recruitment for plantation owners (a trend still apparent today in Johor's tight labour market).

In these two developments one sees the establishment of key trends for today: the evacuation of the 'rights' of locals in the face of 'market forces' and the repositioning of labour within the state space economy. Once the gates were opened the impacts in Johor were immense.

The rubber boom was most noticeable on the west coast and was comprised of a mix of large scale plantations and 'small holder' plots planted by Malay and Chinese anxious to cash in on the land boom that was accompanying the push to develop rubber lands. Simultaneously with the growing incursion of market forces, large numbers of immigrants began to flood into Johor. These individuals with their parangs and muscles hacked out a new space-economy out of the Malay wilds (deeper than gambier had ever pushed).

There was money to made in converting lands to rubber. In 1910, in an effort to attract Singaporean capital to help open plantations, lands in Johor were alienated for a small premium of about 50 cents an acre. Four years later, in 1914, the prices ranged to 300$/acre for land 'in tapping'. By 1916 prices reached 1,000$ for an equivalent acre.[106] The potential profit margins saw the wholesale pulverization of older landuse regimes and virtual creation of a new space economy (and echoes for today).

The increasing land values were mirrored in a deeper level of connectivity with Singapore. "Records show that between 1911 and 1917, the number of lorries travelling between

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[105]/ Andaya and Andaya (1982) op cit, page 208.

[106]/ Shaharil Talib (1986) Global History at the Local Level: Batu Pahat 1900-1941, University of Malaysia, Seri Laporan, # 7, page 18.

Singapore and Johor increased almost five-fold from 11,500 to 54,000."[107]

Local peasants were at once offered new opportunities and witnessing the beginning of their loss of control. It was the commodification process (in part carried out by small-holders) which eventually underlaid the small holder's true dispossession of the land as exchange (in this case based on productivity) valuation began its ascent and came to replace use value.

In the context of chaotic land surveys and control procedures, the situation was one of bedlam. In Batu Pahat district, 22,000 acres of developed rubber lands went unrecorded.[108] Food crops were being ploughed under and the British stepped in to control the proliferation of small holders moving into rubber and to 'protect the Malays from 'price risks' by insisting that they remain in food production. This policy, while prescient in light of later events (the price collapse of the late 1920s and 1930s[109]) needs to be seen as also occurring at the instigation of large scale investors, mainly based in Singapore.[110]

The speed with which rubber mania came to envelope the landscape led to bottlenecks in investments. To fill this niche, agency houses such as Guthries, Sime & Darby and Harrison's and Crossfield were organized to act as conduits of investment and supervise any

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[107]/ Cited in Business Times, 19/08/92:1.

[108]/ Shaharil Talib (1986) op cit, page 51.

[109]/ The late 1920s and early 1930s saw the full downside impact of the developing global rubber market in a glut of supply. Malaysian rubber which was fetching over M$ 11 per kilogram in 1909 was selling for under a dollar by the end of 1929. In Johor, the monthly average price for rubber in 1927 was M$ 85.73/*picul*, in 1928 this had fallen to M$ 49 and by 1932 the price was M$ 9.29. (Shaharil Tahlib (1986) op cit, page 59) The 1930s also saw a push to bring lands more under the control of state apparatuses (i.e., administrative control, paying rent). The upshot of the combination of forces was massive starvation episodes among the pioneering small holders as they were marginalized.

[110]/ P.T. Bauer and Lim Teck Ghee have presented the seminal arguments in this regard. See P.T. Bauer (1948) The Rubber Industry, London: Longmans Green; and Lim Teck Ghee (1977) Peasants and their Agricultural Economy in Colonial Malaya, 1874-1941, Kuala Lumpur: Oxford University Press or for a useful summary of the tensions between estates and smallholdings see J. Drabble (1990) "Politics of Survival: European Reactions in Malaya to Rubber Smallholders in the Interwar Years," in P.J. Rimmer and L.M. Allen (eds.) The Underside of Malaysian History, Singapore: Singapore University Press, pp. 50-71.

number of holdings. This arrangement minimized management needs and maximized the potential levels of investment. It also supported continued accumulation in Singapore by both Chinese (e.g., the Lee family) and the British.

As a result of the combination of market shake-outs and state regulation, the plantation sector became quite large scale. The nature of the crop production regime (i.e., the emergent plantations) has reminded a number of authors of a kind of rural proto-industrialization.[111] The rubber boom saw the importation of large numbers of specialized wage labourers and was framed by the activities of large scale capital in concert with the state. This new form of industrial agriculture was largely removed from the realms of the Malays. It was in many aspects a form of proto-mega-urbanization (i.e., early extensive globalization).

The larger rubber plantations were the realm of the Chinese and the British. Chinese Plantations tended to employ Chinese labour and British Plantations tended to prefer Indian (Tamil and Malayali) labour. The result of these preferences was that there was very much three spatialities of populations. The Indians were largely confined to the estates, the Chinese were also on the estates but came to take up entrepreneurial roles in townsites as well.[112] The Malay's were relegated to their Kampongs and were largely outside the active commercial sphere.[113]

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[111]/ See for example, G. Myrdal (1961) Asian Drama, New York: Vintage.

[112]/ It should also be noted that a large number of Chinese were moved to 'New Villages' during the Malay Emergency (a communist uprising in the post-World War Two period which was linked to the Chinese). Later programs to open up the rural areas of Malaysia (e.g., FELDA, discussed below) were largely 'off-limits' to Chinese. Strauch presents data that of the 46,064 families settled by FELDA to 1977, 96.3% were *Bumiputra* (Malays), 1.9 % were Chinese. For a review of one New Village see J. Strauch (1983) "The Political Economy of a Chinese-Malaysian New Village, Highly Diversified Insecurities," in L.Y.C. Lim R.A.P. Gosling (eds.) The Chinese in Southeast Asia, Singapore: Maruzen Press, pp. 207-231.

[113]/ The ultimate expression of this segregation was the Malay reservation system where-in lands were put aside for Malays and where land was not to be used for cash crops. See P. Kratoska (1983) "Ends We Cannot Foresee: Malay Reservations in British Malaya," Journal of Southeast Asian Studies, 16 (1), pp. 149-168. The reservation

The spatial and occupational divisions were met with social and institutional ones. The differentiation which so characterized the economic sphere also came to impinge on social forms. For example, each ethnic group had separate school systems.[114] Each type of educational system in Malaysia emphasised cultural differences.[115]

It is with the colonial governance that ones sees the institutionalization of ethnic categorization of Malaya's (and Johor's) various peoples.[116] Along with the growing fragmentation of the population as a whole along ethnic lines,[117] the forces of empire were 'lumping' the Malays together as never before. The categorization process of the census greatly extended boundaries of who was Melayalu. For example, the Census of 1911 included under the heading of 'Malays,' the Javanese, Sakai, Banjarese, Boyanese, Mendeling (sic), Krinchi (sic), Jambi, Achinese, Bugis and 'others.' As Anderson has written,

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system was mostly found in the British controlled 'Federated Malay States' but there are reserve lands in Johor.

[114]/ This is not completely the case as educational opportunities for Tamils were very restricted because British thought of them as transient.

For an excellent discussion of education policies and 'ethnic mapping' more generally see Lim Teck Ghee (1984) "British Colonial Administration and the 'Ethnic Division of Labour' in Malaya," Kajian Malaysia 2 (2), pp. 28-66.

[115]/ As current PM Mahathir Mohammed has put it, "The Malays and the Chinese may live as neighbours. They may meet each other in their daily business and even socially. But when they retire, they retire into their respective ethnic and cultural sanctum, neither of which has been truly breached by the other. And in their own world their values are not merely different, but are often conflicting," Mahathir bin Mohamad (1970) The Malay Dilemma, Singapore: Asia Pacific Press, page 5.

[116]/ The system of governance (which predated the British, but which they carried on) was one where local populations were to be controlled by head men (almost always men) of their own ethnic origin (thus *Kapitan China*). For the Malays this leader was the *Penghulu*, a Malay head in charge of a Mukim who would control 5 or 6 villages, the position was originally one of some prestige but later would become largely the role of a tax collector. The use of an ethnically based communication system of headmen like *Penghulu* served to keep the Malays separate from other fractions of Malayan society.

[117]/ Note also, these populations came to be seen less in terms of the own origins and more as 'non-Malay' and therefore perhaps more suitable for eventual development (for example, immigrants from South Asia were 'Hindoos' (even if Moslem) and the vast array of Chinese sub-ethnic groups were often lumped together despite the fact that various sections of the population (e.g., the Babas) might have had more in common with fractions of Malay society than with 'fellow Chinese.'

> It is extremely unlikely that, in 1911, more than a tiny fraction of those categorized and sub-categorized would have recognized themselves under such labels. These 'identities,' imagined by the (confusedly) classifying mind of the colonial state, still awaited a reification which imperial administrative penetration would soon make possible.[118]

The impact of colonial 'ethnic mapping' of the people's of the region (including the Malays) and the articulation of difference so crucial to colonial control is critical to the social evolution of the region. For it is eventually this mapping which presents the lines of cleavage for the breaking apart of the region in the early 1960s.

The generalization of Malay ethnicity was important in the formation of group identity, but it was also important in the way it 'positioned' other actors within colonial Malaya. The Malays came to be seen as lazy and it was believed they would, and should be forever bound to their traditional roots (the 'rural' basis of their constructed identity).[119] The Malays were almost by their very definition set off against their 'other' - the Chinese (which would of late be conflated with Singapore).

As independence drew nearer the positioning of the different ethnic groups became all the more strident.[120] As current Malaysian Prime Minister Mahathir Mohammed wrote in his book The Malay Dilemma, the Chinese knew the local language and had all the contacts and,

> the set-up necessary to enable the European traders to milk the Malay sultanates dry. In no time at all, perfect "rapport" was established between the Chinese

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[118]/ Benedict Anderson (1991) Imagined Communities, (revised edition) New York: Verso, page 165.

[119]/ In a typical manner, Sir F. Swettenham wrote, "The real Malay is courageous;...but he is extravagant, fond of borrowing money and slow in repaying it..He is a good imitative learner...(but lazy to a degree)...and considers time of no importance." Sir F. Swettenham (1984) Malay Sketches, Singapore: Graham Brash (originally 1895), pp. 2-3.

[120]/ The animosity between ethnic groups was further enhanced during the war when the Chinese were particularly opposed to Japanese rule and bore the brunt of the Japanese attacks. After the war the Chinese were also the group most strongly linked to communist insurgency.

traders and the conquering merchants of the West.[121]

With the coming of Independence (*Merdeka*), ethnic imbalances and antagonisms came to the fore in the struggle to replace the British.[122] The efforts at union between Malaya and 'Chinese' Singapore need to be seen in this light. In elections in 1963, Singapore's People's Action Party ran nationally (in Malaya as well as Singapore) drawing the ire of Malay nationalists concerned about a 'Chinese takeover.' Ethnic relations within Malaysia were given a spatial expression and representation in the relations between Malaya (soon to be seen as the home of the Malay *Bumiputra* - sons of the soil) and Singapore (a Chinese island in a Malay sea). The two spaces were at logger heads. Again, as Mahathir has written,

> Singapore is an Island in more ways than one. In the Malay archipelago Singapore sticks out like a sore thumb. Singapore's progress and prosperity must depend on, indeed must be at the expense of her neighbours.[123]

The efforts at forging ties between Malaya (which included Johor) and Singapore eventually led to nought as the two countries separated in 1965. Thus, the region was again divided, now into three, by the impact and legacies of imperialism and the positioning of various actors within the skeins of global formation. Yet this separation would not last long.

The lines written by Toh Chin Chye, then Chairman of Singapore's ruling People's Action Party to Malaysia's Tunku Abdul Rahman in which he wrote of the failure of negotiations for union, "Perhaps future generations will succeed where we have failed" seem

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[121]/ Mahathir (1970) op cit, page 35.

[122]/ Economically, the lot of the Malays had descended to a very low ebb. Even by 1970, 50% of Malaysians were below the poverty line of M$ 33 monthly, of these 75% were Malay. Andaya and Andaya (1982) op cit page 284.

[123]/ Mahathir (1970) op cit, page 187.

prescient indeed.[124] Johor and the Riaus are being respun into Singapore's ambit with terrific pace and implications.

C. SUMMING-UP

The historical narratives are useful for a number of reasons. First, they illuminate the multiple spaces of different groups overlapping (and sometimes conflicting) in the region. The functional integration of these social spaces is central to regional development today, but also to the way the region is imagined. An historical outlook illustrates the dynamic and personality of regional production. The personality of regional production is found in the work of the region's coolies and plantation workers as much as the trading families and imperial operatives. Yet at the core of the different and overlapping stories which have combined to shape the region is Singapore. Singapore is the nexus where spaces interweave and overlap.

The historical material also suggests the importance of movement/circulation in regional life. The control and/or management of circulation has long been the key to successful accumulation within the region and the development of its urban hubs. Circulation (global and regional) is still key to understanding today's occasionally frenetic landscapes -- such as those in Johor and the Riaus.

This chapter has outlined the changing positioning of the Growth Triangle's three nodes within the context of a globalizing economic system. The result of this positioning was a fragmentation of the region's historical holism: 1) Johor had become an agricultural producer (since turning to palm oil from rubber) increasingly cut off from its former metropole by Malay nationalism (but with latent ethnic and economic ties); 2) the Riaus had sunk into the periphery of Indonesian development and 3) Singapore, left to its own avails, was forced to turn to its

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[124]/ Cited in Malaysian Business, 1-15/12/90:17.

global connections to seek out a new niche. Within this constellation, levels of integration were declining as fragmentation of the region continued and the 'roles' of each of the three areas appeared set on divergent paths. Yet within the last five years, the region has apparently begun to implode back upon itself as levels of connectivity skyrocketed and each of the three nodes undergoes deep economic structural change. The (re)formation and current patterns of change are the foci of the next three chapters.

PART II

PATTERNS AND TEXTURES OF CHANGE

Part II (Chapters IV, V and VI) considers the textures and pattern of the current phase of regional (re)integration. Here, a tension is evident between the processes of regional and global integration and the differentiation process within economic structures, land use regimes and employment patterns. Each chapter examines each of these arenas in turn to generate comparable portraits of change. It is necessary to present a fairly straightforward outline of the dimensions of change in order to evoke the scale, scope and interdependencies of the processes at hand. A fuller engagement of the sources and textures of change follows in Part III.

CHAPTER IV

TRANSFORMATIONS AT THE MARGINS
JOHOR: INTEGRATION AND FRAGMENTATION

A. INTRODUCTION

Johor has been deeply affected by its role as a producer of cash crops for export. Until recently, it was a largely agricultural economy. Its population of 2.2 million produced about 30% of Malaysia's key export cash crops of rubber and palm oil. It was known for its vast tracks of rolling plantations, often occupying estates of over 1,000 hectares. These estates were counter-balanced by numerous small settlements and smallholdings (of rubber and to a lesser degree palm oil). Incomes were low[1] and activities were largely bound to the land (but included fishing).[2] The state's plantation and agricultural economy had been in place for some 100 years, and on the surface one would have seen little to suggest the tumult that was to come.

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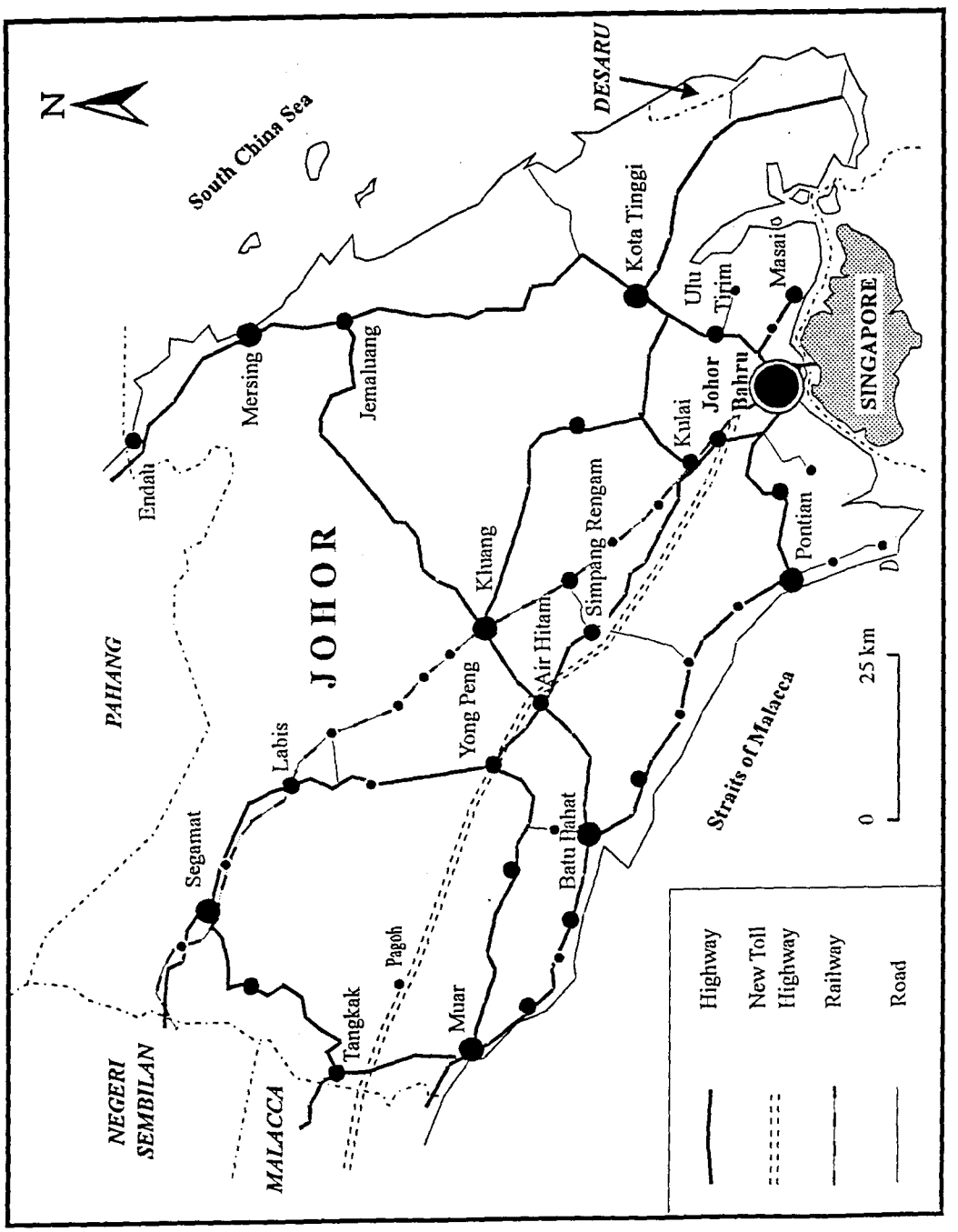
[1]/ Malaysian Institute of Economic Research (MIER) (1989) Johor Economic Plan, Kuala Lumpur, page 43. - Incomes and most other economic indicators were consistently lower than the Malaysian average through 1986.

[2]/ In 1980, rubber production was far and away the number one employment category at about 25% of the total workforce -- almost twice the level found in the entire manufacturing sector. Jabatan Perangkan Malaysia (1984) Banci Penduduk Perumatan Malaysia 1980 Laporan Penduduk Negeri Johor, Kuala Lumpur, Page 554. (Department of Statistics Malaysia, Population and Housing Census of Malaysia 1980, State Population Report, Johor.)

Figure 4.1
Johor State



At the end of the study period (circa 1992) Johor was undergoing important and deep-seeded change. There had been an explosive growth in non-farm employment, a restructuring of the fabric of day-to-day activities and the emergence of traits described above as mega-urbanization (e.g., fragmentation of the employment structure).

The mega-urbanization process does not, however, find its major catalyst within the country-side but from outside the state. As in the past, the tentacles of circulation of information, people, goods and capital, largely articulated through Singapore, are the filiere through which the space of Johor's rural backbone is being simultaneously exploded, (re)formed and (re)integrated within the context of new and inventive regional and global space-economies. The Growth Triangle, centred on Singapore, is an integral reflection and medium of these incursions.

B. (RE)INTEGRATION WITH SINGAPORE

The 1970s and 1980s saw the subdued continuation of Singapore's historic role as regional entrepot through which most of Johor's agricultural exports flowed, and there was also an increasing integration of labour markets. It was also during this time (when Singapore's industrial sector began to face cost difficulties) that large numbers of Johoreans began to work in the factories of Singapore, and the first wave of industrial investments from Singapore into the state began to grow.[3]

1. People

Since the inception of Growth Triangle promotion by regional governments, the volume of interaction between Johor and Singapore has grown rapidly. For example, in 1990, the annual growth rate of population movements across the causeway connecting Singapore and

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[3]/ Informal interviews in Senai, Johor, October, 1992. It is important to note that the deepening of integration with Singapore predated the Growth Triangle -- unlike in the Riaus.

Johor was estimated at 17%/annum.[4] In 1992, some 25,000 Johoreans went into Singapore to work each day.[5] This flow was counter-balanced by an average 33,400 people who daily went from Singapore to Johor (21,000 of these were 'day-trippers')[6] usually in search of consumption activities.[7]

2. Goods

The flows of individuals have been matched by an increasing movement of goods. Trade volumes across the causeway increased by about 20%/annum from 1989 to 1992.[8] By 1992 over 2,000 'cargo laden vehicles' a day moved back and forth across the causeway.[9] The increasing transborder traffic illustrates the extension of the Singaporean space-economy into Malaysia.

The growing level of movement of people and goods across the border has encouraged governments to plan new developments to further enhance transborder flows. These include the planned installation of a second causeway linking Johor and Singapore at a cost of M$ 1.6

4/ Straits Times, 24/8/90.

5/ Interview with Chief Planner, Johor State Economic Development Corporation, November, 1992.

6/ New Straits Times 19/4/92:12; see also Straits Times 14/1/91:20 where Johor Tourism and Environment Committee Chair Jimmy Low claims that 75% of the 13 million Singaporean visitors in 1990 went to restaurants or entertainment spots.

7/ By late 1990, Singaporeans were spending about M$ 500,000/day in JB. See comments of State Tourism and Environment Committee Chair, Datuk Jimmy Low, cited in Straits Times, 29/9/90:17.

8/ Interview with Johor Border officials, August, 1992; see also Johor Operational Master Plan, (page 7-6) which highlights the fact that over 1/2 of the state's international trade is still funnelled through Singapore. Unfortunately, it was not possible to get specific disaggregated data on Johor-Singapore trade. Johor State Economic Planning Unit (1992) Johor Operational Master Plan (Interim Technical Report), Johor Bahru.

9/ Extrapolated from interview data and an article in the Straits Times, 24/8/90:21.

billion (M$ 5.7 billion, including related developments) and a possible extension of the Singapore Mass Rapid Transit system into Johor Bahru (JB).[10]

The flows of people and goods have been matched by an increasing level of cross-border capital movements. Investment flows have contributed to remaking the landscape of Johor and the lives of its people.

3. Money: Investment Flows

In 1992, Johor was one of the hottest investment destinations in one of the world's most dynamic economies. The state was being transformed from an agricultural periphery to Malaysia's southern growth pole by a large influx of capital. Between 1981 and 1991, Johor almost doubled its share of approved annual foreign investments into Malaysia (from 12% to 20%) and by 1992 had surpassed Penang as the second ranked destination for FDI to Malaysia.[11] Between 1987 and 1989 the level of FDI to the state tripled to US$ 1 billion/annum.[12] In the two years between 1989 and 1992, FDI more than doubled to about US$ 2 billion/annum.[13]

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[10]/ See Straits Times 13/7/90, 25/7/90:20 and 14/12/90. The proposal for a transit link has lost its lustre as a number of observers have noted that the present Malaysian State Railway right-of-way from Johor Bahru to Singapore is under-utilized, largely for what appear to be political reasons.

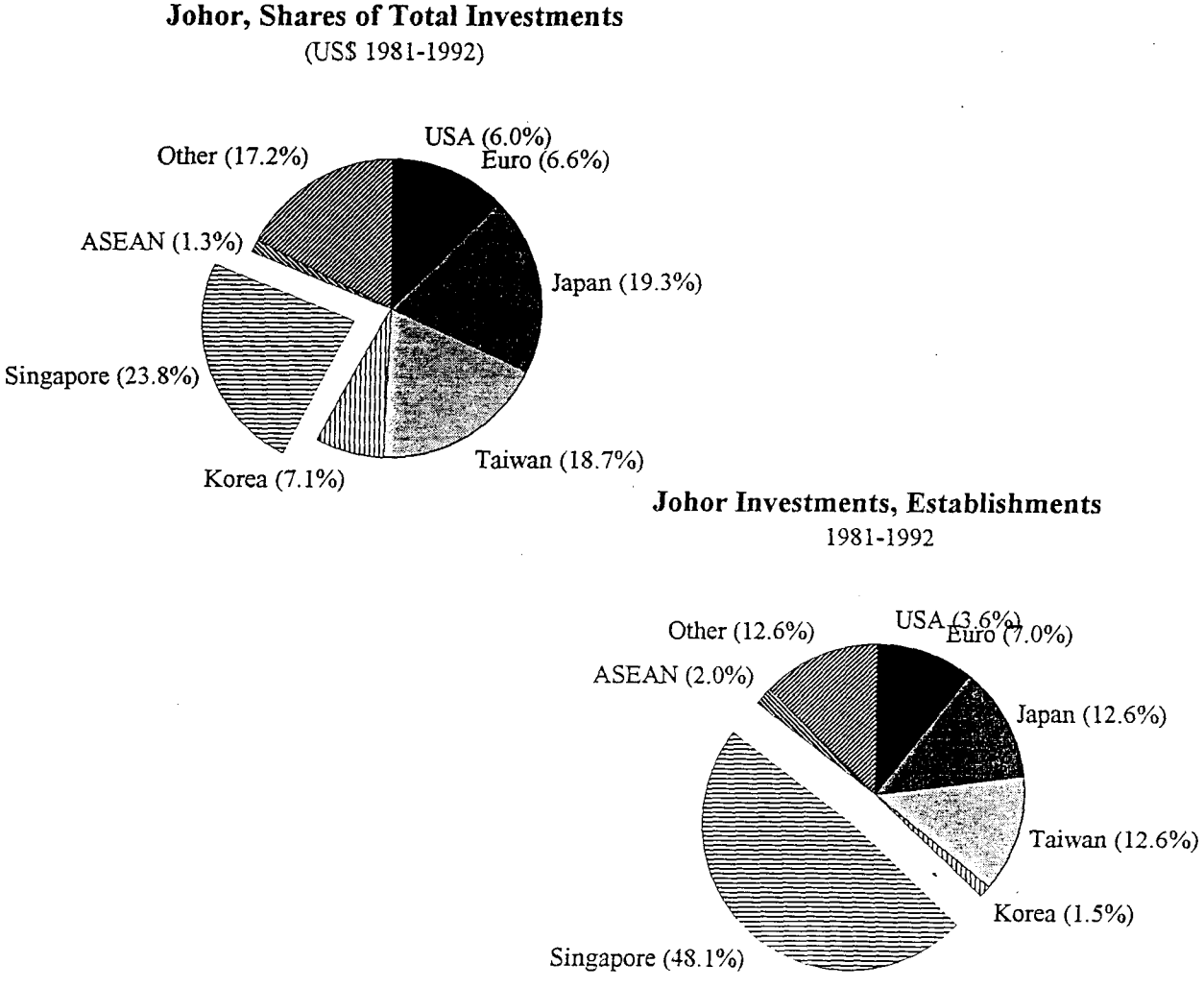
[11]/ Johor State Economic Development Corporation (1992) Johor Investment Guide, 1992, Johor Bahru, page 10.

[12]/ Business Times, 17/11/90.

[13]/ Johor Investment Guide, 1992, op cit, page 10; Business Times, 30/4/92:30; and New Straits Times, 19/4/92:12. From January to August, 1991, 113 projects valued at M$ 2.36 billion were approved, a 56% jump from the same period of the previous year. New Straits Times, 18/12/91:12.

The numbers concerning investment levels are as much a part of the development mania as a reflection of it. The need to be seen as the place 'where the action is' in the global grid of investment opportunities serves to push optimistic projections and calculations of actual investments. This said, in 1990, the state government halted promotions in an effort to digest the investments which had poured in with the initiation of the Growth Triangle concept. - See Far Eastern Economic Review, 26/4/90:52.

Figure 4.2
Investment Breakdown, Sources of Foreign Equity, Approved Projects, Johor 1981-1992



Note: these data are for approved investments, some may not come to fruition.[14]

Source: Malaysian Industrial Development Agency (MIDA) (1992).[15]

[14]/ I have used approved investments rather than realized ones because they make the data more current. I have also assumed that the ratio of approvals to actual projects is relatively even among investing nations and would, therefore, not skew the distribution which is the critical element of this table. Indeed, from recent news about projects, Singapore's position would be even stronger in terms of actual investments carried out (for example, a large South Korean Steel Mill was not built).

[15]/ These data provided by the Malaysian Institute of Economic Research, Kuala Lumpur.

The largest share of foreign investment between 1981 and 1992 (especially in terms of number of establishments) came from Singapore (see Figure 4.2).[16] Investments from Singapore into Johor jumped 182% from 1989 to 1990 after the official proclamation of the Growth Triangle. As well, much of the investment considered as having other origins is funnelled through Singapore.[17] In any event most of the investment is predicated on the state's location near Singapore (with its strong service sector and global connections).[18] The influx of investment is leading to profound changes in the state's economic structure.

C. STRUCTURAL ECONOMIC CHANGES IN GDP

> "Forget Guandong and Thailand, the next NIE will be the Malaysian State of Johor."[19]

1. Industrialization

a) Introduction

Recent data from the Johor State Economic Development Corporation suggests Johor is now Malaysia's second most dynamic industrial region after the Klang Valley (near Kuala Lumpur). Johor's manufacturing output increased 70% between 1988 to 1992. The rate of growth also increased during this period. Johor's manufacturing sector grew at a rate of 13.8%/annum in the 1989-1990 period and 15.5% from 1991 to 1992 (see Table 4.1). This growth is particularly startling when compared to a much slower growth rate in the traditional backbone of the economy, agriculture (at 3.1% and 3.1% - Table 4.1). In 1979, agriculture

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[16]/ Business Times, 21/3/91:8.

[17]/ Interview with Chief Planner, Johor State Economic Development Corporation, November, 1992.

[18]/ Interviews clearly demonstrated this fact. The shortage of detailed data on the specifics of investment flows is also decried in the Johor Operational Master Plan, 1992: 2-12.

[19]/ This quote from the Far Eastern Economic Review, 26/4/90:52 was for some time proudly emblazoned across state promotional materials such as the JSEDC Guide for Investors, 1991.

accounted for 41% of GDP. By 1992, it accounted for just 27.7%. Manufacturing, in 1992, overtook the agricultural sector for economic dominance in the economy (at 30% of the state's GDP, up from 11% in 1980).[20]

Table 4.1
Johor: Gross Domestic Product by Sector
1988, 1990 and 1992, M$ Millions and Per Cent Annual Growth

	1988	1990	1992	Annual 88-90	Growth 91-92
PRIMARY					
Agric, Forest, Fish	2,293	2,452	2,606	3.1	3.1
Mining & Quarrying	64	82	92	10.1	5.5
SECONDARY					
Manufacuring	**1,681**	**2,158**	**2,841**	**13.8**	**15.5**
Construction	200	237	294	9.6	12.0
TERTIARY					
Elect., Gas & Water	94	105	125	6.7	8.6
Transp.& Communication	**489**	**593**	**716**	**10.5**	**9.2**
Wholesale/Retail Trade Restaurant & Hotels	**645**	**756**	**944**	**10.9**	**11.8**
Government Services	729	812	928	6.5	6.9
Other Services	67	78	89	7.7	6.9

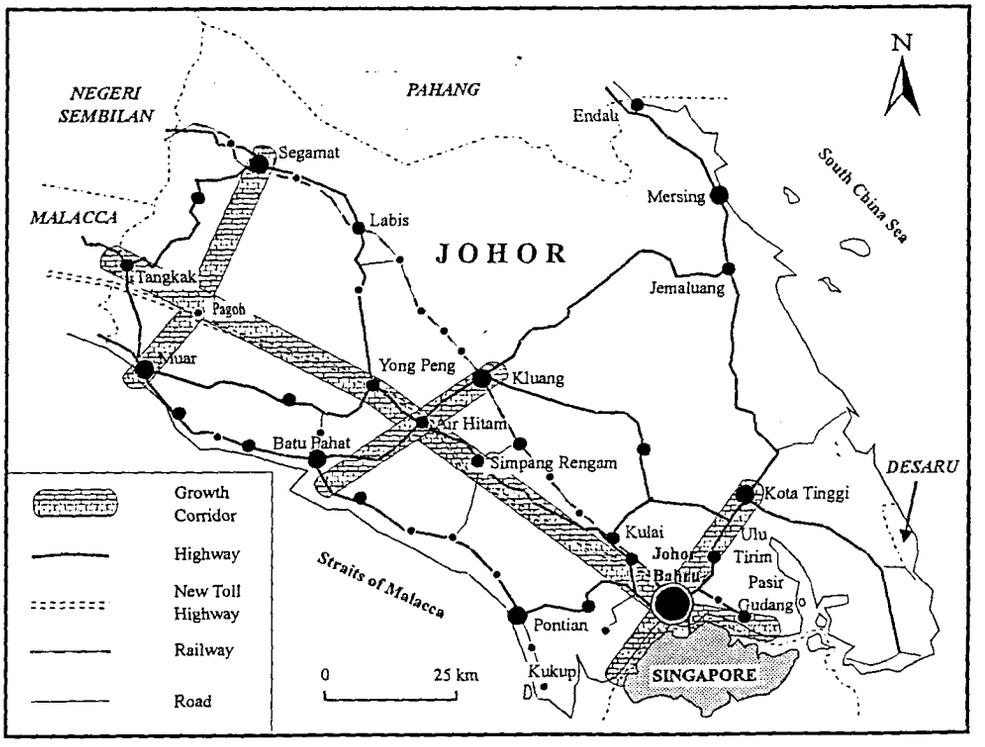
Source: JSEDC Johor Guide for Investors 1991 & 1992, op cit.

Despite distinctions in specific investment patterns in the industrial sector, some broad

[20]/ JSEDC (1992) op cit, page 6. It is important to note that the secular decline in agriculture's share of GDP is also a result of declining commodity prices.

trends emerge. First, the industrialization process to 1992 had few backward linkages within Johor. As of 1991, 42% of the total value of input materials and components were imported in the manufacturing sector. Indeed, 'electronics parts' (largely from Singapore) accounted for 54% of the state's total imports.[21] The reliance on Singapore is indicative of the exogenous roots of the mega-urbanization process to date and of Singapore's centrality.

Figure 4.3
The "Johor Growth Corridor"



Source: JSEDC Guide for Investors, 1991, op cit.

[21]/ Johor Operational Master Plan, op cit, pp. 2-12.

Second, the state has gone through waves of investment emphasizing different industries. The trend in investments has been away from agro-products (e.g., food processing) towards more labour intensive spin-offs from Singapore (e.g., textiles and electronics).[22]

Third, the industrialization process is moving further into the countryside. The bulk of industrial development has been located in a corridor (see Figure 4.3) spreading from Johor Bahru to Muar (i.e., the areas with the highest population and transportation densities as outlined in Chapter III) but dispersion is occurring. Investment has increasingly gone deeper into the countryside along available access routes, bringing new factories, jobs and lifestyles to the countryside.

The location in which the transformation is most complete is the industrial estate of Pasir Gudang, near Masai (see Figure 4.1). Fifteen years ago (one generation), Pasir Gudang was a fishing village supporting 2,000 people.[23] The hinterland of the village was opened up by the federal land agency FELDA,[24] and a number of smallholder villages were established to compliment the growing plantation sector. The population of the entire subdistrict in 1957 was 13,749,[25] in 1992 it had reached approximately 50,000 and is expected to reach 235,000 by

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[22]/ See data presented in Tuan Hj. Johari Ben Mohamed (1991) "The Role of JSECD in the Industrial Development of Johor," Seminar on Growth Prospects in Johor, Singapore Institute of Planners, 22 August 1991.

[23]/ Straits Times, 24/8/92:2.

[24]/ FELDA stands for Federal Land Development Authority which is intended to facilitate settlement of 'small-holders' into new agricultural communities growing rubber (increasingly palm oil), fruit and food crops. FELDA created the communities (often in 'virgin' forest) and financed early crops. See the summary in George Cho (1990) The Malaysian Economy: Spatial Perspectives, New York: Routledge, pages 95-110; Alladin Hashim (1979) 'Land Development under FELDA: Some Socio-economic Aspects," in A.R. Mukhzani (ed.) Rural Development in Southeast Asia, New Delhi, Vikas Publishing, pp. 63-79; Ozay Mehmet (1982) "Evaluating Alternative Land Schemes in Malaysia: FELDA & FELCRA," Contemporary Southeast Asia 3, pp. 340-360 or A.F. Robertson (1975) "A New Kind of Malaysian? A Sociological View of the F.L.D.A.," Journal of Administration Overseas, (14), pp. 30-38; or any one of the Malaysian Plans.

[25]/ Federation of Malaya, Department of Statistics (1960) Population Census 1957, Report No.6, State of Johore, page 5.

2000 as the massive industrial estate is completed.[26] By 1991, the Pasir Gudang Industrial Estate cum township employed some 15,000 people (with 33 more plants under construction)[27] and had become the industrial core of the state's development.

The port at Pasir Gudang, 'Johor Port,' is Malaysia's fastest growing. Growth in throughput from 1988 to 1992 was 20% per year.[28] The growth in port activities was even more remarkable in terms of container movements. Container throughput increased 47% from 1990 to 1991 (66,000 TEU to 96,000 TEU)[29] and is expected to reach 500,000 units in 1999 when the port will reach its saturation level and a new port at Gelang Patah comes on line.[30]

These are the types of figures pumped out by the Johor State Economic Development Corporation. They are part of the blizzard of 'optimistic' prognostications which characterize the Triangle. However, they fail to capture the impacts and textures of changes on the ground.

In 1973, Kampong Putih, a village beside the industrial estate at Pasir Gudang was almost entirely rooted in agriculture and fishing. By 1987 (slightly before the most explosive period of restructuring) the percentage of workers employed in fishing or agriculture plummeted

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[26]/ JSEDC (1992) Johor Investment Guide, 1992, op cit, page 14. It is also of note that *Mukim Plentong* in which Pasir Gudang is located is now the 5th most populous *Mukim* (district) in Malaysia. (Mal) Business Times, 2/07/92:03.

[27]/ JSEDC (1991) Johor Investment Digest, March/April, page 7.

[28]/ Johor Investment Guide 1992, op cit, page 13.

[29]/ See comments by Port Chair, Datuk Suleiman Mohamed Noor in New Straits Times, 22/01/92:7 on the importance of container movements and the port's explosive growth.

[30]/ Straits Times, 26/11/92:17; and (Mal) Business Times, 22/07/92:1.

to 14.7%. By that time, 60% of the population was classified as industrial, unskilled and/or casual labour.[31]

2. Services

Services, especially, in the recreational and tourist sectors have also taken off in the state. Service industries such as transport, communications, hotels, restaurants and business were all growing at rates of over 10% per year between 1988 and 1992 (see Table 4.1). The growth was most notable in personal services, especially in tourism.

Tourism growth may be found in two areas. First, the state is attracting more international visitors (i.e., not Malaysian or Singaporean), most of whom come via Singapore.[32] Second, (and most importantly) the late 1980s and early 1990s saw an explosion (growth of about 25% a year) in the numbers of short term tourist visits by Singaporeans.[33]

Visits by Singaporeans to Johor increased to 980,000 per month by 1992 (equivalent to more than twice the population of the state capital of Johor Bahru). In the process, Singaporeans increased their spending in the state from almost M$1 billion annually in 1990 to M$3.8 billion in 1992.[34] In Johor Bahru (or 'JB'), most hotels had 1992 occupancy levels

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[31]/ P. Guiness (1992) On the Margins of Capitalism: People and Development in Mukim Plentong, Johor, Malaysia, Singapore: Oxford University Press, page 128.

[32]/ Figures for January and February 1990 indicated a 282% increase in Japanese tourism and a 217% increase in Taiwanese tourism. Reported by Malaysian Culture and Tourism Minister, cited in Straits Times, 31/3/90:25.

[33]/ This has levelled off with increasing tensions between Singapore and Johor/Malaysia.

[34]/ 1990 data are from Asian Wall Street Journal, 7/12/90:6 and Straits Times, 20/6/90; Straits Times 14/4/91:39, 1992 data from New Straits Times, 19/4/92:12.

at or near 100%.[35] Investment commitments in 1991 were set to double hotel space by 1995 (to 7,449).[36]

The increasing number of Singaporeans visiting Johor Bahru in 1992 was not completely new. Singaporeans have long gone to JB in search of cheaper goods such as petrol (cheaper products also include alcohol, prostitution, consumer goods and recreational opportunities).[37] They are also often going in search of certain freedoms and attractions which have been expunged from the landscapes of the city-state.[38]

Jalan Wong Ah Fook, which cuts through the heart of JB, is something of an alter-ego for contemporary Singapore. In the garish nightlights of the street one finds open sexual merchandising of various types, snake charmers and a certain magic which has left Singapore. As one Singaporean writer has described a JB nightspot,

> It is a little like being caught in a time warp. Opulent and loud, this *kelab malam* (nightclub), like so many of the others in JB recalls the Singapore cabarets of the 50s and early 60s.[39]

The active *pasar malam* (night market) at the end of the street is a focal point of JB's gritty side. Yet the market's (and JB's) *cache* is changing. The town is something of a 'spatial other' for Singapore, but the wealth which that role can apparently generate is drawing high levels of

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[35]/ Straits Times, 7/4/90:45.

[36]/ Straits Times, 14/4/91:5.

[37]/ However, ultimately the Singaporean government forbade cars from leaving Singapore with less than 3/4 of a tank of gas (which is checked at the border). The rationale was that petrol from Johor was too 'dirty' and polluting.

[38]/ See MB Muhyiddin's comments on the image of JB as "sin city" and a "vice den." - Straits Times 2/2/91:21.

[39]/ Sharon Lim (1990) "JB's Pleasure Dome," Straits Times. 2/3/90:5.

investment and reworking the landscape. The market at Jalan Wong Ah Fook may soon be replaced with a Shangri La Hotel and shopping complex.[40]

The service boom is not confined to the Johor Bahru area. The countryside of Johor, and the Growth Triangle more generally, are being partially reconstituted as a recreation and pleasure periphery for Singapore.[41] In its inaugural membership drive in July 1990, Palm Resort (a golf course/recreation complex) admitted 2,700 members at M$ 48,000 each (over 80% of the members are from outside the state).[42] In 1992, it launched a second membership drive for 500 more members at M$ 88,000 each -- making it one of the most expensive golf resorts in Malaysia.[43] To meet tourist demand, the state has seen plans and realizations of a 'Safari Land,' 'Water World,' and a proposed artificial winter wonderland.[44]

The personal and recreational services boom has come to once remote locales such as Kukup, a tiny fishing village about one and half hours from Johor Bahru (see Figure 4.1) along a perilous road which is flooded with Singaporean seafood eaters every weekend. Each Sunday some 1000 cars and 40 buses make their way from Singapore to Kukup.[45] Kukup is home to

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[40]/ Straits Times 27/9/90:21.

[41]/ This aspect is not completely new, Johor and Batam have for some time been get-aways, but not on the current scale. The influx of Singaporean capital and visitors has drawn the ire of many of Johor's residents as it is causing localized inflation and perceived social decay. This point came out strongly in numerous interviews and casual conversations over a cup of *Kopi* by the roadside. See also New Straits Times, 19/4/92:12; The Nation, 18/1/91:5; or Straits Times 13/22/90; Business Times 12-13/1/91:6.

[42]/ There were 5,000 applications for the first 1,000 memberships. - Business Times, 18/7/90.

[43]/ New Straits Times, 12/07/92:2. The entire Growth Triangle region is predicted to have one of the highest densities of golf courses in the world within 10 years. Straits Times, 4/6/92:4. These golf courses are designed for Singaporeans and Japanese (usually holding about 5% of memberships for 'locals'). Membership fees are 1/10 to 1/2 of those in Singapore. About 70% of golf course membership investments are speculative in nature. (Ibid)

[44]/ The winter wonderland was part of the ill-fated Desaru resort Business Times, 25/4/91:1. The state has also been host to at least two delegations from people who alleged they were representatives of Disney Corp., but no official word. Singapore Report on the Growth Triangle, 9/4/92:3-4.

[45]/ Data from Transport Minister Datuk Seri Dr. Ling Liong Sik as cited in Straits Times, 6/8/93:22.

seven major seafood restaurants capable of seating over 200 people each (mid-week, however, they are empty). A new M$ 1.8 million pier is just being completed. It is hoped it will attract tourists to the planned 38 [sic] hole international standard Kukup Golf Resort. In 1992, the town had but 63 hotel rooms to cater to the impending onslaught.[46]

About 10 kilometres from Kukup, but with no access road, is Serkat, located in Tanjung Piai (see Figure 4.1). This area once flourished as the domain of an important lineage of pirates who were given special rights by Sultan Abu Bakar in the 19th century. The British extinguished these rights and the area consequently sank into decline. The Tanjung Piai area was also protected by a curse (made by its former pirate lord), and as such in 1991 presented untouched mangrove swamps to attract tourists and naturalists,

> Still awaiting an access road, the locals have established two seafood restaurants on stilts that jut out into the sea. The waters here can easily be converted into a venue for water sports because of the calm sea and good breeze. The scene can be very fascinating during the night when millions of fireflies cluster in the shrubs and trees growing abundantly in the swampy areas. You can also see the glittering lights of Jurong town in Singapore from the restaurants.[47]

Eventually, the Tanjung Piai area and adjacent Gelang Patah will be a new core of regional development when a second crossing to Singapore comes along with its new 10,000 hectare townsite and international port developments (discussed below).

The area of Tanjung Belungkor is situated in the remote southeast area of the state. In 1971, the entire area had but two rough access roads and was virtually isolated and untouched by development. The small town of Bandar Penawar is now projected to become 'Johor's

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[46]/ New Straits Times, 14/02/92:2 and field survey, November, 1992.

[47]/ Mohammed Shahar Yaacob, New Straits Times, 8/11/91:2.

Orlando,"[48] with an integrated tourist complex aimed at serving some 1.5 million tourists a year (and capturing some of Singapore's throughput via direct access by ferry to Changi Airport in Singapore).[49]

Developments in the service sector in Kukup, Tanjung Piai or Tanjung Belungkor may seem fanciful but: 1) many developments, such as Palm Resort, are coming to fruition; 2) they are re-constructing the geographies of the region; and 3) they represent the unbounded sense of opportunity which has accompanied the Growth Triangle concept. The golf courses and seafood restaurants illustrate the profound spatial re-positioning presently occurring in the state, especially in regards to the demand for personal services reaching out from (and through) Singapore. The growth of the service and industrial sectors are mirrored by deep changes in the status of agricultural activities.

3. Agriculture

The agricultural sector, so long the core of the economy, is hurting under the stress of the explosive growth and change (although still growing by 3 per cent/annum). The decline of the centrality of the agricultural sector (as illustrated by Table 4.1) must be seen in the context of hard pressed plantation owners who face low world prices for their products and have had to pay Malaysians higher and higher wages to harvest the crops (due to competition from other employers and the escalating costs of living. Moreover, plantation concerns are subject to

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[48]/ This comparison was drawn by the state's enthusiastic M.B., Muhyiddin. Cited in Straits Times, 18/4/90:18; and see also Straits Times, 25/2/91:14..

[49]/ Straits Times, 22/2/91:21. Note that the Tanjung Belungkor transit connection will also provide access to a proposed M$ 500 million project at Tanjung Balau being jointly developed by a Johor government agency and DBS Land, Hour Glass and Natsteel. Ibid. The south east region is also slated for a M$ 240 million industrial estate - Singapore Report on the Growth Triangle, 27/2/92:4.

corporate takeover attempts by large scale international and national land developers. They have transferred certain operations to new production sites to profit from rising land values.[50]

In particular, the labour shortage in agriculture is reaching critical proportions. In 1992, plantation wages were much lower than those in industry or services, and the work is less prestigious. The result is a growing labour shortage in agriculture. Even by 1988, a Plantation Association survey suggested that 642,543 person days of labour had been foregone in the plantations due to labour shortages and that 84% of palm oil producers reported a labour shortage problem.[51] By 1992, the situation was aggravated still further due to a government crackdown on illegal immigrants from Indonesia working on plantations.[52] The stress in the labour market needs to be seen in the context of huge increases in the asset value of plantation firms, especially in terms of the their land holdings (see Chapter IX).

A particularly striking example of this kind of nexus is the redevelopment of Chee Tat Plantation (a long established rubber and palm oil plantation). In 1991, Singapore banking concern DBS, through its DBS Land division and in conjunction with Malaysia's Pernas Holdings and New Brilliance, bought into Chee Tat Plantations which was running large operating deficits. At the time, it was stated that "Chee Tat's main asset is the piece of freehold plantation land..." 24 kilometres from Johor Bahru.[53] This land was redeveloped into a M$ 800 million recreational, residential and industrial project (Palm Resort, as mentioned above).[54] In

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[50]/ There is an intriguing Singapore link in the relocation process. Singaporean firms present Malaysian plantation companies with excellent connections to new sites such as those in Vietnam. - Business Times, 30/4/92.

[51]/ Amounting to an estimated loss of M$ 28 million in output. - Johor Operational Master Plan 1992:2-28.

[52]/ See New Straits Times, 15/07/92:6.

[53]/ Business Times, 7/5/91:3.

[54]/ Business Times, 7/5/90.

another example of the push to turn to land development, plantation concern Duff Berhad's property development division contributed M$ 43.21 million to the group's 1992 turnover of M$ 46.01 million while the plantation division contributed only M$ 2.79 million.[55]

The tremendous changes in the economy of Johor need to be seen in more than structural terms. The shift into industry and services is having profound implications at ground level. Structural change must be seen in the way that it comes to affect the lives of the people of the state through the interlinked aspects of landscape shifts and employment possibilities.

D. EMPLOYMENT SHIFTS

Table 4.2
Johor: Employment Structure Changes, 1970-2000

	1970	1980	1985	1990	1995	2000
Primary	60.4	45.1	39.3	35.6	30.2	24
Secondary	10.5	19.5	25.5	28.6	36	41
Tertiary	29.1	35.3	35.4	35.8	34.4	34

Note: Shares may not equal 100% due to rounding.
1990, 1995, 2000 are projections, 1990 Census data still unavailable, March 1995.

Sources: - Ridzuan Bin Akil (1989) "Supply and Demand for Workers in Johor," Mimeo, Perunding Bersatu Sdn. Bhd., page 5; Malaysian Institute of Economic Research (MIER) (1989) Johor Economic Plan, 1990-2005: Final Report, Kuala Lumpur: MIER, page 37.

Table 4.2 illustrates the changes in the employment structure of Johor. Of particular note is the shift out of agriculture which emerged between 1970 to 1990 (and beyond). In just over one generation the share of workers engaged in agriculture dropped by two thirds, while

[55]/ (Mal) Business Times, 11/02/92:16. This trend is found throughout Peninsular Malaysia. For example, Sime Darby, the diversified conglomerate which is an offshoot of one of the biggest plantation agency houses of the colonial era, is increasingly moving out of plantations. In the first 6 months of 1991, its profits from plantations plumetted 53% while the income from property development increased 102.8% (M$ 36 million from property and M$ 17.4 million from the plantations). - Business Times, 4/3/91:1. The transformation of plantation lands will be revisited in Chapter IX.

the share of workers in industry more than tripled.

Employment changes are especially striking when one moves to consider nuances of ethnicity, age and gender. The changes in the employment patterns are coming to most distinctly transform the lives of rural Malays.[56] As Chapter III suggested, Chinese Malaysians tended to be concentrated in town sites while Malays were more dispersed across the countryside (with a consequently distinct set of employment patterns). Malays were and are frequently found in traditional *Kampongs*[57] or FELDA schemes and engaged in agriculture (the divisions in employment spaces are discussed further in Chapter VIII).

Currently, the Malay labour pool is deeply affected by the mega-urbanization process and changing employment patterns. Changes in rural employment patterns, in turn, cut to the very heart of Malay identity and society. One FELDA village may serve to illustrate the local consequences of the employment changes illustrated generally by Table 4.2. Cahaya Bahru is a small town that was developed by FELDA in the 1960s when about 400 Malay settlers came to open up the eastern portion of the Mukim Plentong region as a rubber frontier (see Figure 4.1). Patrick Guiness has provided some excellent data on the village's transformation.[58]

Cahaya Bahru was by any definition a small agricultural village of the rural periphery. However, as the population aged and came into contact with new opportunities, the children did not take up the work of their elders and opted for newly available non-farm employment. If one examines the types of jobs done by the time the people of Cahaya Bahru entered the labour force, a startling trend emerges. In the 1960s, 89% of the population entering the labour force

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[56]/ An important ingredient in Malay employment patterns is the 'New Economic Policy' (NEP) introduced in 1970. It will be considered in Chapter VIII.

[57]/ *Kampong* is the term used for the traditional Malay village.

[58]/ The section is derived from P. Guiness (1992) op cit.

were classified as agricultural, 8% engaged in manufacturing and 3% in services. In the late 1980s, these numbers had reversed so that only 3% were classified as agricultural while 6% moved into services and 85% went into manufacturing.

The speed of this transition has led to fundamental shifts in the life experiences of children and their parents. Of those in the 50-59 age bracket, 81% work on their own farms and 0% in industry. Of those in the 20-29 age cohort, 5% worked on their own farms, 35% worked in factories and 50% were left unemployed.

Despite the demands for labour (indeed chronic labour shortages haunt the state) unemployment is a key problem in the town and throughout the state as wages in the industrial estates are still very low and agricultural work may seem unpalatable. The tragic illustration of the irony of the speed of the development process in the state is that the massive infusion of capital I have outlined above has left the state with a critical 'structural labour shortage' and the presence of an estimated 75,000 people (mostly males) who were unemployed in 1992.[59]

The turnover is also very high in the industrial estates[60] and many young males (especially) are finding an uneasy new space in drug usage and social disintegration, caught in the nether world of proto-proletarianization and marginalization.[61] They do not, or will not, work on the land or in the factories. The labour shortfall in low paying plantation jobs is being taken up by an estimated 50,000 illegal aliens (mostly from Indonesia).[62]

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[59]/ Business Times, 9/1/90:18; see also Guiness (1992) op cit, page 153.

[60]/ Interviews with employers based in Singapore June-Dec., 1992 and at Kampong Putih, December, 1992.

[61]/ Interviews in Kampong Putih, December 1992 and Senai, October, 1992; and Guiness (1992) op cit, pages 144 and 153.

[62]/ This figure varies widely (up to 100,000), I am using data in the 1992 Johor Operational Master Plan. The bulk of the immigrant labour works on plantations (98%) and is concentrated in the Johor Bahru district (56%) where industrial labour shortages are also the most critical. - New Straits Times 18/6/92:4. In Johor, the 'landings' of foreigners are focused in Batu Pahat. - New Straits Times 23/4/91:13.

The lack of a 'suitable' semi-skilled, industrial workforce is hindering growth[63] and forcing employers further and further into the country-side[64] in search of young 'school leaving' workers, preferably females.[65] In this way the industrial estates and factories leap- frog their way out from Johor Bahru and push further and further into the hinterland.

As I will discuss further in Chapter VIII, the differentiated experience of changes in the state's employment structure runs along ethnic, generational and gender lines (each group comes to terms with the 'new spaces' of the region in a different way). Although the situation was never one of homogeneity of experience, the scope of change has deeply unsettled 'the order of things.' The patterns of 'rural' life in Johor are being confounded and convulsed as the 'village circle'[66] is broken as 'the city' comes to the village.[67] Thus, as the rural economy comes to be repositioned and drawn deeper into an encompassing global space economy, it is also

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[63]/ Asian Wall Street Journal, 6/12/90:6. See also an article on the state's strategy to push labour intense industries further inland. - Straits Times, 22/6/91:23. This point was also confirmed in an interview with JSEDC officials, November, 1992.

[64]/ Two factors are at the root of the push into more remote areas. The first concerns the congestion in the town of Johor Bahru. Employers have complained of workers simply refusing to put up with the extensive traffic jams that now characterize the core area. See article on JBs traffic in Straits Times, 18/12/90: 15. The second factor is gender based. Employers are much more sanguine about finding young female *Bumiputra* labour than hiring male plantation workers. Industrial estates opening in the interior tend to emphasize the access to female *Bumiputra* in their marketing to investors. - see Straits Times, 9/1/90.

[65]/ In the electronics sector of Mukim Plentong, the female to male ratio is in the order of 100 to 14. Guiness (1992) op cit, page 52.

The concentration of female employment is highest in textiles and electronics. Ridzuan bin Akil (1989) "Supply and Demand for Workers in Johor," Seminar on Investment Opportunities in Johor, Kuala Lumpur, July 24, 1989, page 4. Women also tend to be employed as unskilled or 'general workers' rather than as 'managers or professionals.' Only 15% of 'managers or professionals' are female. Ibid, page 6.

[66]/ For a discussion of this process in a different Malay rural context see R. DeKoninck (1992a) The Village Circle, Singapore: ISEAS.

[67]/ H. Brookfield, Abdul Samad Hadi and Zaharah Mahmud (1991) The City in the Village, Singapore: Oxford University Press discusses the mega-urbanization process in the Klang Valley outside of Kuala Lumpur - although the mega-urban model is not referred to.

fragmenting and differentiating (in this case, through the labour process). The dynamic of region-based urbanization reaches its most overt manifestation in terms of land use.

E. LANDSCAPES OF CHANGE

1. Introduction to Johor's Land Market

The land market in Johor is dynamic. The volume of land transactions in Johor (not including corporate take-overs) increased from M$ 2.95 billion in 1990 to M$ 3.5 billion in 1991. In the same period average price increases were in the 40% range and some properties increased over 100% in value year on year.[68]

These figures are difficult to track as many transactions are not at 'arms length.' There is a huge amount of speculative investment (or proposed investments). Speculation is usually carried out by well-connected Malaysian investors who design grand development plans, gain rezoning and then sell the land for windfall profits.[69]

Land use is increasingly determined by exchange value rather than productive value or use value (discussed in Chapter IX).[70] Exchange values are in turn highly unstable and subject to control of a limited number of investors and perturbations from Singapore.

The plantations are literally peeling back from the roadways as the land undergoes redevelopment into industrial or residential estates. One wonders, when driving through the now barren plantation lands with their occasional sprawling luxury condominium complexes and

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[68]/ Singapore Report on the Growth Triangle, 23/4/92:18; Straits Times, 11/4/91:39; See also Rahim and Co. Research (1993) The Johor Bahru Property Market: A Forecast of Trends and Directions, 1993-2008. Kuala Lumpur: Rahim and Co.

[69]/ This theme came out very strongly during interviews with state officials. The government has recently tried to limit speculation by considering development approvals as void if the project is not substantially underway in two years. A 1992 study identified 60 abandoned projects accounting for 19,237 unbuilt houses. See Straits Times, 19/8/90:13.

[70]/ For example, land use is often based on 'potential' development windfalls rather than agricultural capacity.

more frequent sign boards promising the same -- who will live here? It is unlikely to be the bulk of Johor's population who marvel at the prices and the proliferation of projects. These projects are aimed at the potential Singapore market. (It is believed that approximately 6% of the land in and around Johor Bahru is owned by foreigners.[71])

A focal point for speculative investments has been the region around Galang Patah (see Figure 4.1). This region is the site of the development of a second causeway linking Singapore and Johor.[72] Gelang Patah is today surprisingly bucolic, composed of Chinese cemeteries, rubber groves and forests. The scene is a counterpoint to the onslaught to come as the population is projected to increase by 200,000 people over the next few years.[73] When I visited the area in 1992, it was characterized by an empty expanse of former (rubber) plantation lands transected by a wide boulevard awaiting the town's arrival. In the distance, a small Chinese shrine once embedded in the plantation sat upon a tuft of dirt.

In 1990, before the second causeway was officially announced, 30% of the land in Gelang Patah changed hands over an eight month period.[74] Land prices increased in value from M$ 4,000 per hectare in 1970 to M$ 250,000 per hectare in mid 1990.[75] However, the land

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[71]/ The Star, 13/2/92; see also Johor Operational Master Plan, 5-5. The government has since passed laws limiting foreign ownership.

[72]/ The tender process and the make up of the winning consortium for this key project are telling. The contract was originally given to United Engineers Malaysia (UEM) without tender. UEM has extremely close links with the federal wing of the ruling UMNO party. After contestation from the Johor government, a new arrangement has been struck. UEM retains 51% control, and the remaining 49% is to be split between the Johor government and Malay-Chinese businessman Robert Kuok. For a view from the other side, see the struggle of Madam Robiah Hassan to stop the project. - Straits Times 14/3/91:18.

[73]/ Far Eastern Economic Review, 26/4/90:52.

[74]/ Straits Times, 12/9/90:23 citing Datuk Mohammed who is an MP for the area. This assertion was denied by MB Muhyiddin (Straits Times 28/9/90:25) although land prices were placed under control of the state in late September of 1990. Straits Times, 18/9/90:17.

[75]/ Straits Times, 14/9/90:21; or Far Eastern Economic Review, 8/11/90:61.

appreciation is only partially being felt by locals as the state has 'gazetted' some of their land at values far below market levels[76] and speculators have moved in on other lands.

There is a great deal of controversy over the redevelopment of the area's land base, especially as to how small holders will be affected. Local politician, Mr. Wong Peng Sheng (DAP-Jementah) has suggested that while the government has offered to pay land-holders M$17,000 per hectare or 15 sen per sq ft, several property companies and Singaporeans were offering M$10 per sq ft.[77] A resident of the area, Mr. Encik Dali Ibrahim from Kampung Ladang, complained that the authorities had been vague about resettlement plans. He said a State Assemblyman from Johor Bahru had told them in April that the villagers might have to look for alternative sites by themselves. "We are worried over our future and the welfare of our families," he said, adding that their prospect of re-settling was worrying. He claimed that the M$17,000 per hectare compensation that had been promised was also grossly insufficient. "It is not even enough to buy a low-cost house which would cost $22,000."[78]

About 480 hectare of land will be directly involved in the second link project but another 10,000 ha are needed for a new township to be constructed in the area.[79] Current plans are for a M$ 600 million new town to be built at the northern terminus of the new causeway.[80]

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[76]/ Business Times 1/2/91:12.

[77]/ New Straits Times, 19/12/91:18. Though these figures are likely exaggerations, they do illustrate the sense of unfairness which pervades the process of development at such pace.

[78]/ New Straits Times, 23/11/91:9. Concerns have also been expressed by the Chinese business community of Johor Bahru who are fearful of losing their spatial monopoly on Singaporean business. See Singapore Report on the Growth Triangle, 19/4/92:5.

[79]/ New Straits Times, 30/03/92: 14.

[80]/ Straits Times, 19/12/92:23.

The area will include a mix of industrial estates and "leisure farms for Singapore's gentlemen farmers."[81] Changing land valuations are not only coming to affect plantation lands.

There is a bias towards spaces closer to Singapore and an especially intense boom in property prices in Johor Bahru just across the causeway from Singapore. Prices of retail space in the Holiday Plaza shopping centre in the city increased 100% in the two months from November to December, 1990[82] (again, shortly after the initiation of the Growth Triangle concept). In the new Plaza Pelangi and Plaza Kotoraya developments, initial demand (applications) outstripped available space by ten and four to one respectively.[83]

The investment and development binge has led to a construction boom.[84] The construction sector grew to M$ 294 million in 1992, a growth of 12% over 1991 levels. The construction boom has in turn given many areas of the state an eerie sense of a 'world in process.' All main roads are flanked by construction projects (begun or dreamed of), and the sites are peopled by some of the several thousands of illegal Indonesian immigrants who have come to the state to work. Land developers, at whom I will look more closely at in Chapter IX, are producing a new look for the state. This look is mixed.

2. Differentiation

Despite the building boom the state has a serious housing problem. Due to inflated

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[81]/ Far Eastern Economic Review, 26/4/90:53. The area has also been suggested as a Free Trade Zone. - Business Times, 6/9/90:1.

[82]/ Straits Times, 25/1/91:22. The longer term growth has also been startling. From 1986 to 1992, rentals increased from M$ 5 to M$ 20-25 psf and selling prices jumped from M$ 75 to M$ 375 psf. - (Singapore) Property Review, June/July 1992, page 20.

[83]/ Business Times, 15/4/92; see also Straits Times, 20/1/90:48 for a discussion of the retail space frenzy after the announcement of the Growth Triangle concept.

[84]/ An indicator of the speed of growth may be found in the shortfall of 45,000 tonnes of cement in the state each month. - Straits Times, 15/1/90:2.

housing prices[85] and the predominance of high-end developments, workers are forced to live in congested housing. The presence of a burgeoning proletariat in need of housing and the ability to crowd them into housing paid for by their employers has pushed housing prices out of the reach of families trying to make a go of it in the newly industrializing areas of the state.[86] It is estimated that one quarter of the population in Johor Bahru district lacks adequate housing or running water.[87]

The landscape is also being reformed along new income lines. As Guiness has noted,

> But where in the Malay kampong or the Chinese New Village the houses of poor and rich were interspersed, differentiated by the length of lease, type of building materials and furnishings used, and spaciousness of building, the new style of residential area was segregated into income categories. By segregating housing categories, these estates polarized the emerging classes of the industrial society.[88]

Large squatter settlements have sprung up around once rural villages. Each settlement accretion is made up of a different sector of the population (usually graded by ethnicity and time of migration to the area).[89] These squats provide stark contrasts to the proliferation of new mega-projects in their midst.

The theme of land use differentiation in Johor is schematically illustrated in Figure 4.4. The once predominant large blocks of former plantation lands are being replaced with numerous estates, golf courses and multi-use complexes. These developments are in turn are infilled with numerous small holders attempting to achieve some form of economic rent from their suddenly

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[85]/ For example, rental rates for two-storey terraced Houses in Taman Pelangi more than doubled from 1989 to 1993. - Rahim and Co. (1993) op cit, page 146.

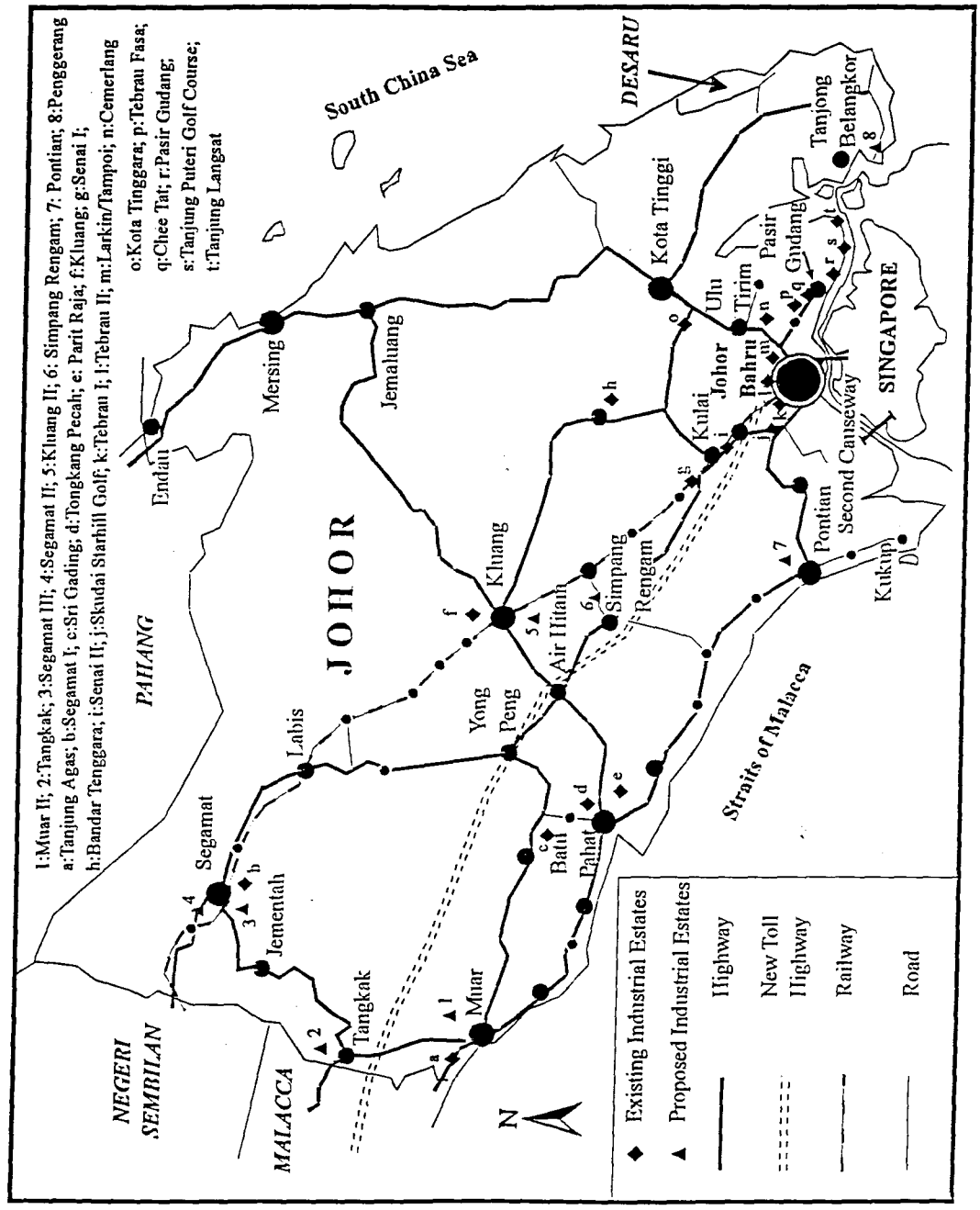
[86]/ Interview with JSEDC Planner, October, 1992 and with families in Cemerang, September, 1992.

[87]/ This assertion was made by Opposition Leader G.S. Najar - Business Times, 12-13/1/91:6.

[88]/ Guiness (1992) op cit; page 185. Guiness goes on to note that the separation and growing role of the automobile has led to a disappearance of contact between groups/classes (page 196).

[89]/ Interviews in Tanjung Putih, September, 1992; and see Guiness (1989) op cit, page 126 and 141.

Figure 4.4
Johor, Selected Projects, 1992



Sources: Field Survey, 1992

expensive homesteads.[90] Figure 4.4 only gives a sense of the scope of change. As one gets closer to the ground, the differentiation is even more marked. Planners in Johor have admitted that the master plan is in shambles as developers push plans through political channels to achieve windfall profits from widespread spot zoning.[91]

The residential building boom is but one facet of an overall lattice work of land use regimes which often collide in conspicuous ways. In the once-rural areas of Johor, the homogeneity of the plantation landscape is being replaced by a cacophony of new uses. The new landscapes range from luxury golf retreats to shop house textile mills to 'new towns' to squatter huts. Land (or, rather, space) has become a prime commodity in the state and as such it is undergoing rapid creative destruction as the space-economy transforms.

Amongst all of this tumult, one needs to note that it is shifts within Singapore and its global niche which are spurring on investment and the resultant structural shift in the economy and the re-construction of space in the state. The re-ordering is a reflection of an eclectic re-ordering of landscapes and spatialities which is accompanying region-based urbanization (transforming both the core and the periphery).

F. SUMMING-UP

The lands and people of Johor have long been engaged in a global economy. For many years, they were selling various agro-products. Now, they are being re-positioned and, in a sense, are closer to the core of global commerce. They are being explicitly and forcefully drawn into the winds of change. Once such re-positioning occurs, the need to keep up momentum and the deep shifts it engenders means that it is difficult to successfully get out of

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[90]/ In particular, Guiness has emphasized the construction of informal housing by *Kampong* residents (especially the elite) for rent to the newly arriving work force. Guiness (1989) op cit, page 124.

[91]/ Interview with JSEDC planner, October, 1992.

the global market system once you are in it. (A drop in momentum could mean a collapse of a bubble economy based on optimism.)

The only policy option seems to be to push deeper into the storm. The state's goal, as expressed by its chief, Mentri Besar Tan Sri Muhyaddin, is to "go global" in the next decade.[92] What this will specifically mean for the peoples and landscapes of the state is still far from clear.[93]

The Johor case is 'unique' in its specific outlines and contingencies, but the core elements of mega-urban transformation are there.[94] The key themes of the Johor case study include: 1) the importance of new and deeper integration with Singapore and beyond; and 2) differentiation of land uses and employment patterns (both within Johor and in contrast to Singapore). In Johor, new relationships between land, labour and capital are being spun. The situation in the Riaus is similar but different.

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[92]/ Straits Times, 24/6/90:2.

[93]/ An anecdotal example captures something of the momentum of change and its local consequences. In 1992, the state was considering changing its day off from the Islamic Friday to Sunday. MB Muhyaddin has said: "I am personally keen to have Sunday as the weekend. If we want to go global in our economic plans, we have to adapt to international practices." cited in Straits Times, 12/11/92:17.

[94]/ The reader may note that I have not gauged changing 'urbanization' levels in the state. This was done for theoretical reasons (avoiding the category -- 'urban') and practical concerns. The term urban in Malaysia (as in so many other spaces) is subject to multiple meanings and statistical bias. See P.J. Rimmer and G. Cho (1981) "Urbanization of the Malays Since Independence: Evidence from West Malaysia, 1957 and 1970," Journal of Southeast Asian Studies, (12), pp. 349-363, pages 350-351.

CHAPTER V

TRANSFORMATIONS AT THE MARGINS
THE RIAUS: INTEGRATION AND FRAGMENTATION

A. INTRODUCTION

The Indonesian corner of the Growth Triangle is centred on the island of Batam (only 20 kilometres from Singapore), but it also encompasses the nearby Islands of the Riau Archipelago, especially Bintan and Bulan (see Figure 5.1). The Riau Archipelago is composed of some 3,214 islands. Most of these are very sparsely inhabited and many are not even named.[1] These islands have, since the colonial period, been on the periphery of Indonesian development.

Continuing on from Chapter III, the historical geography of the Riaus can be glimpsed in the contours of a small island off the coast of Bintan -- Penyengat. This tiny island of about 2500 metres by 750 metres was once home to some 9,000 people and was a cultural capital of the Malay world.[2] When I visited it in 1992, Penyanget was an eerie place, with jungle covered

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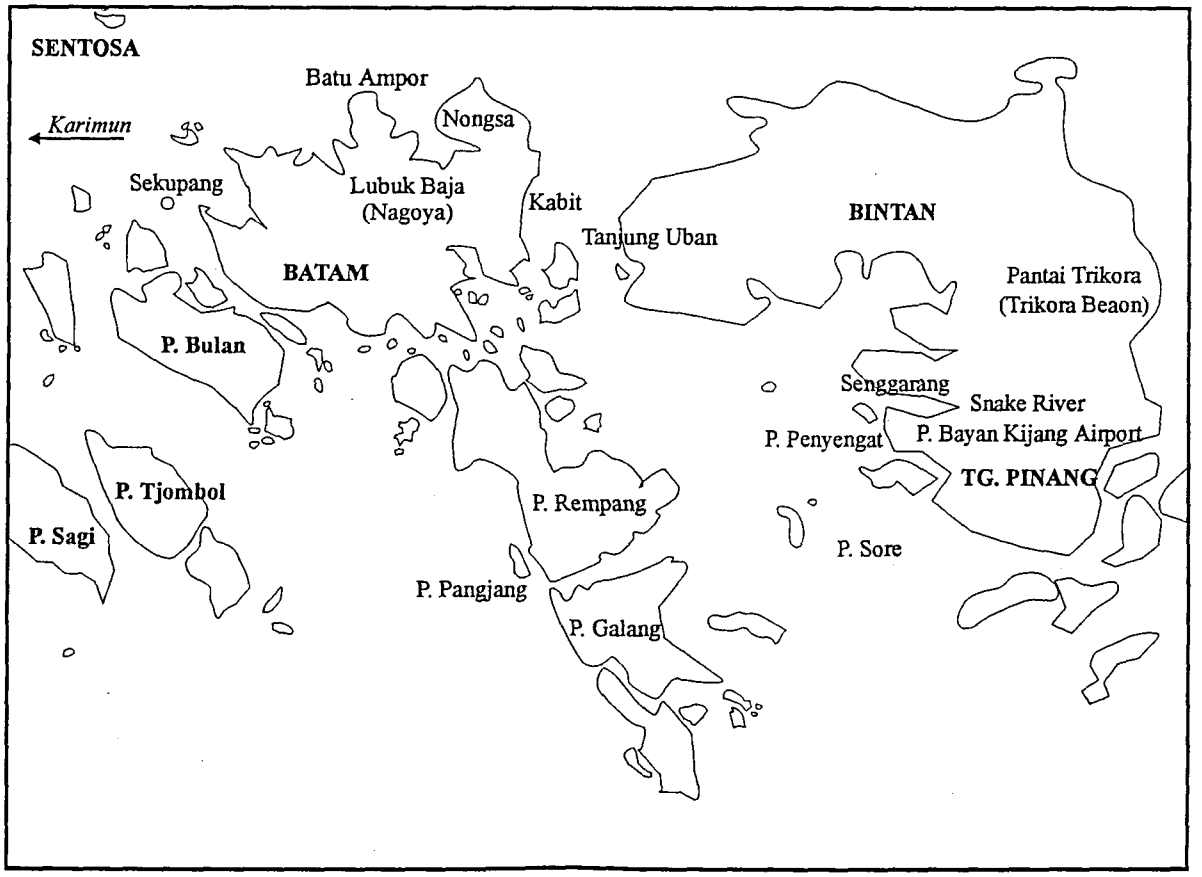
[1]/ This according to both gazetteers and local informants.

[2]/ The island's rulers were famed for their support of the arts, their Islamic piety and learning. For a discussion of the current role of Penyaget in the construction of 'Malayness,' see V. Wee (1986) "Material Dependence and Symbolic Independence: Constructions of Malay Ethnicity in Island Riau, Indonesia," Working Paper #75, Department of Sociology, National University of Singapore.

buildings and ruins. The once regal officer's club was a local watering hole for bathing, the Sultan's palace was a sometimes tourist project, and the royal grave site on the island's only hill a favourite kite flying locale. However, the pathways through the island's villages were showing evidence of being increasingly trodden. They are being reworked by the increasing numbers of tourists whose arrival is part of an emerging regional boom.

Figure 5.1
The Riau Archipelago



B. REGIONAL INTEGRATION

Between 1988 and 1992, was drawn into the swirling eddies of global and regional circulation. The throughput of goods, capital, people and information grew at rapid rates as indicated by Table 5.1, below.

Table 5.1
Increases in Circulation, Batam, 1988-1992

	1988	1992*	Av. Annual Change
Tourists	227,000	658,000	72%
Cargo Loadings (tonnes)	752,000	2,346,000	78%
Ship Calls	9,066	58,484	161%
Tourist Revenue (,000 US $)	30,050	190,200	156%
Industrial Exports (Million US$)	44	564	320%

Note: 1992 Estimates based on projections from June 1992

Source: Derived from Batam Industrial Development Authority (1992) Berelang Development Data, June 1992., Export data from B.G. Habibie cited in Straits Times, 1/11/93:36; and; Straits Times, 11/6/93:48 (1993 exports projected to 1 billion US$ at that time).

As outlined in more detail below, Singapore is a main source and conduit for many of these flows.[3] Indicators of the growing linkages between Singapore and Batam include:

1) the rapidly growing speed boat shuttle services to the Riaus from Singapore (leaving almost every 30 minutes, for a 30 minute ride).

[3]/ This is not to deny the Indonesian government's efforts at bypassing Singapore. Batam's Hang Nadim airport is intended to take Garuda's stop-overs instead of Singapore and will have direct international flights (the first will be to Tokyo) (Mal) Business Times 28/4/92:1. Asia-Port is also planned to pick up some of Singapore's business (see Chapter XI).

2) the development of Batam Island's International phone system which is routed through Singapore and not Jakarta.[4]

3) the development of electronic 'smart cards' to allow Singaporean managers quicker transit time through customs in Batam.[5]

The changes which have underpinned the remarkable re-positioning of the island seem quite apparent in hind-sight, and they mainly relate to Singapore. The first development was the intriguing role of the 'Amazing Zoo' pirate radio station based on Batam in luring Singaporean tourists (and some investors among them) to the island in search of cheap booze and fun.[6] However, Batam quickly became more than a leisure frontier for Singapore's adventurous.

C. INVESTMENT LEVELS

Batam's share of total FDI to Indonesia grew from a minute 0.43% in 1980 to 4.19% in the decade to 1990 and then jumped to 10% in 1991.[7] As of June 1992, total investment in Batam (from annual levels in the S$ tens of millions in the 1980s) reached a cumulative total of almost S$ 4.5 billion (slightly under a third of this is from government sources) or an annual level of about S$ 700 million.[8] In terms of the 1980 population of the island, this is a per

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[4]/ This is the first joint venture in telecommunications services in Indonesia. Interestingly, the first two calls were to Singapore and Tokyo. See Business Times, 25/4/91:30.

[5]/ Straits Times, 2/10/91.

[6]/ Far Eastern Economic Review, 12/1/89:28.

[7]/ Data for 1990 from Mari Pangetsu (1991) "Growth Triangles -- As A Model for ASEAN Cooperation: An Indonesian Perspective," Paper prepared for ASEAN Roundtable: ASEAN Economic Co-operation in the 1990s, Singapore, Institute of Southeast Asian Studies, 28/6/91, citing BIDA data. 1991 Data from Indonesian Investment Board cited in James Parsonage (1992) "Southeast Asia's Growth Triangle - An Extended Metropolitan Region?" Paper presented to 'Conference on Managing Mega-Urban Regions in ASEAN Countries," AIT, Bangkok, Nov. 30-Dec 03, 1992.

[8]/ Berelang Development Data, op cit, 6/92:34.

capita cumulative investment level of US$ 75,000 (over 200 times per capita income - levels equivalent to over US$ 11 trillion in FDI flooding into British Columbia in about 5 years).

Batam is currently awash in a stream of capital investment on a scale which dwarfs the 'local' economy. The source of these flows is largely Singapore (see Figure 5.2). Even transnational investments are largely predicated on the island's proximity to Singapore. Batam is seen as a 'platform' linked to Singapore[9]. This point was strongly made during interviews with managers of American, Japanese and European firms.[10]

Batam is, even more than Johor, a creature of Singaporean impulses and needs. Singaporeans are far and away the dominant investors on the island. By June 1992, Singaporeans accounted for almost 50% of all industrial companies investing in the island. Singapore's investment impacts are usefully divided into industrial and recreational pursuits.

At present a slim majority of realized investment into Batam is in the residential and tourist sectors,[11] both focused on Singapore. The number of tourists entering Batam (78% from Singapore in 1992[12]) grew from 69,000 in 1985 to over 620,000 in 1992 (a growth of 800% in seven years).[13] By 1992, the influx of tourists had allowed Batam to surpass Bali as the

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[9]/ In my survey procedure, which involved trying to contact about 50 firms with operations in Batam, I only came across two which were not headquartered in Singapore.

A possible exception to the ubiquitous role of Singapore on the island is proposed Kuang Hwa Industrial zone located between the proposed Asia-Port and the Airport. The project includes heavy involvement of the Taipei government through the auspices of the Taiwan Development and Trust Corporation which is in a joint venture to develop the park itself and is providing loan financing for investors in the park. The park is having troubles getting off the ground but seems now to be underway. If built, the investment will total US$2 billion itself. - Straits Times, 20/3/92:26; Straits Times, 30/3/92:26.

[10]/ And is noted in a survey of firms found in the Singapore Report on the Growth Triangle, 18/6/92:2.

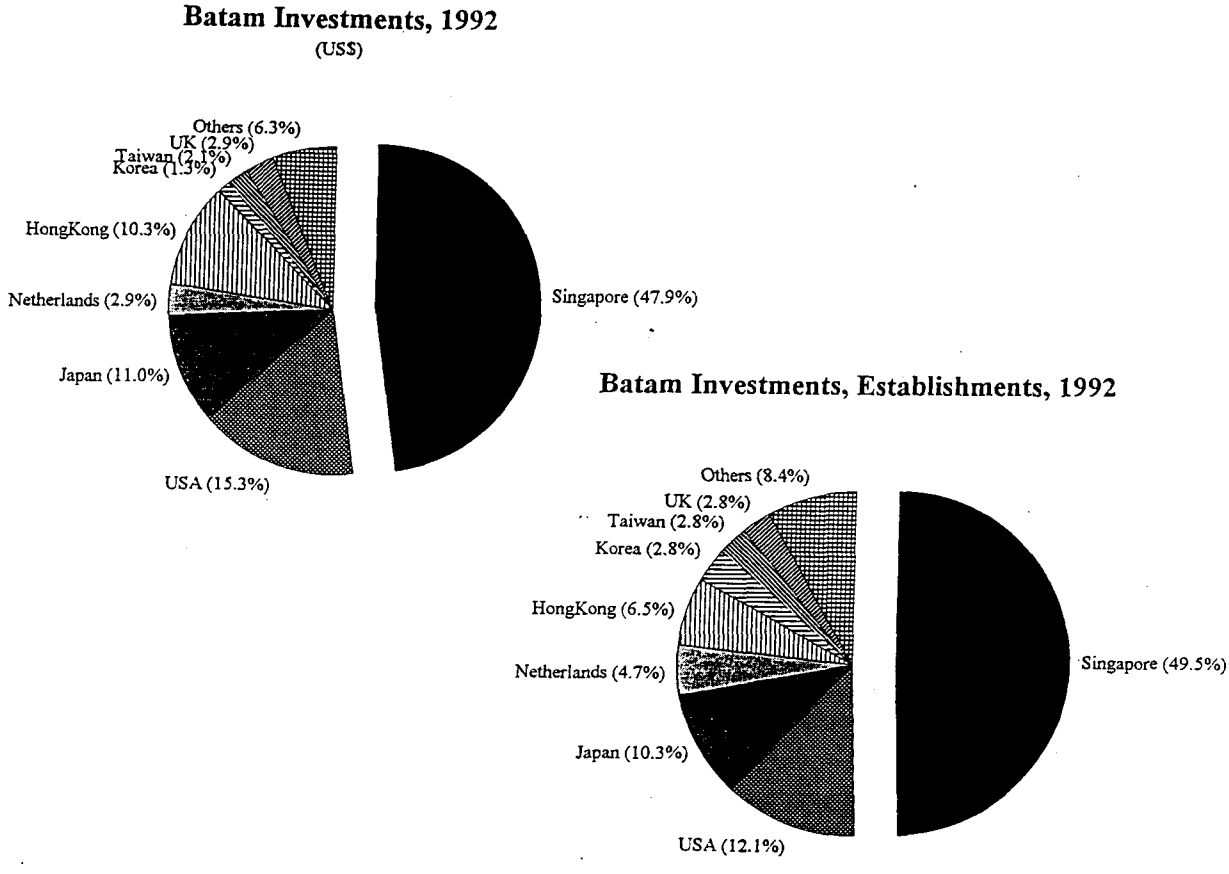
[11]/ (Mal) Business Times, 23/07/92:18.

[12]/ Johor Operational Master Plan, 1992:6-6. Malaysians are second at 9.6%.

[13]/ Berelang Development Data, June 1992, op cit.

number two tourist entry point in Indonesia (after Jakarta) reaching 36% of total visits to Indonesia (from 8% in 1985).[14]

Figure 5.2
Private Sector Foreign Industrial Investments in Batam Island, by Source
As of June 1992



Source: Berelang Development Data, June 1992, op cit, pages 36-37.

[14]/ Business Times, 29/8/90.

The tourists are on Batam for a good time, not a long time.[15] In 1990, the average length of stay was 1.3 days (i.e., one night) and daily expenditures averaged US$ 104.2.[16] Stays lengthened to 2.1 days in 1992 and daily expenditures increased to US$ 265.39/day.[17] The lengthening stays illustrate the strengthening ties which are spanning the Straits, interweaving the two economies.

Tourists are attracted to the island's resorts, and an increasing number of get-away homes and the many golf courses are proliferating on the island. There is also a tendency to mix pleasure with business. Businessmen from Singapore are known to have set up second wives on the island along with their businesses, and the links between the golf club memberships and other leisure activities and the island's industrial growth are close and intriguing. The mix of business and pleasure is found in the island's economic restructuring as well.

D. GDP CHANGES

The scale of change in Batam is so profound and the original economic base was so small that it is not useful to quote data on structural change.[18] As the cash economy (especially outside the government) in the 1970s was so small, new investments almost directly relate to the new economic structure. As noted above, the investment structure has been characterized by two divergent tracks: industrial and recreational development. The combination of these

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[15]/ As reported in Singapore's Sunday Times: " Mention Batam to the Singaporean Traveller and images of curvaceous women, cheap seafood, duty free liquor and more curvaceous women come to mind." - Sunday Times, 9/8/92:7. References to 'sleazy Singaporeans' (an oxymoron?) were common elements of discussions with local residents.

[16]/ Batam Industrial Development Authority (1991) Introduction to Batam Island, page 18.

[17]/ Business Times, 23/1/92:1.

[18]/ In any case, no regional GDP data desegregated to the level of Batam could be found.

activities on the island is leading to important conflicts. However, the rapid growth of each has subsumed tensions for the time being.

E. POPULATION AND EMPLOYMENT SHIFTS

The rate of change suggested by the investment data is confirmed and magnified when the occupations of the island's rapidly growing work force are examined. Batam Industrial Development Agency (BIDA) data suggest a growth in the labour force of 42% from 1990 to 1991.[19] This figure reflects the growing share of labour commuting from nearby islands as the growth in the labour force is substantially above that of the growth of the island's official population (13% in the 1990 to 1991 period).[20] This said, over the last five years, there has been an tremendous increase in the numbers of people calling Batam home.

The island's population has grown from 6,000 (mostly fisherfolk) in the early 1970s to over 120,000 registered residents in 1992 (this, in turn, is double the population of 1988). It is estimated that the population will reach 700,000 by 2005.[21]

Batam is a frontier for Singaporean and transnational capital and Indonesian labour. It is a meeting place in the new spaces of contemporary global capitalism. The influx of investments and migrants (*orang dari luar* -- people from outside) is transforming the island

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[19]/ Derived from data provided in Pangetsu (1991) op cit.

[20]/ See also the comments of Tunku Norshud in Far Eastern Economic Review 2/7/92:14.

[21]/ Nomura Research, "Investment Climate: The Growth Triangle: Development of Batam Island," Nomura Research Asia Focus, No. 2, April 1991, page 3. This is the most commonly given figure. It is based on the water capacity of the island.

from a home to a frontier of change.[22] Indeed, many of the original fisherfolk have been removed to 'resettlement camps' because "they can not be civilized."[23]

Batam is a unique place in that one rarely meets anyone who is actually from the island. Batam contains a broad spectrum of all of Indonesia come together in a new space. One meets people from Sulawesi, Sumatra and 'the core:' Java.[24] Riau Province is now the number one destination for migration from West Java.[25] The island is being viewed by Indonesians of all sorts as an opportune location for work and good wages at the frontier. One report stated that

> [Young women in} Pontianak [West Kalimantan] queue up for hours just for application forms! Besides good salaries and a chance to see the world, there are other incentives for choosing Batam. Good workers have a chance of being selected for training in Singapore or overseas.[26]

As one local said "Batam is like ants to a sugar bowl."[27]

Labour has come to the island because, plainly put, it is where the money is.[28] Although wage rates are still crushingly low at US$ 5 per day for production work, this is two to three times what a production worker might earn on the outskirts of Jakarta.[29]

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[22]/ This theme came out very strongly in 1992 interviews with the few original inhabitants I came across (about 20 in 8 months).

[23]/ Interview with BIDA officials, August, 1992.

[24]/ Though it was evident from my time in the field that the majority of 'freelance' workers (i.e. who had not come on pre-set contracts) were from Sumatra, especially Aceh. See also data in A. Partadireaja and C. Yeoh (1991) "Migrant Workers in a Corner of the Growth Triangle," Faculty of Business Administration, NUS, mimeo.

[25]/ Indonesian Times, cited in Singapore Report on the Growth Triangle, 11/11/92:2.

[26]/ New Straits Times, 6/5/92:25.

[27]/ And goes on to say, "...everyone comes to eat, but not all of them are good." - Far Eastern Economic Review, 2/7/92: 14.

[28]/ Discussions with workers at the Batam-Indo estate emphasized the lack of amenities and diversions and the feeling of being at the frontier.

[29]/ BIDA (1990) Batam Island: Indonesia's Gateway to Asia, Guide for Investors. See also Muhammad Amid (1990) "Electronics is Perfect for Batam and Batam is Perfect for Exports," in Richard Mann (ed.) Batam: Step by Step Guide for Investors, Toronto: Gateway Books, page 15.

The island is increasingly characterized by a fragmented labour market. The biggest employer on the island is the Batam-Indo Industrial Estate (see Figure 5.2). This estate filled up with tenants in two months, far ahead of schedule with such well known companies as Philips, Smith Corona, Thomson and Sumitomo.[30] When completed, the Batam-Indo project will house some 50,000 young women selected from all over Indonesia who will work under on Batam for two and a half year contracts. At that time, the gender imbalance on the island should shift from its present predominance of men (largely in construction and residual heavy industries linked to oil) to women (assembly and services).

The key emergent distinctions are the new biases based on gender. Assembly production centres (and spaces), such as Batam-Indo, are predominantly staffed by young women.[31] These women are increasingly housed on-site. One is immediately struck by the visible evidence of the feminization of the work force when one visits the Batam-Indo estate. The males to be seen are driving the taxis circling the estate, working in maintenance or construction or are loitering in the estate's food centre.[32] In some regards, especially in terms of housing, the young females of Batam-Indo are the labour aristocracy of the island. Their 'space' is at the leading edge of the island's (and in some ways the nation's) economy (ironically in its once-jungle core).

There is a marked concentration (in official data) of males in the heavy-industrial areas of the east coast of Batam (57% of the total) and on the west coast (60%) where residential

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[30]/ Business Times, 25/6/90:1.

[31]/ The figures given by BIDA (1992) suggest that 60% of the industrial labour force is female. Two points need to be made in this regard: 1) this underestimates the amount of 'new' employment which is involving women (as older oil related jobs are male dominated); and 2) this figure will change as more of Batam-Indo's assembly plants come on line. - Berelang Development Data, June 1992, op cit, page 11.

[32]/ Precise data on the gendered nature of employment in the estate is, at the present time, not possible to come by. However, my experiences in the estate and the discussions I have held with industrial tenants of the estate and patrons at the food centre and elsewhere on-site support these assertions.

construction is most frenzied. Such figures severely underestimate the true picture because of the large numbers of un-enumerated male construction workers. The construction workers (mostly men) tend to live in shacks on building sites.[33]

Gender, labour and space are highly interwoven in the newly forming economic landscape of Batam. The 'integration' of the island has yielded differentiated sets of employment possibilities for its growing population. At present the island is also marked by distinctive (if ironically intermixed) housing regimes. The mix of squatter settlements, luxury condominiums and worker dormitories is striking.

F. LANDSCAPES OF CHANGE

Batam is about two-thirds the size of Singapore (although on tourist brochures it is often presented as being much larger). It is serviced by an excellent road system (but no public transit) that weaves through the various developments, the very old plantation lands and the dispersed squatter settlements. The road system is part of the original master plan for the island. The mapping of the space of the island is not apparent from the ground, but this belies the island's intended nature.

Batam is supposed to be a very controlled space. Control is to be developed along two lines. First, the Indonesian government plays a ubiquitous role in the development of the island. This role has involved the evacuation of the rights of original citizens in deference to the needs of investors. In a situation with strong parallels to Johor (and the role of JSEDC), the entire island, from the labour force selection (selected from all over Indonesia by firms subcontracted by BIDA) to the land itself (by Presidential Decree), is organized or controlled by BIDA, the Indonesian development corporation headed by the powerful Prof. Dr. Habibie. This is a key

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[33]/ Officially, only 6.3% of construction workers are female. Berelang Development Data, June 1992, op cit, page 10.

to Batam. It is meant to be a controlled environment designed to optimize returns on investments. Second, key investments are being made by surprisingly few individuals and firms (discussed in detail in Chapter X).

Investors have gone into Batam because of the rent gap between Batam -- a Third World island and Singapore -- a world city, only 20 kilometres away. In the process, they have constructed a new landscape from a virtual tabula rasa (i.e., extensive globalization). Batam is attractive because it can yield the high margins found in frontier booms, but is very close to the main circuits of global commerce, and is strongly supported by the governments of Indonesia and Singapore.

Despite the comments above about the 'control' aspect of Batam, an intriguing aspect of the formation of the spaciality of the island is the manner in which so much of it is not going according to plan. The focal point of the island's development is supposed to be Batam Centre (see Figure 5.3, below). In 1992, the centre, which was built in a scenic bay overlooking the Straits, was home to two lonely government buildings. Nearby, two retail complexes for tourists were undergoing construction. However, the area appeared to lack the dynamism which characterizes the island's unofficial capital: Nagoya (or Lubok Baja -- see Figure 5.3).

Nagoya, or Chinatown as it is sometimes called, does not appear on the official plan but is booming. In 1991, when I first visited the town it was impossible to find a meal (outside of the two main hotels), and commerce consisted of a wet market in the town centre. One year later, there were supermarkets, electronics stores and a dynamic informal sector. Nagoya is almost unrecognizable from its origins. It is the heartland of the small businesses which are flocking to the island and into the larger <u>apparent</u> boom generated by the large scale investors

(including the Singaporean and Indonesian governments). These small businesses are the foot soldiers in the push to develop the island (i.e., the crucial role of local agents in driving extensive globalization).[34]

Nagoya tends to be shunned by the larger developers on the island. For example, in 1992, the Batam-Indo estate in the centre of the island does not provide transportation for its workers to Nagoya. The workers can be seen strung out along the road walking the several kilometres to Nagoya. Displeased with the lethargy of Batam Centre and the mayhem of Nagoya, Batam-Indo has recently decided to construct its own new town centre near the industrial estate to "avoid the troubles which Nagoya may represent."[35]

This new town centre, in the heart of the island (Figure 5.3), will meet the needs of the estate's growing population and is part of a larger plan to evacuate the several thousand squatters who have settled in the jungles and old plantation lands around the estate.[36] In Batam-Indo's new town development one sees the creation of a new 'urban landscape' deep in the heart of Batam's former 'rural' heartland.

Batam is meant to be a place where the spatial expression of competitive global capitalism can generate its own landscapes: to date this landscape is notable for its overt inequalities and tumultuous surface (again, a reverse image of Singapore). Despite the evident underlying objective of control of the space economy, the only descriptor which fully captures the island today is 'disarray.' On Batam, the landscape of change is a heterogeneous one. The

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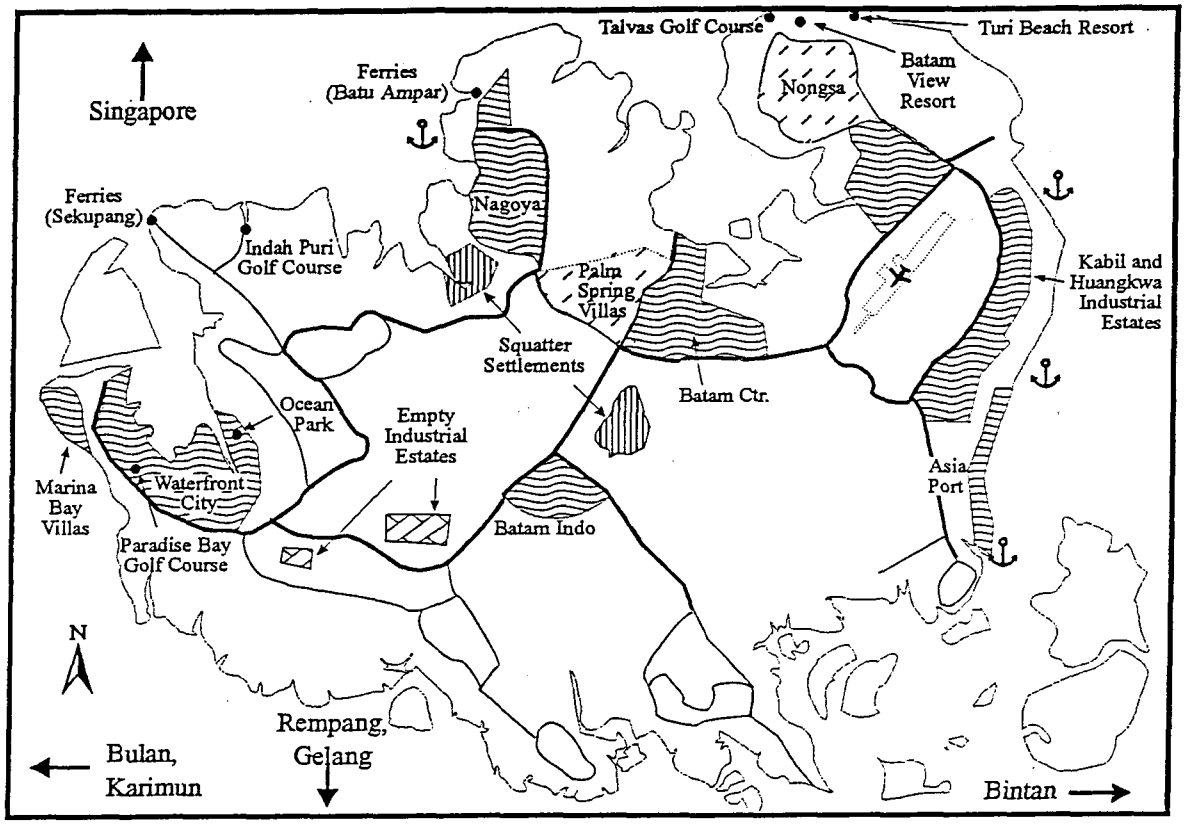
[34]/ While it is the large investors who capture the limelight with the grand plans -- it is, I believe, the smaller entrepreneurs on whom they rely who are the bedrock of development. They are, after all, the ones who rent the space and increase transactional densities.

[35]/ Interview at Batam-Indo Industrial Estate, August, 1992.

[36]/ The squatters are often male friends of female workers at Batam-Indo. The clearing of the area has recently begun. Residents are being shifted to the southwest area of the island. Though plans for housing them are as yet not fully in place. Interview with BIDA Planners, September, 1992.

heterogeneity is found in terms of both the juxtaposition of developments and also within individual developments.

Figure 5.3
Developments and Squatter Settlements, Batam 1992



Source: Field Survey, 1992

1. Differentiation

Batam island in 1992, was characterized by an eclectic mix of industrial and recreational/residential land-use regimes. For example, the Grandview Hotel (at US$65/night) is composed of cottages patterned after a wide range of traditional house types from all over

Indonesia. These get-away cottages look over the McDermott oil platform assembly yards. On a larger scale, the petroleum mega-project planned for Asia-Port is just around the corner from the Nongsa resort complexes (see Figure 5.3).

In terms of housing, the contrasts are equally stark. In 1992, there was both a generalized housing shortage (at low income levels) which is inflating rents (forcing many people with whom I spoke to take two jobs[37]) and a glut of upper income condominiums.[38] The housing shortage (especially for males, who are less likely to have factory-sponsored housing) is linked to the growth of squatter settlements which dot the island (see Figure 5.3).

Nestled nearby the squatter shacks are multi-million dollar developments of spectacular scope and imagination. For example, C.K. Lim's S$ 1 billion, 1700 hectare Waterfront City project is set to take ten years to complete.[39] It will include 16,000 condominiums, a number of marinas, theme parks, an industrial estate for some 600 Small or Medium Sized Enterprises (SMEs) and prawn farms. It will indeed be a place that is all things to all people. It will be,

> a heady mix of Florida style resort living, Bali beach casual chic, Queensland Gold Coast excitement ancient Japanese charm and Indonesian cultural heritage.[40]

Over 50% of the lots in phase one of this Singaporean development were sold before they were even officially offered.[41] The rest went within days of the offering. These were

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[37]/ The need for two jobs seemed to be most prevalent among service workers and those who had come to Batam without prior employment and living arrangements.

[38]/ These condominiums are usually targeted at Singaporeans wishing to purchase a private home but are also built by estates to house managers and provide services. For example, Batam-Indo is building an 'executive village.' Interview, September 1992; and Straits Times, 9/6/92:40.

[39]/ Business Times, 25/9/89:1. Developer T.K. Lim has increased the estimated cost of Waterfront City to S$ 2 billion. - Singapore Report on the Growth Triangle, 7/2/92:3.

[40]/ Business Times, 23-24/6/90. These condominiums were 'snapped-up' in 'fairs' in Singapore, Hong Kong and Taiwan. - Straits Times, 21/9/89.

[41]/ Straits Times, 21/9/89.

almost exclusively sold to land-hungry Singaporeans.[42] Waterfront City is but one of eight to ten such mega-projects planned to transform the island into 'another Singapore.'

By 1992, every inch of the Batam was designated for some purpose. The island was 'sold out' and land prices were rising sharply. Land price averages increased from S$ 1.30/sq. ft in 1988 to S$ 5.00/sq. ft. in early 1991.[43] Indeed, as the island itself became saturated with development schemes, plans have been made to build bridges to the three nearby islands of Rempang, Ganang and Galang (just to the south of Batam) to increase the land area of development, forming a new free trade area of some 611 square kilometres called the Berelang Sector.[44] The development of the Growth Triangle is actually creating new investment spaces (through the widening of the bonded zone).

H. THE PUSH FURTHER INTO THE RIAUS

The streams of investment and change are no longer solely confined to Batam island. Much like in Johor, the sinews of investment are winding further and further into remoter areas.

1. Bintan

Bintan island (about 30 minutes from Batam) is the traditional population core (133,000) and largest island in the chain (see Figure 5.1). It has an ethnically mixed population and has three main urban centres. The island has come fully into the orbit of Singapore at a later date than Batam, but is now served by direct speed boats to the Republic, and Singapore dollars are

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[42]/ Local informants also suggested that there was a good deal of investment from rich Jakartan investors. These investors tend to buy larger lots (further away from main projects) than do Singaporeans.

[43]/ Business Times, 26/2/91:22.

[44]/ Straits Times, 31/5/91:48. These islands presently have a total population of about 600 families and contain but 20 kilometres of roads. The occupations of these people are fishing (90%) and farming (10%) (BIDA 1992). There is also a camp for Vietnamese refugees on Rempang which "will need to be moved." (Interview)

a common currency in the main centre of Tanjung Pinang.[45] In 1991, 85,000 tourists visited the 'big island,' mostly from Singapore.[46]

Bintan is the site of pharonic development schemes of its own. Although there are plans for industrial development on the island, its key role in the emerging matrix seems to be that of a water source and resort centre.[47] The resort plans are focused on the spectacular and untouched white sand beaches (at Pasir Panjang) in the 'remote' northern part of the island (but closer to Singapore[48]). This project is a joint venture involving some of the biggest economic players in the region such as the Salim group.[49]

The proposed Bintan Resort will take 10 years to construct at a cost of S$ 3 to 5 billion. It will occupy 19,000 hectares and will have up to 20 hotels and 10 golf courses. The project is premised on attracting some of Singapore's tourist throughput and hopes to draw some 1.2 million tourists a year (via Singapore) by its completion date some time near the end of the century.[50] The 'empty spaces' of northern Bintan are thus being reconfigured through the

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[45]/ It is indeed difficult for foreigners to use local (Indonesian) currency in the town.

[46]/ Straits Times, 9/4/92:2.

[47]/ The original scheme envisioned in the first agreements was to use the surplus water on Bintan. Plans are also now being drawn up to tap into water sources on Sumatra itself to supply Singapore. Bintan's surplus will now likely be diverted to Batam which is experiencing water shortages.

For an example of a 'classic' resort development on the island, see the story on Bintan Lagoon Beach and Golf Resort (developed by the Salim Group, Singapore Technologies and Straits Steamship Lands). It will involve a S$ 200 million 54 hole golf complex. Far Eastern Economic Review, 14/3/91:48.

[48]/ The beach resort will be connected directly to Singapore by a ferry running from Changi (near the airport) from a terminal constructed by the Port of Singapore Authority. - Singapore Investment News, May, 1992:5; or Straits Times, 21/4/92:1

[49]/ Led by the Salim group, this consortium also includes United Overseas Bank, Overseas Chinese Banking Corporation and DBS Land (i.e. Singapore's largest banks) as well as Singapore Technologies, Straits Steamships and Wah Chong International. From Indonesia, the Riau Administration Office, the Indonesian Navy Foundation and Bimatara Citra Group are also involved. - See Business Times, 4/2/91:1; Straits Times, 9/4/92:2.

[50]/ Straits Times 9/4/92:2.

circulatory and perceptual fabric of space. The local impacts of this reconfiguration are immense.

The resort is expected to employ from 100 - 130,000 people (i.e., equivalent to almost the entire present population of the island).[51] "The pay-off will be the transformation of a primitive backwater just 50 kms from Singapore into a tourist idyll."[52] In this way, the island is being re-positioned in the flows of global tourism. As if to confirm this re-positioning, Club Med has been reported have been scouting Pasir Panjang Beach for one of its "global villages."[53]

The residents of this area of the island whose lands are being expropriated and are now fighting for greater compensation. They were offered about 12-16 Singapore cents a metre for their land but say they should get about S$ 1.50 a metre[54] (note this is still only about 44% of the average land value on Batam in 1992). Complaints to government officials have been ignored and indeed recalcitrant residents have been warned that should they reject the offer they would be regarded as "anti-development subversives."[55]

The island of Bulan (population 400) is being touted as an agro-processing centre. The entire island has been leased by the ubiquitous Salim group.[56] The scale of this development

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[51]/ Straits Times 9/4/92:2.

[52]/ Singapore Report on the Growth Triangle, 4/6/92:1.

[53]/ Business Times, 18/6/92:3. The group from Club Med emphasized the importance of "The fact that the Singapore government is behind the project." cited in Singapore Report on the Growth Triangle, 4/6/92:1.

[54]/ Straits Times, 28/9/91:23.

[55]/ Straits Times, 20/6/91:15, see also 28/9/91:23; and Singapore Report on the Growth Triangle, 11/11/91:5. It is also of note that there is some concern in the Indonesian military that Batam and the Riaus may become a centre of resistance for various disaffected groups such as those from Aceh. Straits Times, 20/6/91:15.

[56]/ Johor Operational Master Plan, 1992:3-2; and Far Eastern Economic Review, 18/10/90:77.

is spectacular. By 1990, there were 120,000 swine on the island. This figure is expected to reach 360,000 by 1998 when the island will provide for 50% of Singapore's pork demand (from Moslem Indonesia). These swine will cohabit with a farm which presently rears 5,000 crocodiles (for skin and meat) and which is expected to reach production levels of 55,000 by 1996. Chicken production has started soon and will reach a production peak of some three million per year and will supply the region's Kentucky Fried Chicken outlets. The island will also hold the world's largest orchid farm at 4.8 million pots/year.[57] These projects are largely joint ventures between the Salim Group and Singaporean firms.[58]

Smaller islands throughout the chain are feeling the effects as well. Karimun Island to the west of Batam is being reconfigured as a site for a shipyard, oil facility and a quarry for the construction industry in Singapore and the Riaus.[59] Singapore's Sembawang and the Indonesian property and construction company Bangun Cipta Group (also associated with the Salim group) announced plans to build a shipyard and petroleum processing centre covering some 3000 hectares on the island. The shipyard will initially create 1,000 jobs. Karimun is said to have all the ingredients needed for a profitable shipyard: deep-water, lots of land and access to cheap labour.[60]

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[57]/ Asian Wall Street Journal, 5/12/90:10.

[58]/ Singapore International Chamber of Commerce Annual Report 89/90, 1991:40. For example, the pig farm is a joint venture with UIC, one of Singapore's largest private concerns. Liem Sioe Leong, the head of Salim, is also now a large shareholder in UIC.

[59]/ See Far Eastern Economic Review, 27/2/92:60. Karimun is already a major granite supplier for the area. Karimun provides about one million of Singapore's needed nine million tons of granite per year. Business Times, 27/4/92:1.

[60]/ The first 200 employees to be trained for work on the island came from other areas of Indonesia. - Far Eastern Economic Review, 27/2/92:61. For an enthusiastic vision of Karimun's future see Business Times, 15/4/92:9. Interestingly one of the first markets for platforms built on Karimun is Vietnam. - Singapore Report on the Growth Triangle, 4/6/92:2.

The petroleum centre involves Taiwanese and Saudi Arabian concerns[61] and will largely function as a storage facility for Singapore. The S$ 450 to 500 million Phase I of the project is expected to add 80% to Singapore's storage capacity as its global throughput grows. Karimun, in a few short years, has being relocated on the grid of global commerce from backwater to global node as it is swept into the eddies of global circulation.[62]

As investment spreads and diversifies, the regulatory (or lack of same) space controlled by the central government is also 'diversifying.' There has been an indicative spread of free trade designations throughout the archipelago. For example, Tunky Ariwibowo, Indonesia's Junior Minister of State for Industry has said:

> The duty free status will be not be granted on an area by area basis, but a project by project basis.[63]

The Bintan Resort and the oil terminal on Karimun have been granted duty-free status. The fraying of the edges of the duty-free zones is illustrative of the role of internal politics and its interaction with the increasingly prevalent winds of circulation which are swirling about the region. The role of bonded zones also highlights the state mediation of extensive globalization.

I. SUMMING UP: CHANGES IN THE RIAUS

The developments I have presented give one a sense of the changes gripping the Riaus. They demonstrate the speed and scope of change and the way changes are penetrating deeper into increasingly remote areas of the chain. They also illustrate the intriguing mix of tumult

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[61]/ See Straits Times, 18/7/92:48; or Singapore Investment News, August 1992:8.

[62]/ The developments in the Riaus are now pushing further and further south into the Lingga Islands and Singkep. Singkep in particular is catching the Indonesian government's eye as the 35,000 people on the island are largely involved in tin mining. The mines are expected to run out of ore within the next three years. - Straits Times, 3/4/91:6. Singkep also has a large Chinese population.

[63]/ Cited in Straits Times, 20/10/92:39; and Business Times 29-30/5/93:1. The implications of such a shift will be drawn out more fully below.

and control (by the state and large scale capital) which is characterizing the development process. The changes in the Riaus highlight some key themes: 1) the growing connectivity with Singapore and more distant markets; 2) the emergence of differentiated land and employment patterns (both within the Riaus and in contrast to Singapore).

Underlying these trends has been a dispossession of the local citizens as new landscapes are formed and the schism between public and private grows. In 1992, Batam had 26 banks and one traffic light.[64] Barely two-thirds of the population had access to a ready supply of water.[65]

New landscapes and lifestyles have been produced by the forces of economic change. These forces are the permutations of the mix of agency, market forces and circulatory transformations and the possibilities they have engendered. The mix is re-positioning the island beneath the winds of global economic restructuring. Beneath these winds the shadow residents seem powerless against the invasion of state power, investors and migrants who are transforming their 'place.'

Despite the important nuances of each case, both Johor and the Riaus exhibit the traits of mega-urbanization. Yet, the roots of this process find their impetus outside the mega-urbanizing belt. While the specific roles and actions of agents (state, labour, investors) in the regional margins cannot be discounted, it is changes in Singapore (and its global niche) which are rippling through the region. It is to the regional core where the discussion now turns.

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[64]/ New Straits Times, 6/05/92:25; and field survey 1991.

[65]/ Business Times, 15/4/92:10.

CHAPTER VI

CHANGES AT THE CORE
SINGAPORE: THE RAZOR'S EDGE

A. INTRODUCTION

Singapore is in many ways a marvel. My time on the island has engrained in me a deep appreciation of what its people have been able to build. The comfort of life and the quality of the built environment in Singapore are unmatched in Southeast Asia.

Between 1960 and 1990, GDP per capita (at current prices) increased from S$ 1,330 to S$ 26,604[1] (see Figure 6.1) - the highest of any Asian country except Japan. This is an impressive development for such a small country with virtually no resources save its population. Thus, the first thing to note when considering Singapore's current situation is the great success of the nation in the face of daunting odds.

The second feature to keep in mind about Singapore is that it is small. The population

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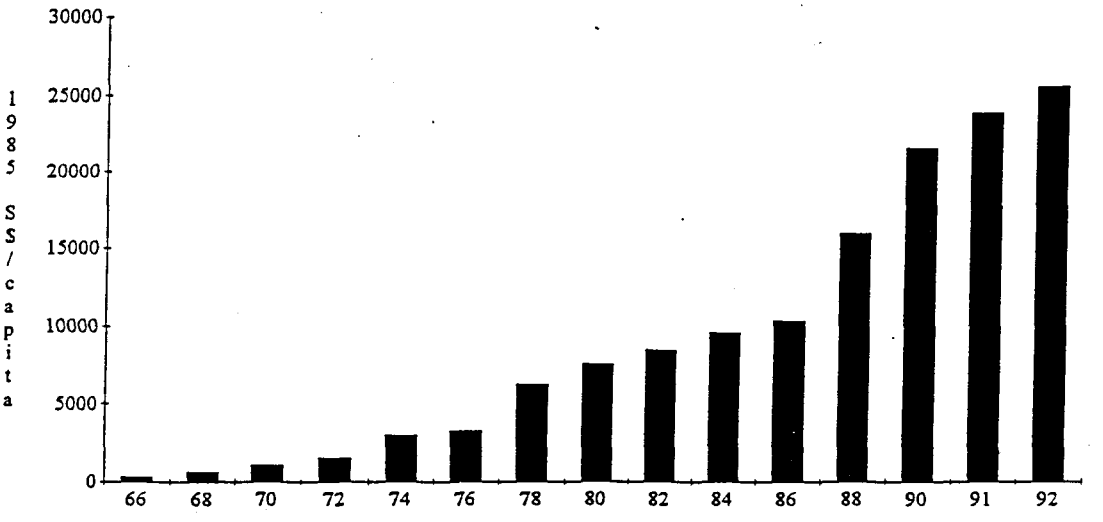
[1]/ Republic of Singapore, Department of Statistics (1983) Economic and Social Statistics, Singapore 1960-1982, Singapore, page 49; Economist Intelligence Unit (1993) Country Profile: Singapore 1993/94, London: EIU, page 14.

of some 2.7 million people live on an island which is only 42 kms x 23 kms (see Figure 6.2).[2] The country's size is critical for two reasons: 1) it makes the nation very quick on its feet (one can gather leading individuals in any sector in hours). In the tumultuous world economy, 'small can be beautiful';[3] and 2) it underpins a feeling of attachment to place and a sense of vulnerability to outside forces.

Figure 6.1
Change in Real GNP, Singapore 1966-1992
(Sing $)

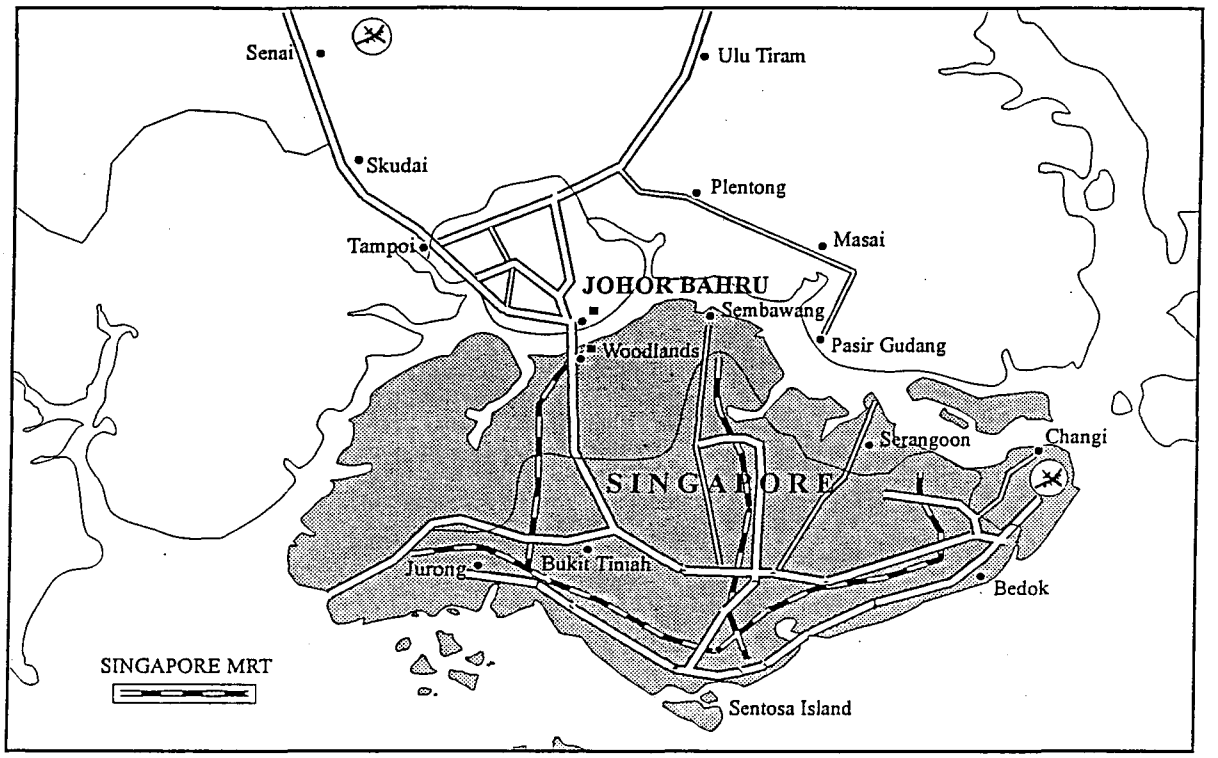


Source: Singapore, Public Access to Statistics Data Base, Matrix P40115

[2]/ The Republic of Singapore is composed of smaller islands as well. The populations on these outlying islands are negligible. There are also some 300,000 non-citizens living in Singapore.

[3]/ This phrase frequently came up when interviewing planners, business people and academics.

Figure 6.2
Singapore Island Map



Singapore, like all cities, is dependent on external sources for the resources which supply its needs. In Singapore's case these sources must be extra-national. Although the island is not completely built up, the epithet city-state fits in that there is no physical frontier (resource or otherwise) within the national boundaries. Singaporeans can not simply move to another area of the country if the city's fortunes decline -- there is no way out, save for emigration. As former Foreign Minister Rajaratnam has put it,

> Only in Singapore we have not got an escape hatch that many countries in Southeast Asia have. We have not got vast scrublands and lush jungles to which the dispossessed and impoverished can flee to scratch some sort of living, either by hunting or growing bananas and tapioca. Economic collapse or stagnation for a densely populated, non-agricultural and highly commercialized island like Singapore means mass starvation.[4]

Singapore sees itself as a very small, largely Chinese city-state with few natural resources adrift in an ethnic Malay sea[5] and a fluid and uncharitable global economy. It is also something of a space in search of a territorial/national identity. The population was long made up of 'sojourners' and is multi-ethnic. Even the 'Chinese' population is fragmented.[6] In order to forge a sense of unity, the government has played up the nationalist imperative as central to survival.[7] A core of the Singaporean psyche is a sense of vulnerability.

The emphasis on the competitive global milieu is pushed by the ruling People's Action Party. As Deputy Prime Minister B.G. Lee has said, "overnight, an oasis can become a desert."[8] The feeling of looming jeopardy has been there since Singapore became an

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[4]/ Cited in Raj Vasil (1989) "Trade Unions," in K.S. Sandhu and P. Wheatley (eds.) Singapore: The Management of Success, Singapore: Institute of Southeast Asian Studies, pp. 144-170, page 155.

[5]/ This view is something of a caricature, though it is a conventional wisdom. The imagery of ethnic antipodes is somewhat overdrawn. It is at least partially a relic from the colonial period (see Chapter III) which has been reconstituted within the frame of regional geopolitics. For example, there are important distinctions within Singapore's Chinese population and a number of authors have discussed the fluid and situational characteristics of ethnicity in the region and in Singapore especially. See for example, J. Clammer (1983) "Chinese Ethnicity and Political Culture in Singapore," in L. Lim and P. Gosling (eds.) The Chinese in Southeast Asia, Singapore: Maruzen Press, pp. 266-284, pages 269-274.

[6]/ As Chapter III outlined, Singapore's Chinese population is made up of distinct sub-divisions (e.g. Cantonese, Teochew, Hakka, Hokkein and Babas). Further, although one thinks of modern Singapore as a Chinese city-state, the ruling PAP has since its inception been dominated by English speaking/educated ethnic Chinese. This group is in many ways quite removed from the Chinese speaking population, and this chasm is an emerging political and social issue in the Republic. - See Far Eastern Economic Review, 31/10/91:20-21.

[7]/ This theme is developed more fully below.

[8]/ Cited in James Clad (1989) Behind the Myth, Business, Money and Power in South East Asia. London: Unwin-Hyman, page 144.

independent country.[9] Its presence supports state control and the ability to carry out measures to maintain economic growth which might otherwise seem unpalatable to the nation's citizens.

The third key distinction arises from (and in part generates) the concerns for survival. The government of Singapore is singularly consumed with managing the nation's economy and society.[10] This management occurs through heavy internal regulation and the continuous invocations of global competition and the survival of the city-state. As Former Prime Minister Lee Kuan Yew has put it,

> Societies like ours have no fat to spare. They are either lean and healthy or they die. We have calculated backwards and forwards for eleven months on an independence we never sought, that our best chances lie in a very tightly organized society.[11]

In this way, the representation of global economic space is integral to the formation of local power and the ongoing dominance of the People's Action Party (PAP) which has been in control since independence. The representation of external threats is matched by an emphasis on state-built internal symbols of national success such as the 'world's best' airport, port, public housing program, and the ultra-modern Mass Rapid Transit System (MRT). The landmarks of the physical landscape are both monuments to the nation's achievements and indicators of the state's successful stewardship. This stewardship is pervasive.

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[9]/ See for example, Chan Heng Chee (1971) Singapore: The Politics of Survival, Singapore: Oxford University Press.

[10]/ This theme can not really be overstated. See Chan Heng Chee (1989) "The Structuring of the Political System," in Sandhu and Wheatley (1989) (eds.) op cit, pp. 70-89, page 78 where she refers to Singapore as an 'administrative state'; J. Clammer (1985) Singapore: Ideology, Society, Culture, Singapore: Chopman Press, pages 159-169, where the term is 'hegemonic state'; or G. Rodan (1989) The Political Economy of Singapore's Industrialization, Kuala Lumpur: Forum; and G. Rodan (1993) Singapore Changes Guard: Social, Political and Economic Directions for the 1990s, New York: St. Martin's.

[11]/ Cited in Chan Heng Chee (1989) op cit, page 70.

The government of Singapore has developed an aura of non-corruption and efficiency. The model of the efficient bureaucracy stretches from its pinnacle (former PM Lee Kuan Yew) on through the state's many arms. It is premised on the idea of a 'meritocracy' -- a Confucian ideal which places a great deal of emphasis on the legitimacy of bureaucrats in that they are seen as the best and the brightest.[12]

The state's current goal is to join 'the super league' of developed nations.[13] This goal is to be achieved through heavy social regulation, a corporatist approach to managing labour-capital relations and through massive investments in social and infrastructural capital.[14] The high levels of 'internal' regulation, representation and the survival imperative are matched by a deep emersion in global economic affairs.[15]

An over-riding concern of the government's strategies is to provide an attractive setting for international investment (to capture the winds of global commerce in the sails of the ship of state).[16] Singapore is (almost uniquely) deeply imbedded in the global circulation of goods, people, capital and information. As the Government's 1986 Report of the Economic Committee

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[12]/ This idea also permeates the ruling People's Action Party (PAP). The careful selection and development the party's cadre are seen as being of the utmost importance. See the comments of Lee Kuan Yew Straits Times, 31/7/94:4. There is also an important interchangeability between the city-state's political and corporate elite.

[13]/ P.M. Goh Chok Tong, Independence Day Speech, August, 1992.

[14]/ On the corporatist theme and labour control, see F. Deyo (1981) Dependent Development and Industrial Order: An Asian Case Study, New York: Praeger, pages 41-54. For a concise outline of investments, see S. Siodia (1992) "Singapore Invests in the Nation Corporation," Harvard Business Review, May-Jun, pages. 40-50.

[15]/ Castells et al have highlighted institutional tensions between the arms of the government focusing on external issues (e.g. EDB) and those with an internal focus (e.g. HDB). Castells et al (1989) op cit, page 206.

[16]/ An intriguing aside to this openness has been outlined by Albert Winsemius, a United Nations technocrat credited with shaping much of Singapore's economic strategy. He has related how he "...advised that the statue of Raffles be kept standing in the middle of the city, as proof of our willingness to accept and even welcome assistance from abroad where we need it." Cited in Chow Kit Boey, Chew Mah Lein and E. Su (1989) One Partnership in Development: UNIDO in Singapore, Singapore: United Nations Association of Singapore, page 17.

put it, "No other economy in the world is as dependent on exports as is ours."[17] There is more than rhetoric to this statement. Singapore depends on foreign trade for over 300% of its GNP and foreign investment accounts for about 80% of equity in manufacturing.[18]

Thus, a fourth point is that changes in Singapore are very reflective of changes in the nature and geographies of the globalizing capitalist marketplace, as filtered through state mediation. This sensitivity to changes in global market conditions and competitive milieux makes Singapore something of a prescient weather vane -- adjusting to changes in its economic context at propitious times. Today, the winds of globalization seem to be changing, and Singapore is changing as well. Perhaps more than any other nation on earth, Singapore can only be understood through the tensions underlying the global-local interface.

In many polities the role of the national state is declining (with fragmentation and due to inflexibility).[19] In Singapore with its small size, tight social control and capacity to act quickly, the state is still very much at the heart of the intersection of global and local economic spaces. Indeed, the Singapore government's role in mediating local and global dynamics may well be the defining facet of Singapore.

In sum, the four elements to keep in mind about Singapore are: 1) its success; 2) its size and consequent flexibility and sense of vulnerability; 3) the state's pervasive role in internal regulation and external positioning (i.e., at the heart of the global-local nexus); and 4) its

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[17]/ Republic of Singapore, Ministry of Trade and Industry (1986) Report of the Economic Committee: The Singapore Economy: New Directions, Singapore, page 10.

[18]/ These levels of external dependence are discussed in much more detail below.

[19]/ I would argue that the inability to bridge macro/micro tensions is the key problem facing the nation state today.

integration with, and reflectivity of changes in the global economy. These elements are deeply interdependent, they feed one from another.

The global economy is undergoing rapid changes and Singapore, the state and its people are groping for a new path to assure future successes. Singaporean officials and concerned business leaders whom I interviewed all expressed a deep concern for how the nation would find its footing as it pursues its Next Lap.[20]

The changes currently emerging in Singapore and its periphery reflect an urgency and a tension which has gripped the city-state as it searches for a new path to success within the competitive global economy which so transfixes its dreams. One can not understand the importance, urgency or lineage of these changes without glimpsing the post-independence economic developments which forged the present political economy of the Republic of Singapore.

B. RECENT HISTORICAL ANTECEDENTS

1. Decline of an Entrepot

> Everyone knows the reasons why the federation [with Malaysia] is important to Singapore. It is the hinterland which produces rubber and tin that keeps our shop window economy growing. It is the base that made Singapore a capital city. Without this economic base Singapore would not survive. (Lee Kuan Yew, 1965)[21]

In the 1960s the Singapore economy faced a number of crises. First, there was a high level of labour strife and radicalism (in 1963, 388,219 person-days of work were lost to

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[20]/ Republic of Singapore (1991) The Next Lap, Singapore: Times Editions, Ltd. This document is discussed at length below.

[21]/ Cited in Chan Heng Chee (1971) op cit, page 4.

industrial disputes; none have been lost since 1978).[22] Second, the British government announced (in 1968) its intentions to withdraw from its naval base in Singapore and as a result Singapore faced the prospect of losing the US$ 500 million dollars a year that the base brought to the city. In addition, Singapore would have to develop its own defense capacity.[23] Third, secession from Malaysia (in 1965) truncated the economy from the hinterland on which Lee Kuan Yew had based so much of his import substitution economic planning.[24] Fourth, the *Konfrontasi* (confrontation over the division of the Malay world) policy of Indonesia cut into investment levels and economic interchange in the region (starting in 1963).[25]

The combination of these developments and the lack of a resource base (beyond population and location) exposed the Singapore economy as extremely vulnerable and the prospects were indeed bleak. In the mid 1960s, 60% of the population lived in poverty and 63% of all households lived in one-room apartments in shophouses.[26]

Singapore was in something of a spatial trap. The city-state had lost key elements of both its global and regional niches. As local geo-political dynamics precluded reinvigorated regional ties, the country had to turn back to the international stage with even more vigour, but

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[22]/ Economic and Social Statistics, Singapore 1960-1982, (1983) op cit, page 42.

[23]/ Singapore's 'founding father,' Lee Kwan Yew, has said that at this time Singapore was "a capital of the British Empire in Southeast Asia, but dismembered from the hinterland that was the Empire." Cited in Chow Kit Boey, Chew Mah Lein and E. Su (1989) op cit, page 3.

[24]/ On the day of Singapore's cessation from Malaysia Lee Kuan Yew said, "For me it is a moment of anguish because all my adult life... I have believed in the merger and unity of these two territories." Cited in M. Leifer (1989) "The Conduct of Foreign Policy," in Sandhu and Wheatley (1989) (eds.) op cit, pp. 965-981, page 966. This point is also treated at some length in G. Rodan (1989) op cit, pages 63-84.

[25]/ Singapore's recently independent neighbours were also seeking direct trade ties with their markets. Although this process of bypass did not in the end undercut the city's centrality, policy makers perceived it as a threat.

[26]/ I. Buchanan (1972) Singapore in Southeast Asia, London: Bell, page 61.

in a new way. Beginning as early as 1960-61 with a UN study which suggested that the key policy option for Singapore was to engage in Export Oriented Industrialization (EOI), the government increasingly turned to the export route to generate economic growth.[27]

2. Joining the NIDL as Export Platform

Singapore turned outward to the global milieu to embrace the then nascent New International Division of Labour (NIDL).[28] During the late 1960s, it sought to position itself as a stable, relatively low cost manufacturing export centre. This policy was immediately successful as the economy began to grow at rates of over 10% a year within months of the policy shift.[29]

A controlled and inexpensive local labour force was crucial to attracting investment.[30] Buchanan relates that the Minister of Labour at the time, S. Rajaratnam, claimed that a change in labour laws led to a jump in investment from S$ 184 million in 1968 to S$ 515 million in 1969.[31] By 1972, the nation had reached 'full employment levels' and in 1974 exports surpassed

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[27]/ This report which is known as the Winsemius Report had a tremendous policy impact in Singapore. It setting the tone for the future embrace of EOI. The report actually suggested that the economy should be focused on manufacturing, marine transport, finance and tourism, but that the emphasis must be on manufacturing. It should be noted that despite the role of industry in Singapore's post-1960s economic transformation, the city-state has almost always run a merchandise trade deficit. See Economic and Social Statistics, Singapore 1960-1982, op cit, page 68.

[28]/ The model of the NIDL as originally propounded by Frobel et al (1981) focused on labour costs and the textiles industry. See F. Frobel, J. Heinrichs and O. Kreye (1980) The New International Division of Labour, New York: Cambridge University Press.

[29]/ See especially Rodan (1989) op cit, pages. 98-101.

[30]/ See Deyo (1981) op cit.

[31]/ Buchanan (1972) op cit, page 74. The important labour legislation which affected the bargaining power of unions included the Employment Act of 1968 and the Industrial Relations Act of the same year. Through these acts hours of work were increased and the position of management was enhanced in collective bargaining. See also, F. Deyo (1989) Beneath the Miracle, Los Angeles: University of California Press, Pages 124-130.

re-exports (indicating a shift away from entrepot functions).[32] The nation's success was fundamentally premised on the intersection of global links and 'local' labour processes.

The NIDL was the expression of a new spatial fabric of economic activity on a world scale. Taking advantages of advances in communications, transport and production technologies, the 'global assembly line,' as it has been called, identified production niches in various locales in a world-spanning production system. Singapore's needs met with those of transnationalizing corporations within the new production system.

Singapore explicitly realized that because of its small size it could not hope to sell to the world unless it attracted transnational firms. It took advantage of their technologies and distribution channels.[33] Singapore offered more than low wage rates, incentives and increasingly tight social controls (and resultant stability). These elements were not in themselves enough. Singapore also presented investors with good transportation connections,[34] low costs for imported intermediate parts (low tariffs) and freedom of expatriation of profits and movement of machinery (i.e., fluidity).

It was in a system such as the NIDL that city-states like Hong Kong and Singapore could thrive without close contacts with rural hinterlands. (Indeed, they would benefit from not having to pay for rural development.) They became 'production platforms' in a world grid of

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[32]/ Nomura Asia Focus, 6/92:4.

[33]/ Interview with D. Selveratnam, Chief Planner, Singapore EDB, October, 1992. There was also perceived to be less risk of failure among large transnationals than in smaller indigenous firms. See Lee Kwan Yew (1978) Extrapolating from the Singapore Experience, Singapore: Ministry of Culture, page 14.

[34]/ Singapore's accessibility is emphasized by Castells et al. They write that Singapore has, "Industrial, business, and communications infrastructure that integrates a somewhat distant location into the actual space of production and management." M. Castells, L. Goh and R. Y-W Kwok (1990) The Shek Kip Mei Syndrome, London, page 164.

platforms. The traditional intermodal role of Singapore as transfer point for global and local exchange was diminished greatly during the years following independence (see Table 6.1). The level of movements between Singapore and its region declined as the city settled into its niche as production platform.

Table 6.1
Trade with Malaysia, 1964-1980 (as % of Total Trade)

1964	41%
1968	33%
1972	25%
1976	19%
1980	20%

Source: Social and Economic Statistics, Singapore 1960-1982, pages 122-123.

This 'locally disconnected' aspect of the NIDL and the Singapore state's system of strong supports for transnational capital was reflected in the marginalization of indigenous capital as a player in Singapore's industrial sector (see Figure 6.3).[35]

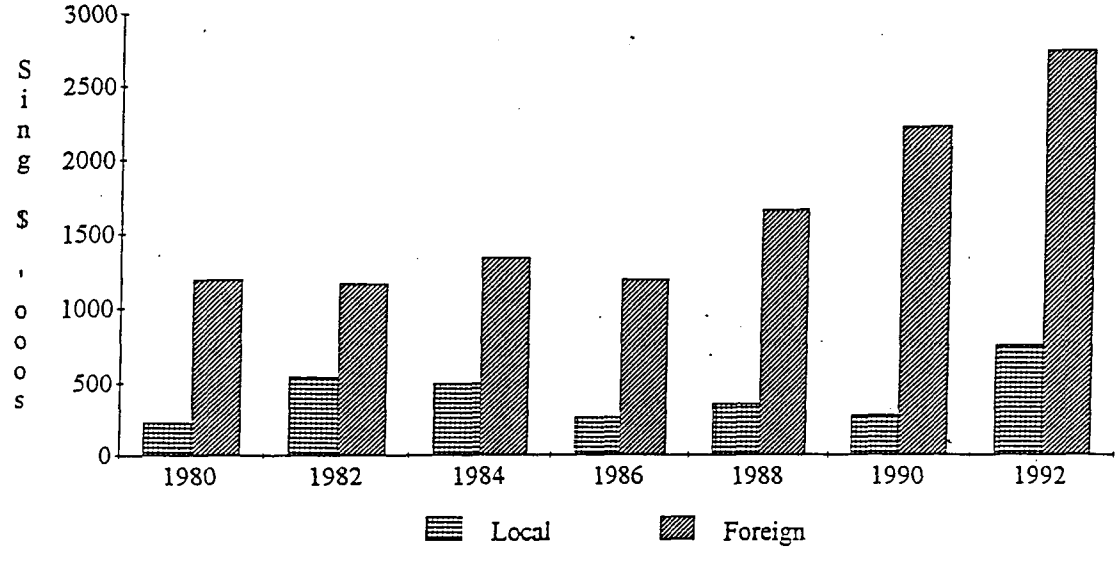
From the outset, Singapore's success as an independent nation has always been based more on attracting external capital than on the growth of indigenous private capital. This point is a key one in terms of understanding Singapore's success, and it is important to arguments about pro-active globalization (e.g., 'marketing place' by local governments) made in this

[35]/ A development which is widely rued in the Republic today. See Finance Minister Hu's comments on the need to change the tax structure to help small firms grow (internationally) - Sunday Times 11/11/91:5 or speech by Minister of Trade and Industry B.G. Lee to Singapore's Manufacturing Association on "Keeping the Field Even for All," published in Business Times 12/12/91.

For an excellent review of the fate of smaller, 'local' private firms in Singapore, see Chew Soon Beng (1988) Small Firms in Singapore, New York: Oxford University Press.

dissertation as well. In any event, the Republic became hugely dependent on foreign investors to sponsor its growth.[36] Despite the apparent risks, the international strategy yielded high dividends. By 1992, about 84% of Singapore's domestic exports came from TNCs.[37] The critical strategic choice to open the economy has been both the source of the nation's success and its current sense of vulnerability as it is so dependent on fluid and fickle streams of international investment capital and trade.

Figure 6.3
Singapore's Dependence on Transnational Equity, Manufacturing 1980-1992



Sources: Economic and Social Statistics, Singapore: 1960-1982; Singapore Economic Survey (Various Years).

[36]/ For example, foreign capital was responsible for 89% of investment commitments in manufacturing in Singapore in 1991 (a consistent level). See Singapore International Chamber of Commerce (1991) Investment Guide, page 1.

[37]/ Republic of Singapore, Department of Statistics (1992) Singapore, Yearbook of Statistics, 1992, Singapore: Singapore National Printers.

The globalization of the economy, however, also underpinned a rapid improvement in social services. It was during the 1970's that Singapore's social programs began to take off. For example, the percentage of Singaporeans living in public housing flats increased from 35% to 74% from 1970 to 1980 (housing is discussed in Chapter IX).[38]

3. Singapore's Hybrid Externally-Based Fordism

In the 1970s, Singapore had a fortuitous (and planned) conjunction of developments. First, the global oil shortage and price increase of 1973 ironically served to fuel the Singapore economy and sustain its relative independence from the regional base. Singapore had become a major oil refining centre (largely in response to the Vietnam war). Due to the city-state's role as a petroleum centre, it benefitted as though it was an oil producer. The years 1973 and 1974 stand out in statistical tables for their increase in national value-added and export receipts. The value of petroleum output jumped from S$ 1.9 billion in 1973 to S$ 5.7 billion in 1974.[39]

Secondly, during the latter half of the 1970s the focus turned to electronics (where output increased 400% from 1975 to 1981[40]). The electronics boom was fuelled by the deepening of the NIDL (especially in computer products) and sharp jumps in productivity vis

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[38]/ Economic and Social Statistics, Singapore 1960-1982, op cit, page 118. For a broad review of the housing push, see Chua Beng-Huat et al (1985) Designed For Living: 25 Years of Public Housing in Singapore, Singapore: Housing and Development Board; Aline K. Wong, S.H.K Yeh (1985) (eds.) Housing a Nation: 25 Years of Public Housing in Singapore, Singapore: Maruzen Asia for Housing and Development Board; and Castells et al. (1989) op cit. The housing program will be addressed in more depth in Chapter IX.

[39]/ Economic and Social Statistics, Singapore 1960-1982, op cit, page 77.

[40]/ Ibid, page 91.

wage levels. For example, value-added per worker in the electronics industry increased from S$ 17,300 in 1978 to S$ 23,300 in 1980.[41]

Ironically, although the shift to electronics helped to avoid volatility in oil prices it also moved the economy into a much more fragmented production process and as such made it more susceptible to external price competition (especially in terms of labour inputs).[42]

Much of the logic of the NIDL was based on international firms finding lower labour costs away from the industrial core economies for specific discreet and easily transferable production activities.[43] As the NIDL became more pervasive and competitive, the efficacy of Singapore competing through low wage rates came into question as full employment led to upward pressure on wages, and there was no national rural source of in-migration to fill low wage jobs. Singapore's attractiveness as a low wage centre began to wane. For this reason, it became apparent to Singapore's policy makers that they would need to establish a different niche in the NIDL.

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[41]/ G. Rodan (1985) Singapore's Second Industrial Revolution: State Intervention and Foreign Investment, Kuala Lumpur and Canberra: ASEAN-Australian Joint Research Project, page 40.

[42]/ A 1992 interview with Dupont Asia outlined the importance of this shift. Petrochemical production requires tremendous fixed investments and is a 'continuous process' -- leading to concentrated, relatively inert production spatialities. (See, for example, the discussion of investments in systems upgrades in The Oil and Gas Journal, 20/7/92:23-28.)

Electronics production is, on the other hand, fragmented and has various levels of fixed capital stock. The electronics sector ranges between industrial and consumer markets. In Singapore, there has been a great deal of focus on disk drives for PCs. This focus has been fortuitous as the disk drive market stayed quite strong while, consumer electronics went into a slump in the early 1990s).

Throughout this study I have shied away from looking at the petrochemical industry in Singapore. Although the industry is crucial to the city-state's success, it is not a key element of either the Growth Triangle or of the development of Singapore as a world city. For summaries of the Singapore petrochemical complex see Tilak Doshi (1989) The Houston of Asia: A Study of the Singapore Petroleum Industry, Singapore: Institute of Southeast Asian Studies; or F. Fesharaki (1986) Singapore as an Oil Centre, Honolulu: East-West Centre.

[43]/ Singapore's niche was, for only a short time, based on cheap labour and was not heavily based on textiles. Rather, the city-state offered a conducive free-trade environment with tight labour controls and excellent transport facilities for the production of intermediate parts.

4. Singapore's Great Leap Forward[44]

By the late 1970s, the government concluded that it was necessary to move the economy into higher levels of productivity and value-addition but to continue to offer stability in order to reach for higher levels of development. The goal was set to achieve Japan's GDP/capita figure of the late 1970s by 1990. Over the years, the government instituted policies encouraging wage increases for workers which led to increases in investment in capital stock and resultant increases in productivity which would then be the gauge by which wages were set.

The period 1979-1985 has been called Singapore's 'Second Industrial Revolution.'[45] In many ways, this was the hey-day of the development of Singapore as a city-state. It was enmeshed in the NIDL, but relatively isolated regionally. Incomes were increasing and the growth rate averaged over 8% per annum. Singapore had managed to construct a unique kind of globally articulated Fordism (i.e., with both increasing wage and productivity levels).[46] Construction of public housing grew at a rate of up to 47% per annum[47] and pension contributions reached almost 50% of wages.[48]

5. The Need to Restructure: Finding Higher Levels of Value-Addition

In the mid-1980s the logic of the Singapore model began to come apart. A number of

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[44]/ A term coined by Castells et al (1991) op cit.

[45]/ This term is fully developed in Rodan (1985) op cit, but is widely used.

[46]/ Wage guidelines were meant to be linked to productivity increases and issued by the National Wages Council (NWC) which is composed of five employer representatives, five representatives of employees and four government members.

[47]/ Castells et al (1991) op cit, page 199.

[48]/ This was up from about 16% in 1970. See Economic and Social Statistics, Singapore 1960-1982, op cit, page 31.

shocks hit the economy. These included:

> 1) A sharp oil price decline cut into refining profits. Moreover, a more general commodity price collapse also hurt Malaysia and Indonesia. The downturn in these important markets undermined Singapore's residual role as regional theatre of accumulation;
>
> 2) Following the collapse of Pan-electric, the Singapore Bourse crashed;[49]
>
> 3) The land market collapsed due to severe overbuilding;
>
> 4) There was a deep recession in core markets;
>
> 5) The Singapore dollar (tied to the US $) appreciated rapidly making exports more expensive;

The nation experienced an extreme shock in the recession of 1985-86. For the first time in 20 years, Singapore actually experienced negative growth (-1.6%). The impact of this moment on the psyche of the nation and its economic planners can not be overstated (see the impact on unemployment patterns in Figure 6.4[50]).

The crisis spurred very rapid adjustments from the government (illustrating the quickness which comes from a small size and strong state). In response to the new crisis, an Economic Committee was formed to analyze the weaknesses in the economy.[51] Although the crisis was in part the result of the shocks outlined above and focused on a severe downturn in the over-

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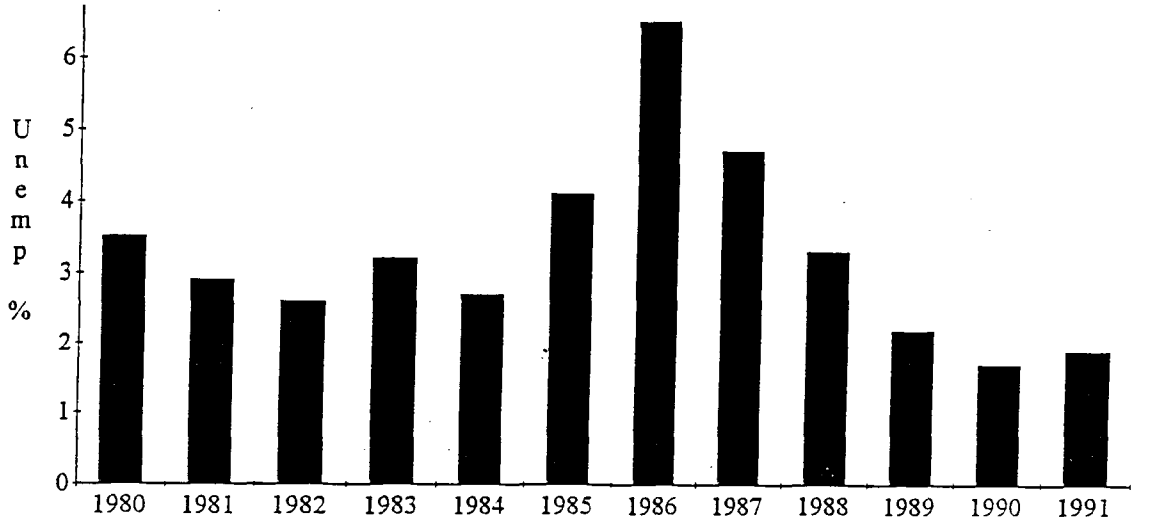
[49]/ This event led to the closing of the exchange for three days and led to increase government control of the SES. - Banker, 1/86:47.

[50]/ Figure 6.4 fails to capture the full scope of the down turn as tens of thousands of foreign workers were sent home as well.

[51]/ The resultant report was entitled The Singapore Economy: New Direction. The Committee was chaired by Lee Kuan Yew's son, Lee Hsien Loong. Singapore, Ministry of Trade and Industry (1986) Report of the Economic Committee: The Singapore Economy, New Directions. It is useful to note that at the time (1985) most analysts were predicting a long downward spiral for Singapore and that the economy was "drifting directionless." See Far Eastern Economic Review, 26/12/85:53.

heated construction sector (which until that point had been fuelled by the government), the government delved deeper to explain the economy's weakness.

Figure 6.4
Unemployment Rate Singapore, 1980-1991



Source: Singapore Institute of Labour Studies (1992) Digest of Singapore Labour Market Statistics, 1991, Singapore: SNP, page 38.

The committee's findings focused on two structural issues: 1) the economy's attractiveness to external investors; and 2) over-accumulation, a preponderance of unproductive investment. The key reason for the economic downturn was to be found in a decline in returns to foreign investors. Return on equity for transnational investors declined from 23.5% in 1980 to 4.5% in 1985.[52] The Economic Committee argued that Singapore needed to re-invent its attractiveness to international capital.[53] This move involved a cut in industrial labour costs

[52]/ Economic Survey of Singapore: 1Q, 1992, page: 26.

[53]/ Among the policies pushes of this report were the following: 1) cut wages; 2) cut CPF contributions; 3) reform wage payments towards a more flexible system based on bonuses; 4) cut fees from statutory boards; 5) insulate banking sector from collapse in land prices (limit land released for development); 6) reduce savings rate; 7) cut

across the board (slashing employer's wage bills by 12%[54]), cutting tariffs and taxes (see Figure 6.5) and restructuring the economy -- moving out of low end manufacturing activities and into areas of more capital intensity and more value-addition such as design, whole product manufacturing and services.

As the government noted, "Our competitive advantage in exporting services is greater than our advantage in exporting goods."[55] "Our greatest potential for growth lies in this area [services]: banking and finance, transport and communications, and international services."[56] Government policy documents unanimously argued that to succeed, Singapore would need to globalize still further than it had in the past. Singapore would need to re-position itself as a "total global business centre."[57] To do this the nation would have to attract more regional headquarters functions of global firms.[58]

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corporate tax from 40 to 30%; 8) offer investment allowances of 30%. - Report of the Economic Committee: The Singapore Economy, New Directions. op cit.

[54]/ This cut was especially felt in terms of CPF contributions which had come to reach 50% of income! Castells notes that the wage issue was in part a chimera. In terms of domestic currencies wages grew more slowly in Singapore than in Hong Kong, S. Korea or Taiwan. It was simply a matter of an appreciating currency (so much the focus of MAS) which marginalized manufacturing in an effort to attract service functions, even to that date. - Castells (1988) op cit, page 60

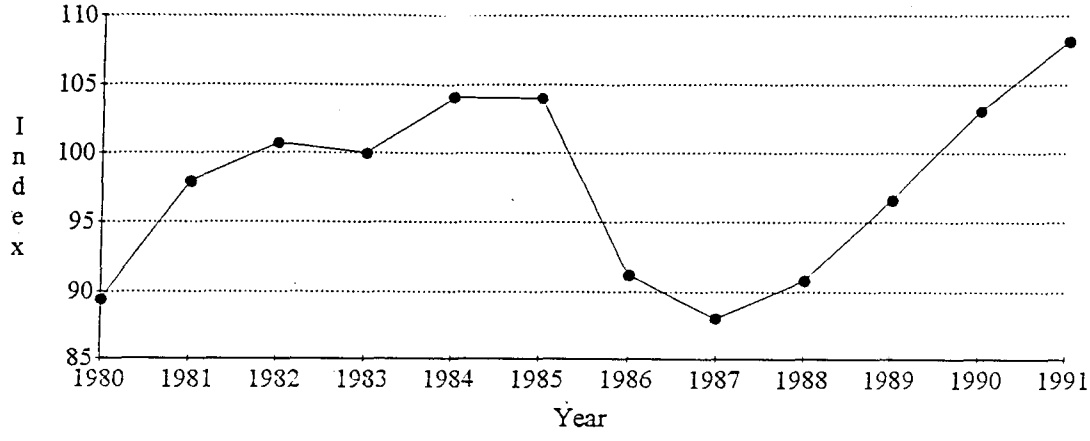
[55]/ Report of the Economic Committee: The Singapore Economy, New Directions. op cit page 11.

[56]/ Report of the Economic Committee: The Singapore Economy, New Directions. op cit, page 19. Note also that although the growth in producer services may be seen as an international opportunity, it has local roots. The services sector, including transport, financial services and business services have the highest levels of local equity (by a substantial margin) and the service push may ironically be seen as a way of resting control of the economy back into the hands of Singaporeans. This theme is discussed further below. See Republic of Singapore, Department of Statistics (1992) Foreign Equity Investment in Singapore, 1980-89, Singapore, page 6.

[57]/ Report of the Economic Committee: The Singapore Economy, New Directions, op cit, page 12. Indeed, the mission statement of the EDB (Economic Development Board) is "To evolve Singapore into Global City with Total Business Capabilities." [Capitalization in Original] EDB (1991) EDB Yearbook 1990/91, Singapore.

[58]/ The Operational Headquarters (OHQ) incentives were initiated in 1986 offering tax breaks to headquarters activities. It is discussed in Chapter XI.

Figure 6.5
Changes in Unit Business Costs in Manufacturing
Singapore, 1980-1991
(1983 = 100)

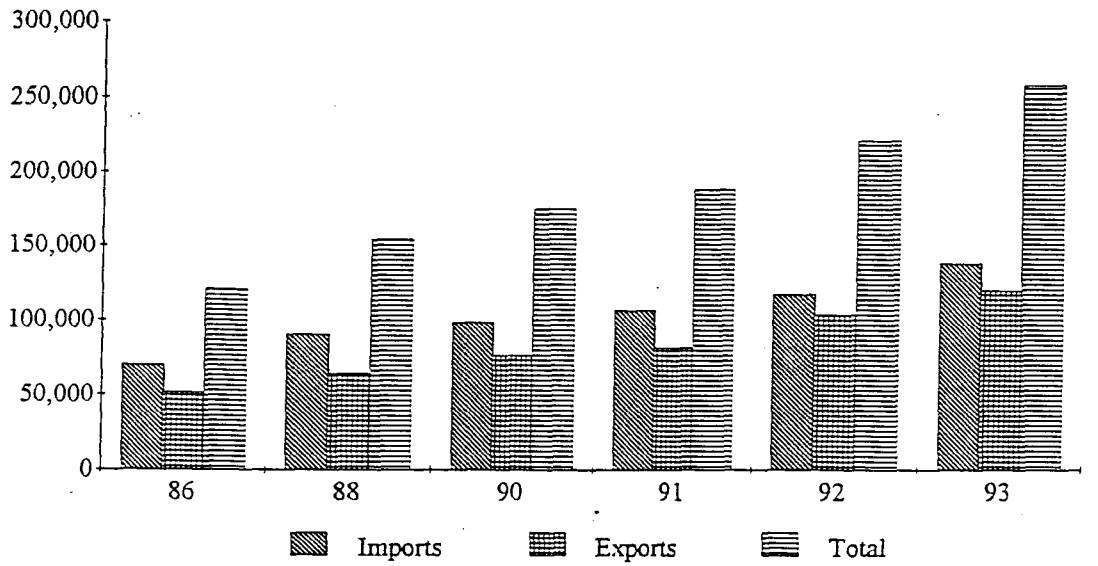


Source: Digest of Singapore Labour Market Statistics, (1991) op cit, page 20.

The moves mapped out by the Economic Committee required an even deeper engagement of global (and regional) economic forces than Singapore had already relied upon. It was felt that higher levels of value-addition would best be captured in high-end international business and financial services which might frame Singapore's emergence as a global city.[59] Since 1986, there has been a marked increase in Singapore's already high levels of interaction with the international economy as seen in throughput of circulation.

[59]/ The idea of Singapore as a global city stretches back to the mid-1960s. Originally the focus was on geopolitics and as Foreign Minister Rajaratnam put it, "giving as many countries as possible a tangible stake in the security, prosperity and integrity of Singapore." Rajaratnam has more recently alluded to the term 'global city' as connoting Singapore as a focal point in the world network of ideas. In practice, the term would seem to have more to do with attracting business than a commonwealth of learning, but it does outline a distinctly Singaporean vision. See K.S. Sandhu and P. Wheatley (1989) "The Challenges of Success," in Sandhu and Wheatley (eds.) op cit, pp. 1067-1106, page 1103.

Figure 6.6
Singapore, Total Trade Volumes, 1986-1993



Sources: Economic Survey of Singapore, (various)

Total cargo movements took off after 1986 and more than doubled in the six years from 1986 to 1992 (see Figure 6.6). By 1994, Singapore's total trade in the second quarter reached S$ 78 billion (a 20% growth from the year before).[60] No country in the world, outside of Hong Kong, comes close to Singapore in per capita trade volume or in the fact that trade value is over three times GDP.

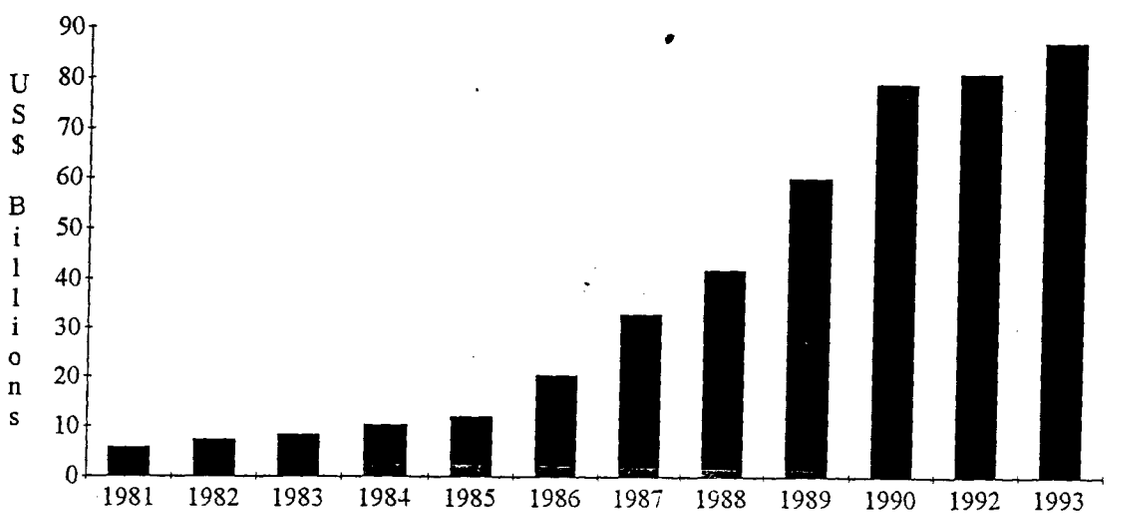
The physical trade deficit grew from S$ 4.7 to 13 billion from 1988 to 1993.[61] This imbalance was met by increases in the export of services. Service exports showed a surplus

[60]/ Economic Survey of Singapore, 2Q, 1994, op cit, page 15.

[61]/ Economic Survey of Singapore 2Q, 1994, page 73. The Economist Intelligence Unit presents different data suggesting the trade deficit increased to S$ 14.1 billion from 1987 to 1992. - EIU (1993) op cit, page 34.

of S$ 17.5 billion in 1993.[62] The growing reliance on service exports outlines the deepening of Singapore's global niche within the less tangible elements of the globalizing economy.

Figure 6.7
Forex Trading, Singapore 1981-1993
(US $ Billion/ Day)



Data unavailable for 1991

Source: Monetary Authority of Singapore (1992), op cit; and Economic Survey of Singapore. (1993 and 1994);

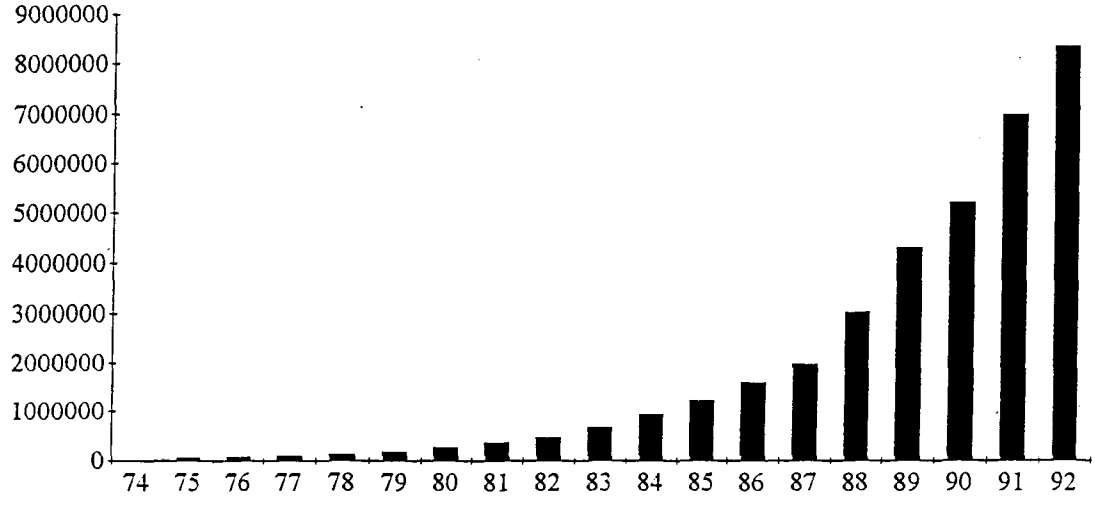
Financial flows are difficult to track as their place of origin and 'frequency' (i.e., number of international transactions per day) levels are difficult to gauge. I have used the level of forex trading as a gauge of international capital movements through the city from 1981-1991 (see Figure 6.7). Forex trading levels jumped 270% from 1985 to 1992. Again one can note an

[62]/ Economic Survey of Singapore, 2Q, 1994, page 73. One should again note that the city-state's niche has long depended on services to counter balance merchandise deficits. See data presented in Economic and Social Statistics, Singapore 1960-1982, page 68.

increase in the rate of growth after 1986. By 1992, Singapore had become the world's fourth largest forex centre (after London, Tokyo and New York).[63]

International telephone traffic volumes also generally paint a picture of increasing international integration. International calls increased 1700% from 1981 to 1991 illustrating the city-state's growing international connectivity.[64] Figure 6.8 illustrates the notable upward shift in the rate of growth during the critical post-1986 period. Singapore has among the highest IDD (International Direct Dial) levels in the world.[65]

Figure 6.8
Singapore's Global Connectivity, Information: Outgoing Telephone Calls



Sources: Singapore Yearbook of Statistics, 1991, op cit; Singapore Telecoms Annual Report 91 and Annual Report 93/94.

[63]/ Note that the forex market started to plateau in 1992. The shivers this development sent through the city's financial community were reminiscent of the inconsistency of the global winds of financial flow. See Elaine Koh (1992) "Easy Come, Easy Go," Singapore Business, March, pp. 20-29.

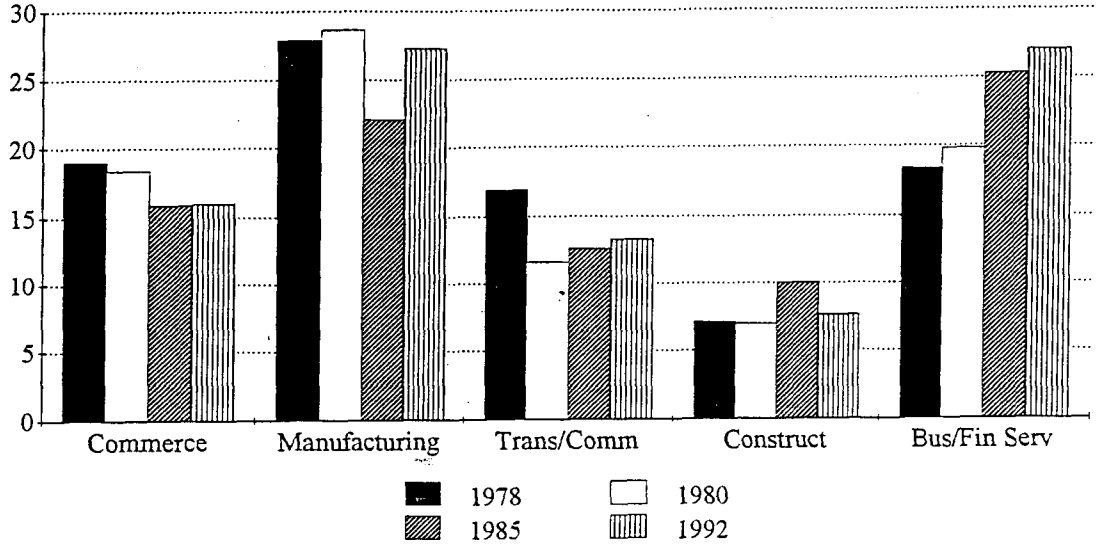
[64]/ Singapore Department of Statistics (1992) Singapore Yearbook of Statistics, 1992, page 217 (note these data exclude calls to peninsular Malaysia).

[65]/ Singapore Telecoms (1989) Annual Report, 1988/1989, page 18.

C. RECENT STRUCTURAL CHANGES

1. General Shifts

Figure 6.9
Changing Shares of GDP, Singapore (1978-1992, at 1985 Market Prices)



Source: Economic Survey of Singapore (various)

By the early 1990s, Singapore was moving away from basic manufacturing activities towards an increasing reliance on the tertiary and quaternary sectors (especially producer and financial services) more characteristic of world cities (see Figure 6.9). By 1989, the combination of the financial and business services sectors overtook manufacturing as the leading vanguard of the economy.[66] Producer services have posted impressive gains over the last few

[66]/ These areas have also become an increasingly important foci for investment. Between 1980 and 1989, financial and business services increased their share of Foreign Equity Investment from 23.1% to 39.3% and their share of local equity investment from 53.5% to 65.7%. Republic of Singapore, Department of Statistics (1992) Foreign Equity Investment in Singapore, 1980-1989, Singapore, pages 4 and 5.

years. Financial and business services rose from 14.2 % of GDP in 1970 to rival manufacturing at 26.9% of GDP by 1992 (see Figure 6.9).[67]

The Republic's increasing reliance on services exports and the generalized shift towards service activities affects and reflects its changing global niche (discussed in depth further below). Yet this move which is also part of the shift from 'streams' to 'winds' (e.g., goods to services) has other implications as well. There is much more to economic transformation than GDP shifts: transformation is a deeply geographical process affecting and reflecting grounded changes in local works and landscapes.

D. LABOUR MARKET CHANGES

Table 6.2
Employment Change by Occupation
Singapore, 1980 - 1990.

	Absolute Change in %
Professionals/Scientists	+63.0
Administration	+38.8
Sales	+ 1.2
Service	+48.0
Agriculture	-50.0
Production/Labour/Equipment Operators	-17.8
Not Classified	-13.6
Labour Force Change	+19.0

Source: ILO Annual Labour Statistics, 1989-1990, p. 440.

The specifics of labour market changes in Singapore will be addressed in Chapter VIII. For the moment, it is useful to outline the broad trends. As with the structural changes in the economy, changes in the types of jobs Singaporeans do have been striking. For example, from

[67]/ Economist Intelligence Unit (EIU) (1993) op cit, page 15.

1980 to 1990 one can note a severe decline in the grouping classified as 'operators' in Table 6.2. As the Singapore economy has changed these types of jobs, the classic NIDL production jobs, are increasingly difficult to maintain. They are being replaced by robots or immigrant labour, metamorphosing into service jobs or moving off-shore (into the Growth Triangle and elsewhere) (discussed further in Chapter VIII).

Singaporean labour is being re-positioned along with the economy. Of special concern to a number of employers with whom I spoke is the closing niche for Singapore's own shadows: the Singaporean, under-educated and semi-skilled workforce who built the economy. They can not 'keep up' on current salaries for their job types (as costs escalate in the 'global city'), their jobs are disappearing, and they do not have a niche in the new service and information-based economy.[68] The economic changes are occurring so rapidly that it is all but impossible to plan for the welfare of this group.

Singapore's labour market is also characterized by a large number of guest workers (from Malaysia, Thailand, Burma and elsewhere - see Chapter VIII). The state is concerned with the political risks of guest workers and the manner in which they may be subsidizing uneconomic aspects of the economy. The desire to limit the influx of foreign (and non-Chinese) workers has led the state to impose quotas and levies on foreign workers (depending on the sector/activity) dating back to 1982, but greatly accelerating as of late (see Chapter VIII). The foreign worker levy is an especially important element of the economy of Singapore. It

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[68]/ The shortage of skilled workers in design, finance and other producer services has led to the importation of large numbers of skilled ex-patriots to the fill the void. The dualistic nature of the foreign worker market is discussed in Chapter VIII .

represents the critical elements of Singapore's conundrum -- the awkward transition from its traditional base towards a more value-added 'advanced' service economy.

The outlines of the changing labour market in Singapore may be evinced in the experience of a company called Tomy Toys.[69] Tomy Toys grew up with modern Singapore. It was originally a joint venture between Japanese and Singaporean concerns. The latter eventually bought out their Japanese partners.

When their factory was originally being built in Singapore's Kalang Basin in the late 1960s, the mere presence of activity attracted hundreds of job-hungry applicants. At that time, the firm could be very selective about its employees. It only took people with high school certificates between the ages of 19 and 23. The company grew quickly to some 600 employees and exported to the world. Over the years, the company became very successful. It won a prestigious award from Singapore's Economic Development Board and in the early 1980s paid to take all of its 600 employees on a week's vacation to Penang in northern Malaysia. This was the firm's zenith.

By the mid to late 1980s, labour shortages became acute and began to affect production. Unable to meet the wage expectations (or needs) of its traditional work force, the firm began to hire a wider and wider range of employees. Near the end it opted for bussing in 'housewives'[70] from the suburbs to work part time (in the intervening years Singapore's population had decentralized and left the plant stranded). These workers were increasingly mixed with guest workers from Johor (about 30% of the labour force -- the maximum allowed).

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[69]/ The material in this section comes from an interview with the Managing Director of Tomy Toys in October 1992.

[70]/ Their term.

The increasing costs of acquiring a workforce, including the increasing government levies on guest workers deeply cut into the plant's margins. In 1991, only a decade from its peak, Tomy Toys closed down all production in Singapore and moved it off-shore. The Singapore office was left with a design team and the marketing and finance departments.

This then is the nub of the issues currently facing Singapore in terms of labour. Its economy is changing rapidly, it is partially de-industrializing (a novel experience), and its workforce may not be able to keep up with the move to advanced services (discussed further in Chapter VII).[71] The shifts in Singapore's global niche are reflected in structural changes, employment changes and finally in the very fabric of the landscapes of the city as it 'globalizes' still further.

E. LANDSCAPE CHANGES

The key themes in terms of land-use in Singapore as its global niche shifts are 1) a continued concentration of value and development in the CBD; 2) a gentrification of historical areas; 3) the development of new regional centres within the island space economy (and a focus on quality of life); and 4) the expansion into the Growth Triangle. In this section, I will focus on gentrification, new towns and the growing importance of 'quality of life' in the city's built environment.

[71]/ An important element of the shift to services concerns the types of services. The majority of Singapore's workforce leaving industrial jobs will not be able to find employment in 'high-end' services. Lower-level services (such as personal services, retail) have notoriously low productivity levels and so it may be that the productivity-income nexus which has been at the heart of the national model will collapse along with the economic transformation towards becoming a global city.

1. Gentrification

The landscape of Singapore is undergoing tremendous gentrification. After the wholesale destruction of much of the city's historical fabric in the 1960s and 70s there is now a boom in the redevelopment of older areas especially in ethnically distinct enclaves such as Chinatown and Kampong Glam.[72] In 1991, pre-war shophouses in Chinatown were worth over a million dollars each.[73]

Old landmarks such as the original Raffle's Hotel have been retrofitted.' The historical Raffles underwent a S$ 150 million renovation (about S$ 1 million per room)[74]. The hotel has now been physically reoriented on its lot and re-positioned on the map of global tourism. While Raffle's Long Bar sells souvenirs to the hoi poloi of tourists, the corridors of the arcades are the sites of conspicuous consumption along the lines of Louise Vitton and Gucci for an international elite.

The warrens of the Neil Road area, which once teemed with thousands of the city's poorest coolies living six to a room, are now composed of extremely expensive boutique hotels (for example, the "Inn of the Seventh Happiness"), Elvis bars and advertising agencies. The gentrified areas are the preferred locations of the small scale business services companies (which are springing up to service new market niches) and their attendant social milieux.

Clarke Quay is an old warehouse district on the Singapore River. When I first visited the area in 1991, it was a place to go to find a rarity in Singapore: a run down relic from the

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[72]/ Interview with Chief Planner, URA, October 1992.

[73]/ One large developer, Scotts Holdings owns 14 conservation shophouses which are valued at S$ 19.5 million. Business Times, 2/7/91.

[74]/ Straits Times, 03/11/92:39.

past. It is being redeveloped at a projected cost of S$ 86 million by the DBS land company. The area will include a S$ 25 million 12-minute simulated ride in which the landscapes of the city's past will be recreated and viewed from a 'bum boat' (the 'real things' have been outlawed on the city's waterways).

The push towards building a quality environment has illustrative origins. In discussions with town planners, I was intrigued to find that the target audience for the new landscape was not the people of Singapore (who tend to shun the gentrified areas) nor the over six million tourists to the island each year. The target audience is the international business technocrat, the transhumant bourgeoisie[75] of the global information economy (for whom amenities are key locational considerations). "There are very few of these people and we need to attract them to Singapore."[76] The coded representations of space in the city's (re)developed areas (and in the rather more 'exotic' hinterland) are part of the state's push to produce a space amenable to global competitiveness (i.e., driven by the global-local nexus).

2. Regional Town Centres

While the core of the city-state is being quickly made over, so too are its suburbs. The master plan for Singapore envisions the development of a number of regional town centres (each with a population of about 800,000). While there are four town centres in the official plan the first of these centres, and the furthest along, is at Tampines.

The development at Tampines is key because it represents something of the new

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[75]/ Gottmann defines these people as those "who have more than one home and more than one place in which they acquired rooted interests." - J. Gottmann (1990) Since Megalopolis: The Writings of Jean Gottmann. Baltimore: Johns Hopkins Press, p. 161.

[76]/ Interview with Chief Planner, URA, October, 1992.

Singapore.[77] It is meant as a service-based back office location for businesses (especially banks) in the CBD.[78] It is also based on offering a high level of amenity. Tampines has won global awards for new town construction and its design which emphasizes quality of life.

3. A Tropical City of Excellence

The gentrification and development of regional centres are part of the longer term plan to remake Singapore as a 'Tropical Paradise.' Urban planners in Singapore now aim at twin tracks for improving the urban fabric of the city-state. These tracks may be summarized in the dual admonishments to 'think green' (the state is establishing some 3,000 hectares of nature reserves) and to 'think blue' (by doubling, through landfills, Singapore's coastline by 2010).[79]

The landscapes of Singapore and those discussed in the preceding chapters on Johor and Batam are part of a piece. Singapore's colourful but sterile festival markets and gleaming malls are part of the same space economy as the night market in Johor Bahru or the squatters on Batam. In turn this emergent ensemble is struggling to find (or create) its 'new' niche in an evolving 'new' global economy. The contours of this economy and the city-state's niche are far from clear.

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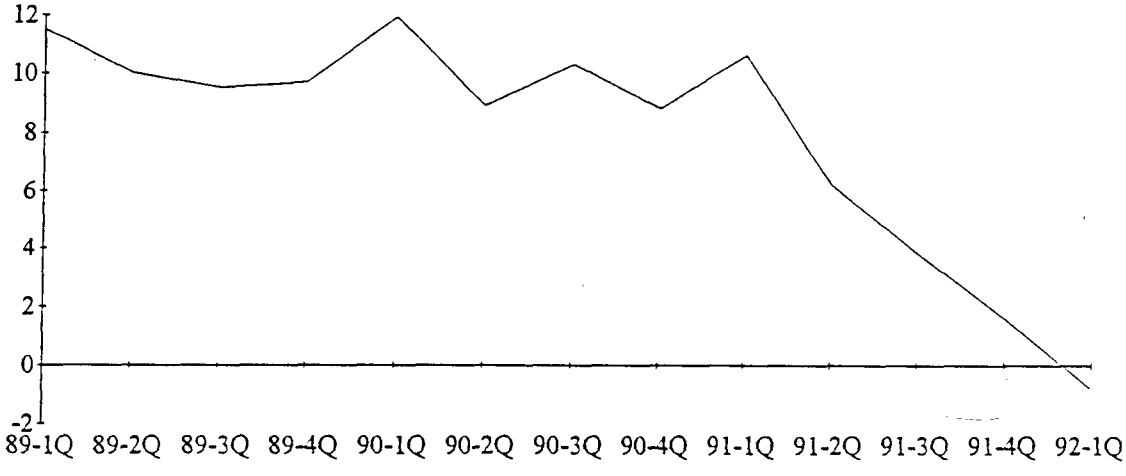
[77]/ For example, Tampines is also the site of a new 'Telepark' being built by Singapore Telecoms. - Singapore Telecoms (1994) Annual Report 1993/94, page 7.

[78]/ This a marked and telling departure from the earlier 'new towns' such as Toa Paya which were clearly and tightly linked to industrial developments.

[79]/ Interview with Chief Planner, URA, October 1992; and Far Eastern Economic Review, 17/9/91:118.

F. SINGAPORE, 1992: CORE CITY ON THE EDGE

Figure 6.10
Changes in Index of Industrial Production
1989-1992, (per cent)



Source: Economic Survey of Singapore 2Q, 1992, op cit, page 13.

In 1992, there were disturbing echoes of the crash of 1986, such as over-accumulation, an overheated land market and disquieting productivity figures.[80] The development of Singapore as a world city had pushed up wages and other costs[81] and led to social changes

[80]/ See comments of MP Dr. Wong Kwei Cheong on the similarities of the current situation with those which characterized the economy in the run-up to the 1985 recession. - Straits Times, 10/3/92:35; or US Embassy (1992) Singapore Economic Trends Report. The impetus for change arising from the disquieting data is no less important given the subsequent successes of the Singaporean economy to apparently weather the storm and maintaining high growth levels from 1993 to 1995.

[81]/ Wages jumped 9.2% in 1991 and 7.7% in the first seven months of 1992. - Straits Times 14/12/92:40. The price index for industrial properties grew by 122% from the third quarter of 1988 to the third quarter of 1992. Republic of Singapore, Urban Redevelopment Authority (1992) Singapore Private Property Price Index, Third Quarter, 1992, Singapore: URA, page 12. Note also that Singapore lost its GSP status for the US in 1989.

which made the maintenance of some activities untenable.[82] As will be outlined, the state's policy of enhancing producer, business and financial services has led to an appreciation of the Singapore currency,[83] a burgeoning over-accumulation crisis[84] and increasing costs which have hurt manufacturing[85] and lower order service activities.

In 1992, manufacturing was weakening despite high investment levels.[86] Singapore was

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[82]/ As the push to become 'A Tropical City of Excellence' demonstrates, there are important social shifts in Singapore which point toward a marginalization of smoke stack industries. Changing social values are both a source and a result of the decline of some of the traditional manufacturing and industrial base of the island. With a change in occupational structure comes changing social values in which quality of life becomes more important and industrial production (with its social and environmental costs) seems less necessary. The decline in the prestige of industry is especially witnessed in the lack of allure that manufacturing holds as a career path among the young.

The growth in education levels which has accompanied rapid development has led to a youth culture more interested in jobs as engineers, accountants or lawyers than as machine shop owners or production supervisors. The latter had been a key element of Singapore's early industrial success. (This theme was extremely evident in a small sample of ten machine-shop owners I interviewed in 1991. They all decried the impossibility of getting apprentices and that their skill base was being lost to the economy.)

The changing employment structure and social basis of life in Singapore is also bringing about a growing environmental consciousness. The young of Singapore today do not remember the squatter settlements which their parents often once lived in and as such are not as thankful for the benefits of industrialization as their parents might be. Rather, they see its costs in terms of environmental quality. The move to make Singapore 'green' and the emphasis on 'quality of life' is part of the trend to shift smoke stack industries off-shore.

[83]/ Wage increases and increasing land costs have been magnified by an appreciating currency. The Singapore dollar increased in value (in comparison to the US dollar) 37% from July 1986 to July 1992. - Economic Survey of Singapore, various editions.

The strength of the dollar, which is so deleterious to manufacturing exports, is not purely a happen-stance of national success but is also part of the government policy to provide a suitable, stable setting for a transition to financial and business services. - See Castells et al (1990) op cit, page 293-294.

[84]/ Government monetary policy involving tightly controlling the local money supply in order to limit the risks of internationalizing its own currency has led to unprecedented capital deepening in the city-state. A savings/investment gap opened up in 1985 and continues to suggest the onset of an over-accumulation episode. See Monetary Authority of Singapore (1991) Annual Report 1990/91, Singapore: MAS, page 23 for a graph of savings/investment rates. This topic is addressed in much more detail in Chapter X .

[85]/ Singapore has lost its GSP status (Generalized System of Preferences) given to developing countries. Malaysia still has it (though for how long is unsure) and Indonesia will have GSP status for some time. Due to cumulative rules of origin, goods produced by Singaporean based companies in Indonesia or Malaysia can get tariff preferences in the crucial US market.

[86]/ Heavy industry began its decline in Singapore with the levelling off of growth in the petroleum sector in the early 1980s. The chemical sector declined throughout the study period. Revenues were projected to be down S$ 1 billion in 1992 (to 17 billion). The grouping 'chemicals' includes petrochemicals. Despite the weak markets in bulk products, the speciality sectors are doing well and investments levels remain very high.

losing its competitiveness in manufacturing (output growth in manufacturing slowed from 22.7% in 1988, to 11.9% in 1990, to 2.0% in 1992).[87] The manufacturing sector experienced its first negative growth in output since the recession of 1986 in the first quarter of 1992 (see Figure 6.10).[88] The pressures facing manufacturers are best illustrated through case studies of specific firms which have been moving into service activities.

Singapore's Keppel Corporation is a conglomerate which at once typifies the Republic'c industrial past (as a major ship-builder/repairer) and the search for a new niche. The Keppel Corporation group had a 1992 combined turnover of some 1.7 billion and is the fifth largest company in Singapore.[89] In 1992, ship repairs still accounted for about 65% of its business.[90] Although business volume and profits remained strong and projections good,[91] the value of the company's stocks and the number of people employed in Singapore decreased (the latter down to 2,000 from a peak of 3,800 in the 1980s).

While the core of corporate activities remained ship-repair, the two big growth areas in the years up to 1992 were banking and land development. The Keppel Bank surpassed Tat Lee

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[87]/ Data from Economist Intelligence Unit (1993) EIU, Singapore: Country Profile, New York: EIU, page 21.
The difficulties for manufacturing, arising from the nation's lack of land and labour has been confounded by low productivity returns to capital investment in recent years. See Castells, L. Goh and R. Y-W Kwok (1990) op cit; Alwyn Young (1992) "A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore," NBER, Macroeconomics Annual, 1992, Cambridge: MIT Press, pages, 13-54; Lee Tsao Yuan (1985) "Growth Without Productivity: Singapore Manufacturing in the 1970s," Journal of Development Economics, 18, pages, 25-38. The 'productivity issue' is addressed in Chapter VIII.

[88]/ Some part of the weakness in manufacturing output has to do with sluggish markets especially in consumer electronics. - See Straits Times 30/11/92:60.

[89]/ Straits Times, 3/3/92:33

[90]/ Straits Times, 24/2/92:38.

[91]/ Business Times, 3/3/92:4 or Business Times, 13/8/92:14.

to become the Republic's fifth largest bank.[92] The banking and financial services divisions of Keppel experienced a profit growth of 37% in 1990-1991 and accounted for one-fifth of the group's pre-tax profit.[93] The push into the land market may be exemplified by the activities of Keppel Marina Development Pte. The company is involved in the development of the Nongsa Point Marina on Batam with Indonesian firm Citramas.[94] Keppel subsidiary Straits Steamship Land is one of the Growth Triangle's prime movers and land developers.[95]

The company also embarked on an aggressive campaign to market its skills throughout the region and to develop an international network of Keppel shipyards stretching from the United Arab Emirates to Madras to Subic Bay in the Philippines.[96] A new venture set up to work on infrastructure projects in the region was oversubscribed by two times on its initial offering.[97]

Another pillar of Singapore's industrial past is also moving into land development and

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[92]/ Business Times, 11/3/92:3. Note that Keppel's move into financial services was for some time blocked by former finance minister Goh Keng Swee who tried to keep industrial and financial concerns separate. "The fact that it finally won a banking license is due to the influence that the group's current chief Sim Kee Boon, a former senior civil servant, wields among top government officials." Far Eastern Economic Review 3/5/90:64. Keppel is also currently considered to have one of the most 'innovative' finance departments (Ibid).

[93]/ Business Times, 4/5/92:3.

[94]/ Fraser Roach (1991) "Keppel Corporation" Investor Report, page 9.

[95]/ Straits Steamship Land is a key player in both the large Lee Rubber development in Johor (with the Kuock group among others), the massive Bintan Resort Development (with the Salim Group. - Business Times, 4/2/91:1; Straits Times, 5/5/92:40) and a number of the gentrification projects in older industrial areas in Singapore such as Tanjung Rhu (Business Times, 8/7/92:4).

SSL is also involved in ventures further abroad, such as a S$ 75 million joint venture with Liem Seo Leong's Hong Kong firm 'First Pacific' to develop a project in Ho Chi Minh city. - Straits Times 11/2/92:34.

[96]/ Business Times, 24/2/92:1. see also Straits Times 28/1/92:58 on training in Vietnam.

[97]/ Straits Times, 4/7/92:39 and Straits Times, 23/7/92:40.

services.[98] Natsteel is an important 'semi-private' firm in Singapore. The company's founders are the same family who founded Tat Lee Bank. The company is closely tied to the government linked Development Bank of Singapore (DBS). DBS has a 19% stake in Natsteel, as well, two directors of Natsteel are executives at DBS. DBS Land is the largest Singaporean Land developer in the Growth Triangle. In Singapore, it is developing the huge Clarke Quay Project. Natsteel has also tied up with Hong Kong's Wah Chang Group to form 'ASEAN Resorts' to take on projects in the S$ 500 million range.[99] Proposed projects include all three of the Growth Triangle's nodes.

The company's 1991 Annual Report shows why diversification seems so important (though steel is still critical, providing 54% of revenues of S$ 784 million and 60% of the company's S$ 70 million pre-tax profits).[100] The company once had a 90% market share in construction steel, but this has now been cut to 70% by the incursion of cheaper imports.[101] The company has said it will not give up on steel, but will look for other markets.[102] These markets are in leisure and service activities.[103] A key sign of the change in approach was

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[98]/ A move into electronics proved unsuccessful. One electronics arm went broke. "Its processes we found to be uncompetitive against suppliers who used simpler and lower cost manufacturing methods." Business Times, 24/12/91:2. In 1991, the electronics division as a whole lost S$ 9.7 million on turnover of S$ 127 million Annual Report 1991. See also story in Far Eastern Economic Review, 28/11/91:65 on the company's transition to services.

[99]/ Fraser Roach (1991) "Natsteel" Investor Report, page 14.

[100]/ Business Times, 30/4/91:3.

[101]/ Business Times, 11/7/91:3.

[102]/ Straits Times, 3/5/91:65.

[103]/ The companies projections (made in 1990) suggested that the firms profits from leisure activities should have doubled to S$ 23 million by 1993 while the steel division's profits would stagnate at S$ 56 million. - Far Eastern Economic Review, 28/11/91:65.

Natsteel's successful bid for a new Singapore Country Club.[104] The company's S$ 131 million tender was S$ 30 million higher than that of DBS land (the next highest bidder and a not so arm's-length competitor).[105]

The story of Tomy Toys and the changing activities of Keppel and Natsteel are mirrored in numerous other manufacturing concerns. They simply can not survive in their old form in the new environment which they helped to forge. Government surveys in the manufacturing sector consistently point to price pressure as the key 'problem' affecting business expectations.[106] Prices for land and labour are escalating sharply in the new economic environment. This environment is increasingly characterized by the growth of services exports and world city functions. Certain functions can no longer be carried out in the extremely valuable and well connected core of the city-state. This is increasingly true as the core becomes more globally integrated.

The figure which must have inspired the greatest dread in Singapore's technocrats in 1992 was the slow but sure decline in GDP growth, especially in relation to Hong Kong's progress (to which so much in Singapore is compared).[107] This comparison is seen starkly in Figure 6.11 which comes from Singapore's own Economic Survey of Singapore. Singapore and Hong Kong were seen to be moving in opposite directions.

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[104]/ Note that the golf course is in Tuas, the destination of the second causeway to Malaysia on the Republic's underdeveloped west side.

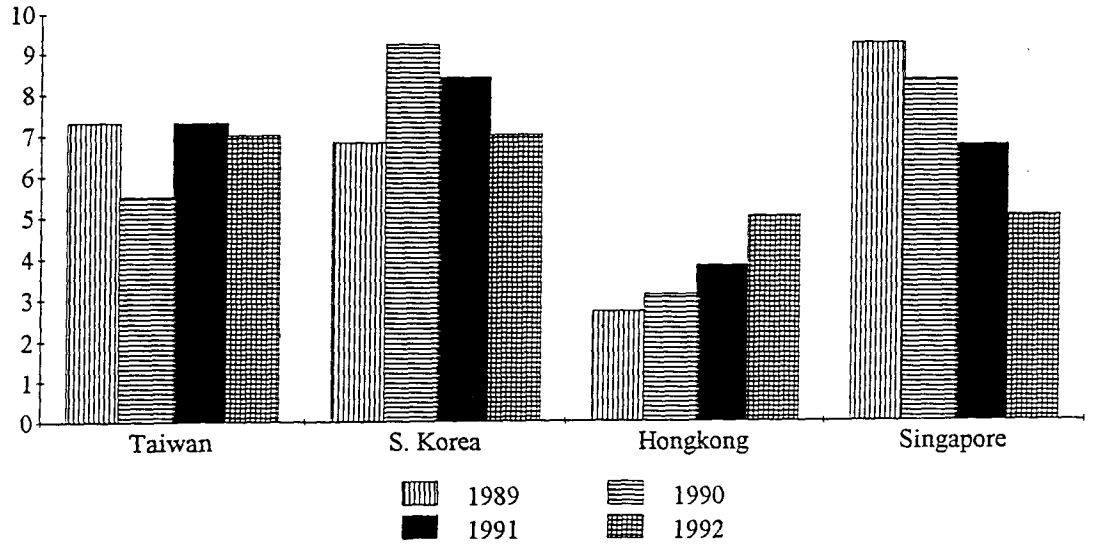
[105]/ Business Times, 19/3/91:1. The project's costs have escalated. Total cost is now set at S$ 250 million, requiring the inclusion of four partners. Natsteel is in at 45% through subsidiary Natsteel Resorts International; DBS land, through Resorts International (20%); Jurong Town Corporation (10%) and two Japanese companies -- Taiyo Company (20%) and the *Sogo Shosha* Marubeni (5%), Straits Times, 28/6/91:47.

[106]/ See for example, Economic Survey of Singapore, 1992. 1Q, page 91.

[107]/ Please note that Singapore's growth rate has taken off since 1992, reaching 10%/annum.

economic niches).

Figure 6.11
GDP Growth Rates, Asian NIEs
1988-1992



Source: Economic Survey of Singapore. 2Q, 1992, page 4.

A key difference in the two economies is Hong Kong's successful acquisition of a hinterland.[108] By 1992, Hong Kong manufacturers employed about three million workers across the border in China and only 600,000 in Hong Kong. Hong Kong companies were pouring about US$ 10 billion per year into southern China (about 12% of GDP), and the dynamism in southern China has been estimated to be adding about 2.1 % to the colony's GDP.[109] Singapore needs such a base.

[108]/ See Lee Kuan Yew's comments to this effect Straits Times, 31/3/92:2.

[109]/ Nomura Asia Focus, June 1992: 12-13.

The Growth Triangle is the element which weaves together the changes affecting Johor, the Riaus and Singapore. In the next chapters, I examine the nature of the Growth Triangle in a more holistic sense: examining inter-regional patterns of representation, labour, land and capital markets.

PART III

STATE POLICY, REGIONAL REPRESENTATION AND THE 'PRODUCTION OF FACTORS OF PRODUCTION'

Part III (Chapters VII, VIII, IX, X) examines the sources and textures of regional production. As Part II suggested, the Singapore government's geo-strategic agenda is a crucial catalyst for regional reformation. Chapter VII outlines how this agenda has many elements ranging from water supplies to the city-state's push to develop its service sector. Yet there is more to the patterns of regional reformation than can be explained by state instrumentality. Chapter VII also argues that an important gateway into interpreting the region's unfolding lies in the way it is represented: the neo-classical ideal of comparative advantage based on factor endowments.

Chapters VIII through X interrogate the factor endowment model and argue that factors of production are surprisingly (though unevenly) mobile and 'fuzzy' categories which are deeply integrated one with another and which are being socially produced in the context of the production of the region as a whole. Each Chapter argues that tensions within Singapore have spurred on transformations in the regional margins. In turn, tensions within Singapore are linked to the city-state's increasing international connectivity (globalization) and the high level of state control of markets for land, labour and capital. State control is meeting the contradiction of the policy of pushing Singapore ever more fully towards becoming a 'place of flows.' This contradiction is crucial to Singapore's current conundrum and to regional formation. It is the basis of Part IV.

CHAPTER VII

STATE MEDIATION, REGIONAL PRODUCTION AND THE REPRESENTATION OF SPACE

A. INTRODUCTION

The preceding chapters illustrated the scope, pace and heterogeneity of regional (re)formation. It is necessary to place a portrait of the region's transformation before the reader in advance of a fuller interrogation of the vectors of regional change. In this section of the dissertation the goal is to uncover the specific elements which are pushing regional integration and, through those lenses, gain a greater understanding of the production of space in the regional ensemble. The following chapters examine: 1) sources of the political will for regional integration (especially for Singapore); 2) the modelling or marketing of the region (i.e., representation); and 3) the production of factors of production, looking in turn, at labour, land and capital.

B. POLITICS, AS USUAL

Despite a proliferation of business-targeted publications arguing the contrary, the Growth Triangle as a whole is not fully "A Market Driven Response."[1] The key agent of change in all

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[1]/ For a discussion of the mix of market and political exigencies, see Ng Chee Yuen and Wang Poh Kam (1991) "The Growth Triangle with Market Driven Response?" Asia Club Papers 2 Tokyo: Asia Club.

matters having to do with the Growth Triangle is the state (in particular the government of Singapore). In all three nodes of the Growth Triangle, the governments have a great deal of power in economic and social affairs.[2] They are important actors in mediating the global-local nexus.

While I am arguing that the government of Singapore is the primary architect of the regional push, it would be inaccurate to suggest that the governments of Johor, Malaysia and Indonesia are not important to the production of new spaces in the margins as they undergo extensive globalization.

1. State Mediation: Johor and Malaysia

Unlike in the Riaus where the national government is the key player, the Johor government is much more enthused about the Growth Triangle than is the Malaysian federal government. Occasional 'irritations' aside,[3] the Johor government is very much committed to the Growth Triangle concept and may be its biggest booster -- sometimes to the displeasure of Kuala Lumpur.

As Chapter III outlined, Johor has long been linked to Singapore, and the Growth Triangle is a way of gaining more from its proximity to the island Republic. The state has decided to (re)mesh its development with that of Singapore in an effort to attract investments

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[2]/ See John Bresnan (1993) Managing Indonesia: The Modern Political Economy, New York: Columbia University Press; Michael Vatikiokis (1992) Indonesian Politics Under Suharto: Order, Development and Pressure For Change, New York: Routledge; G. Rodan (ed.) (1993) Singapore Changes Guard: Social, Political and Economic Directions in the 1990s, New York: St. Martin's Press; R.S. Milne and D.K. Mauzy (1990) Singapore: The Legacy of Lee Kuan Yew, Boulder: Westview Press; Gordon Means (1991) Malaysian Politics: The Second Generation, New York: Oxford University Press; B. Gale (1986) (ed.) Readings in Malaysian Politics, Petaling Jaya, Malyasia: Pelanduk Publications.

[3]/ These irritations include a conflict over an island which both Singapore and Johor lay claim to 'Pedra Blanca.' Tensions over Singapore's restrictions on tour buses from Johor, the ongoing failure of thousands of Singaporeans to pay parking fines from Johor, reported 'sightings' of Singaporean military personnel in the state and the localized inflation in Johor which has occurred along with the boom in visitors and investment (see Straits Times 18/1/92:22; Far Eastern Economic Review, 2/7/92:21; Straits Times, 24/5/92:13).

from global sources. There are believed to be a number of synergies involved in the state, "twinning its attractions with those of the island republic, such as first class financial and communications services and easy access to one of the world's biggest ports."[4]

The Johor State government has closely embraced the Growth Triangle concept.[5] The Growth Triangle is a core element of the 1990 Economic Plan and the 1992 Johor Operational Master Plan.[6] The *Mentri Besar* ('MB' or Chief Minister), Muhyiddin, is one of the Growth Triangle's strongest boosters.[7] The state's profitable development corporation (JSEDC) is a key player and supporter of the regional ensemble.

The central government in Kuala Lumpur seems less enamoured with the Growth Triangle. To the national government, the Growth Triangle is 'the Southern Triangle' (as opposed to the Northern Triangle around Penang and including Southern Thailand and Northern Sumatra).[8] It is the site of discomfortingly close integration of the national periphery with

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[4]/ Asian Wall Street Journal 8/12/90:6.

[5]/ The concept was officially approved by the state assembly in June of 1990. Straits Times, 25/7/90:17.

[6]/ The former document, which was produced by the Malaysian Institute for Economic Research (MIER), was largely written in 1989 and actually proposed the idea of 'twinning' Johor with Singapore before the Growth Triangle idea was initiated. MIER (1989) Johor Economic Plan, 1990-2005: Final Report, Kuala Lumpur: MIER; Johor State Economic Planning Commission (1992) Johor Operational Master Plan (Interim Technical Report: Regional Cooperation, the Growth Triangle), Johor Bahru.

[7]/ See, for example, the comments of Johor's *Mentri Besar* about comparative advantage and the Growth Triangle in the New Straits Times, 18/11/90:9. He has said that "Economic twinning with Singapore and full participation in the Johor-Singapore-Batam Growth Triangle is part of our strategy to turn Johor into the technopolis of Malaysia." New Straits Times, 18/06/92:2; and that "Johor will go it alone" (in terms of Growth Triangle participation) if need be, Straits Times, 5/12/90:19.

[8]/ A number of points are of note here. First, the Northern Triangle is closer to Malaysian PM Mahathir's heart as it is near his pet projects in the Northwest of the country (including Langkawi) where he is from. The 'Northern Triangle' also has an official 'tsar' in powerful former Finance Minister Daim. Third, in an electronic search of Malaysia's New Straits Times, I found the 'Northern Triangle' received as many citations as the Singapore-Johor-Riau Growth Triangle or 'Southern Triangle.' In Kuala Lumpur, business people and academics with whom I spoke also referred to the Southern Triangle.

Singapore[9] and is generating a new wild card in the national economic hierarchy.[10] Divergent views of the efficacy of the Growth Triangle among the Malay political elite[11] are leading to a number of tensions between the centre and the state.

After having made these points about centre-periphery tensions in Malaysia, one should also note that Malaysian Prime Minister Mahathir has spoken publicly in support of the concept of the Growth Triangle and that other officials talk up a good public line.[12] The state government of Johor has in fact been given some unique freedoms in terms of being allowed to directly negotiate development schemes with Singapore.[13] Further, although his enthusiasm for the Growth Triangle at one point got the MB in some difficulties with the national power structure, he has recently ascended the national hierarchy of the ruling UMNO party (and toned down his proclamations).[14]

The Growth Triangle and the attendant tightening of integration with Singapore are very volatile political issues in Johor and Malaysia. To date, the high levels of economic growth and profits which have accrued have subsumed the potential tensions involved in deeper

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9/ Although this fear has been denied by Malaysian PM Mahathir.- Business Times, 13/12/91:1.

10/ This hierarchy has traditionally had twin foci. It is centred on Kuala Lumpur, the capital (which far and away dominates the space economy) and Penang, a pioneer free trade area, centre of Malaysia's micro-chip industry and investment centre of the Northeast -- P.M. Mahathir's home region.

11/ For example, Malaysian Finance Minister Datuk Seri Anwar Ibrahim needed to remind his colleague, Information Minister Datuk Mohamed Rahmat, that the Cabinet had already approved the proposed second causeway between Singapore and Malaysia after Mohamed had called for its review (Mohamed had since declared his full support for the project). - New Straits Times, 16/05/92:10.

12/ For example, Malaysian Foreign Minister Rajaratnam has argued that "The triangle, the first of its kind in Southeast Asia, and for that matter in Asia, will, I believe, play an important role in shaping the future course of Pacific Ocean history." - New Straits Times, 17/06/92:2.

13/ Straits Times, 11/07/92:32.

14/ Interviews, Johor Bahru, November, 1992; and see Far Eastern Economic Review, 11/13/94:19; or Straits Times 12/9/92:18.

(re)integration with the (Chinese) city-state.[15] This said, Johor in many ways has little choice but to support the Triangle or risk losing its prime asset: close integration with Singapore[16] as the city-state turns to the Riaus. By comparison with the Malaysian case, the political ties between Singapore and Indonesia in terms of the development of the Riaus are very tight.

2. State Mediation: Indonesia

The development of the Riaus is very much driven by the ascension of the Indonesian central government. The government in Jakarta has placed a great deal of emphasis on the Riaus' development.[17] The Riau developments to date have been useful for the state to: 1) map-out the way for less regulation and a more open market in Indonesia; 2) to attract foreign firms and gain from technology transfer; 3) peg Indonesia into international circuits of capital (discussed below) and other flows; and 4) to provide profit for a Jakarta-based elite composed of President Suharto's family members and the Salim Group's Liem Sieo Leong (and his family).

The political constituency supporting the Riau development is small, but powerful. It is personified by 'super technocrat' Professor Dr. Habbibie who runs the Batam Industrial Development Agency (BIDA) and is close to Suharto.[18] The Riau political cadre is based largely in Jakarta and local ramifications are found in the lack of local power in planning and

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[15]/ It should be noted that federal opposition parties such as Tengku Razaleigh's "Spirit of '46" have seen the Growth Triangle as a political issue and have decried the 'sell out to (Chinese) Singapore.' See for example, Straits Times, 4/6/91.

[16]/ It may be of more than passing note that the front cover of the Johor Investment Guide is made up of a picture of the causeway to Singapore.

[17]/ Total investments by the Indonesian government on Batam have topped US$ 2 billion. Geok Theng Lau, G.R. Funkhouser and C. Yeoh (1992) "Marketing an Investment Region: the Case of Batam Island in the Growth Triangle," Proceedings: Academy of International Business: Southeast Asia Regional Conference, Brisbane, Australia, 21-24 June, 1992, page 9.

[18]/ Habbibie has recently ascended within the ruling Golkar party. For some, he is seen as heir apparent.

other decisions. In contrast to the Johor case, the Riau state government has little to no input into the islands' development.[19] The projects in the Riaus are very much creatures of the intermingling of Singaporean and Indonesian political agendas which are spurring on regional integration under the guise of the Growth Triangle. This fact distinguishes the developments in the Riaus from those in Johor where market forces were driving integration before the development of the Growth Triangle idea.

The manic growth which characterizes the Riaus today has been a while in coming. In the late 1970s and early 1980s, Indonesia began to spend a good deal of time and money promoting Batam (and the Riaus) to foreign investors as an investment haven.[20] Batam was made a duty-free bonded zone in 1978 and was then made a priority development area in Indonesia's Fourth Development Plan (1985-1990). The government also adopted regulations and procedures which in effect attempted to force some foreign oil companies working in the Riaus and Sumatra to use the island as a logistics base instead of Singapore. This policy was ill-timed in light of the severe drop in oil prices in the late 1980s, and the government was consequently forced to backtrack on its position. At that time, government officials could but look across the waters to the skyline and gantries of Singapore and muse about why the streams of international trade were passing them by. However, the island's isolation changed in the early 1990s with the direct involvement of the Singapore government in the development of the islands and the embrace of the Growth Triangle concept.

By the end of the study period, the Riaus had become a major growth centre. The Riaus may be seen as an example of extensive globalization *par excellence*. This globalization

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[19]/ This became clear in interviews with officials at BIDA in September 1992.

[20]/ Asian Wall Street Journal, 6/12/90:10.

process is being pushed by state mediation in providing a conducive setting for investment, in particular the role of the government of Singapore is central.

3. State Mediation: Singapore

Batam and the Riaus have become a new frontier for Singaporean capital and transnational capital based in Singapore. Singapore's Business Times newspaper captured something of this frontier perspective when it wrote in 1989,

> The investment delegation that left for Batam island one bleary Tuesday morning a fortnight ago looked nothing like the pioneers of the old Wild West.
>
> No horse and wagon loaded with possessions, no bush clearing implements, no farming utensils...romantic notions of what pioneers actually looked like aside, this ferry-full of briefcase toting, shirt and tie business men were the real thing.[21]

Few people would call Singaporean investors pioneers or risk takers and it needs to be noted that this frontier was opened up very much at the behest of the Singaporean state. Without the heavy involvement of the Singaporean government, the Growth Triangle and especially Batam, would not be what they are today.[22] For example, the key event in leading to the economic boom on Batam was the policy shift in Singapore which saw the government urging low-end industries to move their operations to Batam from Singapore.

The Singapore government's involvement in Batam (and by extension, the Growth Triangle) began, as have so many elements of Singapore's development, with former Prime Minister and current 'Senior Minister' Lee Kuan Yew. Lee and President Suharto initiated the growing ties in 1987 when they met on Batam and planted two trees at the Batam Centre

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[21]/ Walton Morais (1989) "Singapore's Pioneering Flame may yet Blaze a Growth Trail in Batam" Business Times, 5-6/8/89:2

[22]/ The Singapore government's push is being matched by unprecedented concessions by the Indonesians in terms of foreign ownership restrictions, free trade attributes and the cutting of red tape. This said, without the direct involvement of the Government of Singapore acting as a catalyst, the development in the Riaus would not be occurring with its current pace and scope.

townsite.[23] In 1989, the two met again under a banyan tree in the jungles of central Batam (beside the site of today's Batam-Indo Industrial Estate). There, the two concluded on the need to jointly develop the island.

It is clear that without the heavy involvement of the Singaporean state, the Riaus would not be undergoing the changes they are today. For example, it is the Singapore government that got the Batam development off the ground with an investment of S$ 500 million in the Batam-Indo Industrial Park and work by Singapore's Economic Development Board in recruiting investors.[24] Sumitomo Wiring, the first major tenant in the Batam-Indo Industrial Park, attributed its participation solely to the urging of the government of Singapore. Hidhiko Takeuchi, managing director of Sumitomo Electric Automotive Products has said that in regards to the decision to move to Batam, "We rely on the Singapore Government."[25]

The increasing rapprochement between Jakarta and Singapore and the beginnings of joint initiatives in the Riaus in turn caused concern and some resentment in Johor. It became apparent that relations between Johor and Singapore could be threatened by the city-state's new relationship with the Riaus. To mollify this emerging grievance and to expand the push for further regional cooperation, Singapore's then First Deputy Prime Minister, Goh Chok Tong, put forward the idea of a 'Triangle of Growth.'[26] Since that time, all arms of the Singapore government have pushed the Growth Triangle model.

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[23]/ Straits Times, 30/11/87:14. A third tree has since been added to represent Johor, but it is dwarfed by its older neighbours. The impetus for the joint initiative can be traced further back - to 1983 - and a meeting between Suharto and Lee. See Straits Times 28/12/83:8.

[24]/ An interview with an EDB official highlighted the strategy of finding firms for Batam. The EDB approach is also discussed in Singapore Report on the Growth Triangle, 18/6/92:1-2.

[25]/ Asian Wall Street Journal, 5/12/90:10. It became clear during interviews that a good number of TNCs locating on Batam were doing so at least partially to placate the Singapore government.

[26]/ Straits Times, 21/12/89:01.

The involvement of Singaporean state enterprises such as the Jurong Town Corporation (through its subsidiary Jurong Environmental Engineering) and Singapore Technologies has given credence to development projects in the Riaus and Johor.[27] As one manager (of an American firm) stated, "With companies like Singapore technologies [a Singapore government firm] participating in the project, it is easy to convince the head office to give the go ahead."[28]

The governments of Indonesia and Malaysia are also important to the shape of the region's unfolding. However, the initiative in the development of the Growth Triangle as a whole must be seen to be with Singapore. The roles of Malaysia and Indonesia are usually reactive and derivative of policy shifts in Singapore - the core of the region. The Singapore government is: 1) the creator of the Growth Triangle model; 2) directly involved in recruiting firms to move to Johor and (especially) the Riaus; and 3) is one of the major investors in Growth Triangle's margins (through GLCs).

Singapore is the driving force behind the Growth Triangle. Why has Singapore gone out of its way to help its closest competition? In the long run, I will be arguing that the Singaporean policy is extremely strategic in an economic sense. The state is particularly attuned to shifts in global economic geography and sees the need to re-orchestrate its spatial fabric and spatial context so as to further develop its niche as a world city (at the heart of the regional economy). However, for the moment I should like to begin by looking at a number of other rather more basic reasons why Singapore should so enthusiastically support the Growth Triangle and then move towards the political-economic rationales.

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[27]/ Singapore GLCs are also involved in setting up a 'high-tech' park in Johor, Straits Times 17/9/90:16; Straits Times 5/6/91:38; Straits Times 5/3/91:15. The park is undergoing telling difficulties. It is being held up by reticence in Kuala Lumpur which wants to focus on the high-tech park near Penang.

[28]/ Business Times, 23/5/90.

C. GEO-STRATEGIC ATTRACTIVENESS OF THE GROWTH TRIANGLE FOR SINGAPORE

1. Security

The government of Singapore's sense of vulnerability is a key to understanding the nation. It is the ideology of vulnerability which forged the nation and the sacrifices of its peoples. With independence in 1965, the government of Singapore needed to quickly develop a sense of unity in its disparate population. Nationalist ideology became a key project of the state. Linked to this strategy was the centrality of the nation's security and survival.

The ideology of survival is manifested in militaristic National Day festivities to the constant entreaties from PAP members to be on guard and to be wary of the nation's vulnerability. In 1993, Singapore spent the highest amount on defense among its neighbours at 45.6% of government current expenditures and almost 5% of GDP.[29] Its military expenditures are also very high in global terms.[30]

The Growth Triangle benefits Singapore in security terms in that it increases regional amity and interdependence.[31] The Singapore government would seem to have hoped that investments and technology transfer would improve its relations with neighbouring states and peoples and allow it to make the impression of trying to 'share the wealth' as it pushes towards

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[29]/ Economist Intelligence Unit (1993) Singapore: A Country Profile, 1993/94, London: EIU, page 8. Singapore also has compulsory national service for all males upon leaving high school. The common experience of national service serves to bind the nation's ethnic groups together (at least the males) and instill the sense of threat and external danger.

[30]/ Tim Huxley has noted that "Singapore is probably the most densely-defended state." Per capita defense spending is exceeded only by the US, Israel and some oil-rich Gulf states. - T. Huxley (1991) "Singapore and Malaysia: A Precarious Balance," The Pacific Review, 4 (3), pp. 204-213, pages 205-206. The Singapore defense force is also unique in the region in that it has no counter-insurgency element.

[31]/ As Lee Kuan Yew said some 30 years ago, "...half the problem of international survival is to win friends who understand and sympathize with us." Cited in Chan Heng Chee (1971) Singapore: The Politics of Survival, Singapore: Oxford University Press, page 42.

'developed country status' by early next century.[32]

Friendly engagement with neighbouring states may also serve to give a new sense of security to the population which would come from opening up perceptions of confinement in the city-state. The presence of a friendly and expanding frontier for Singapore gives a sense of growth and a psychic security for the cloistered denizens of the island (remembering that Singapore is but 42 kms by 23 kms)which should not be underestimated.

Increased security is not only meant for internal consumption, but for external eyes as well. Growing ties between Singapore and its neighbours is likely to maintain Singapore's excellent position *vis a vis* risk analysis for investors[33] and may allow Singapore more leeway in exerting influence in the region (in arenas such as ASEAN[34]). Singapore has a number of positions which could effectively be served by well maintained ASEAN ties (e.g., the development of an ASEAN free trade area).[35] At the very least, better relations with both neighbours will help to ease the major security concern of the country: water supply.

2. Water

Singaporean industry and households consume about 120m litres of water per day

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[32]/ Please note that I have omitted discussions of the utility of the Growth Triangle for forward reconnaissance and forward basing. Singapore is too small to defend its current borders by air so in the event of conflict it would need forward bases. Singapore Technologies, one of the biggest GLCs in the regional push, is the defense-industrial arm of the government. These sorts of ideas are the material of rumour mills in the region. There are frequent alleged citings of Singaporean aircraft over Malaysian or Indonesian airspace.

[33]/ Huxley cites an illuminating comment from Lee Hsien Loong to the effect that any reduction in Singapore's commitment to defend itself might erode the confidence of investors in the local economy. Huxley (1991) op cit, page 206.

[34]/ Singapore is a founding member of the Association of South East Asian Nations - ASEAN.

[35]/ During an interview, the Managing Director of ATT Asia mentioned that he had been at a conference where management guru Kenichi Ohmae had suggested that Singapore's long-run sustainability was predicated upon its ability to become the "Capital of ASEAN."

(expected to increase to 250 million by 2010).[36] Although the government has constructed a number of reservoirs, Singapore is highly dependent on external supplies of water. Johor has long supplied the bulk of the Republic's water (treated water is then sent back to Johor).[37]

The reliance on Johor is mitigated by the Riau development agreement in which Singapore is guaranteed water rights.[38] Singapore has in turn promised to ensure adequate supplies to Batam, where water shortages are the critical limiting factor to development.[39] The Growth Triangle serves to ameliorate concerns over water shortages and demonstrates the state's foresight and stewardship.

3. Shepherding the Economy

In Singapore, it is very important for the state to at least give the impression of being an efficient technocracy which is skilled in both planning and economic mapping. The ideology of the efficient bureaucrat is a key aspect of state power. Singapore has always exhibited a good deal of government intrusion into the economy -- the focus and source of state power and legitimacy. The government of Singapore has long positioned itself as the visionary and

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[36]/ Singapore Report on the Growth Triangle, 20/3/92:2 citing Singapore Public Utility Board data.

[37]/ Singapore is currently financing and managing the construction of a M$ 398 million dam near Kota Tingi, which it will transfer to the Johor government upon completion. - Straits Times, 15/2/91; See also Singapore Report on the Growth Triangle 19/4/92:4-5 for a discussion of the negotiations over water rights and the hard bargaining of Johor. The supply of water to Singapore is the second largest contributor to Johor's state income. - Straits Times, 18/12/92:22.

[38]/ In August 1990, the two parties signed an investment guarantee agreement (i.e. no nationalization etc.). At that time, Singapore also signed an agreement to jointly develop the Riau Islands (particularly Batam and Bintan) with Indonesia. In return, Singapore is to receive water rights for 100 years at a rate only slightly above that paid to Johor.

The Riau plan was originally intended to tap Bintan surplus of water. The cost of over S$ 1 billion to develop all the pipelines and filtration systems are seen as economically feasible in themselves (i.e. beyond the strategic concerns). - Singapore Report on the Growth Triangle, 19/4/92:4-5.

[39]/ Batam is short of water and will need to import water from Bintan to feed its industrial growth. Demand on Batam would not itself be enough to support this initiative, but when the Singapore demand is added, the project becomes feasible.

incorruptible force behind the explosive economic growth of the country. From this high ground, the state has managed to over-ride the rights of numerous groups in its professed aim of developing Singapore and/or to move towards 'national goals'.

In the early years, these goals were fairly clear-cut: employ and house the population. Today, the early challenges have been surpassed, and there is a search for a new vision. However, the outlines of this vision are not as clear as those of the past. They are more shadowy and subject to more contestation. They have become more ambiguous because the nation has met its basic needs, is yearning for increased pluralism and is less sure of the spectral imagery of the global economy. The Growth Triangle must be set in this miasma.

The government of Singapore was adept at navigating the older streams of global commerce whose channels were fairly clear. Today, the tumultuous yet ill-defined winds of change are less distinct in their tracks and nature. The state needs the region to assist in its economic plans and to demonstrate its creative power in order to show that it still has the vision of insightful plans -- visions of new frontiers.

The new frontiers are manifold and are bound together by a tenuous thread which winds its way through the Growth Triangle -- the government's information fixation and its globalization goals (with several steps in between). Together, the push towards an information economy, a global city and the Growth Triangle represent the creation of a troika of new frontiers critical to the state's role and the maintenance of its power. As 'the global economy' and 'information economy' are very difficult to picture, the ideological frontier is given a concrete representation by the Growth Triangle.

The new frontier of the Growth Triangle is linked to more than 'the state's' vision, it is

linked to the vision of individuals. The nature of the Singaporean polity is indelibly stamped by one man -- Lee Kuan Yew -- who was the country's enlightened despot from independence to his self-demotion to 'Senior Minister.' Lee was the one who focused the nation's vision in the past.[40] The Republic is in some sense looking to his successors to do likewise. The Growth Triangle is part of the new divination of new leaders.

4. The Growth Triangle as Personal Legacy

As noted above, one can find the roots of the Growth Triangle in the ideas of Lee Kuan Yew and his meeting with Suharto under a Banyan tree near the present site of the Batam-Indo complex. However, the focus of attention for founding the 'vision' of the Growth Triangle is located elsewhere. It is the project of the country's current leader - Goh Chok Tong.[41] Goh's political sustainability is closely linked to the success of the Growth Triangle.

Lee shifted in 1992 from being one of the Growth Triangle's biggest boosters towards emphasizing other opportunities -- especially those in China.[42] Lee's realigned vision of the regional geographic order would seem to have much to do with his prognostication of a re-emergent (and increasingly hegemonic) 'Chinese network world' in which Singapore would play a critical role. There seems little doubt of the growing influence and wealth of the ethnic 'Chinese economic circuit' and the power it will yield to the junctures of its webs. Singapore

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[40]/ See Milne and Mauzy (1990) op cit; or the controversial and provocative J. Minchin (1990) Singapore, The Ultimate Island: The Untold Story of Lee Kwan Yew: The Untold Story of Lee Kuan Yew, Sydney: Allen and Unwin.

[41]/ The Triangle was quickly became Goh's first personal mega-project -- it bears his image of where Singapore is going (economically) and carries his prestige with its success. It has been called "the brainchild of Prime Minister Goh Chok Tong" by Singapore's Business Times, 16/2/91:1. The credit for coining the concept is invariably accorded to Goh in news reports on the Triangle in Singapore.

The actual position of Goh in the regional regeneration has some nuances as Lee's son B.G. Lee is also very much involved in the actual development of various Growth Triangle projects. B.G. Lee, who actually signed the original Riau agreement, has excellent connections in Indonesia and is the Singaporean face at many openings in the region.

[42]/ Lee Kuan Yew (1992) Speeches, Sept/Oct 1992, pages 61-75.

seems transfixed by this web and its need to be a centre of Chinese capital flows (discussed in Chapter X). Operating as a key node within the networks of Chinese capital which ring the region, fits within Singapore's broader globalization strategy (echoing the ties once used by Sri Vijaya and Malacca) as the nation pursues its Next Lap.

5. Globalization

The Next Lap is the PAP policy document, prepared in 1991, which presents a blueprint for the profound changes soon to come to the island as it targets 'developed nation status' and lifts the economy into increasing levels of sophistication (by an unfixed 'Year X). While documents such as the Next Lap and The Strategic Economic Plan contain numerous references to sectoral shifts and new economic foci, it is their spatial or geographical bent which captures my eye.[43] It is intriguing how deeply spatial the new policies are: the nation's success is to be written along two central spatial axes: globalization and regionalization.[44]

Connections outside the boundaries of Singapore are fundamental to its success. As the 1991 Strategic Economic Plan puts it, Singapore may become further developed and like a "beautiful garden can be made more beautiful by integrating the distant scenery into the landscape of the garden."[45] To date, 'external connections' have been a case of the 'outside' coming 'in.' New policies are being designed to internationalize the Singapore economy -- to move Singaporean economic activity outward into foreign markets as a way of expanding

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[43]/ Republic of Singapore (1991) The Next Lap, Singapore: Times Editions Ltd; and Republic of Singapore (1991) The Strategic Economic Plan: Towards a Developed Nation. Singapore: Ministry of Trade and Industry.

[44]/ These are referred to as outer and inner globalization respectively. See Republic of Singapore, Ministry of Trade and Industry (1991) The Strategic Economic Plan: Towards a Developed Nation. Singapore: Ministry of Trade and Industry, page 44.

[45]/ Strategic Economic Plan, op cit, page 61.

indigenous capital.[46] As the Economic Committee of 1986 noted "our offshore activities will be extensions of our domestic economy."[47] This push has been called 'Singapore International' and is a major aspect of the government's current economic thinking (see Chapter X).

The Growth Triangle serves both as a testing ground for the internationalization of Singaporean firms (in particular service firms) and as an 'anchor' for transnationals. The Growth Triangle also supports the traffic volumes needed for the high infrastructure costs Singapore needs to maintain its global connectivity so crucial to its global service niche (Chapter XI).

6. Building a Global City

A regional, integrated frontier of growth is needed to create transactional densities to support higher order services (which can then capture the global winds of commerce). As Ng and Wong have argued in regards to the Singapore government's push to support the service sector,

> ... service so created must be in demand otherwise they are totally useless. For such services to flourish, the industrial and manufacturing base which they service must be broad and developed. Singapore by itself is just too small. Initially the region must be the base and if the region, and in particular those nearest (sic) Singapore industrialize and prosper, the regional centre likewise will prosper with the potential of upgrading to a global service centre.[48]

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[46]/ There was a lead-story on this topic in Far Eastern Economic Review, 23/5/91:51-62.

[47]/ Republic of Singapore, Ministry of Trade and Industry (1986) Report of the Economic Committee: The Singapore Economy: New Directions. page 13; see also p. 15 regarding need to export capital and invest like the Japanese. Note that there is also a perceived need to follow TNC customers abroad. See Minister of Trade and Industry Lee Boon Heng's comments in Straits Times, 26/11/92:40.

[48]/ Ng Chee Yuen and Wong Poh Kam (1991) "The Growth Triangle: A Market Driven Response?" Asia Club Papers, No.2, page 128.

The Growth Triangle strategy is also a way of 'drawing' services to the city-state. A number of firms have set up plants in Johor or Batam first and then sought out space and services in Singapore. (For example, Taiwanese companies planning to set up on Batam have also put in offices in Singapore. - Straits Times 30/3/92:36) This kind of demand helps to thicken and deepen the service sector's development in Singapore.

Despite the current successes in attracting corporate offices to Singapore, a main concern is how to keep these activities domiciled in the city-state.[49] As Prime Minister Goh Chok Tong has suggested, the presence of a dynamic contiguous frontier is crucial for "anchoring" higher order service jobs in Singapore.[50] The Growth Triangle permits the retention of office functions in Singapore for decentralizing basic manufacturing operations.[51]

Singapore needs to tie down regional headquarters if it is to build a broader, more secure, global presence and attain the status of an upper tier world city it so aggressively covets. The moment for such a move would seem to be ripe as all the large transnational firms I interviewed were undergoing deep restructuring and searching for new forms of spatial articulation.[52] A key trend outlined by the managers was the growth of increasingly autonomous regional headquarters within their corporate form.

Singapore's Operational Headquarters (OHQ) program is designed to attract regional head offices to the island (through tax incentives) and is a key initiative of the government.[53] The OHQ program has been very successful. Companies setting-up OHQs in Singapore include

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[49]/ Interviews with EDB planners, November 1992.

[50]/ Straits Times, 25/14/91:1.

[51]/ The maintenance of the office base is important because it is much easier to keep firms than to attract them. In a study of locational decision making processes Perry found that two thirds of new offices in the city-state arose from incremental growth. M. Perry (1991) "Promoting Corporate Control in Singapore," National University of Singapore, Department of Geography, mimeo.

[52]/ This is what fascinated so many of the interviewees with my research project. They too were grappling with the transformation of space - and wanted to talk about it.

Along these lines it is useful to mention what Hedlund has called the emergence of 'heterarchical structures' of firms. In these structures, the traditional hierarchies are dying but new centres are emerging along a wide range of criteria. This is important for regional centres in that advances in telecommunications might have rendered regional nodes less important and less valuable. G. Hedlund and D. Rolander (1990) "Action in Heterarchies: New Approaches to Managing TNCs," in C. Bartlett, Y. Doz and G. Hedlund (eds.) Managing the Global Firm, London: Routledge, pp. 15-45.

[53]/ Kuala Lumpur is increasingly targeting these same activities. It now has its own incentive program and has a more dynamic economy. Japanese firms have so far been reluctant to locate in K.L. due to the need to have *Bumiputra* involvement.

Reuters, Union Carbide, Matsushita, Hitachi, GE, Toshiba, Nixdorf, Nomura and Data General.[54] These offices control the activities of hundreds of plants in Southeast Asia and tens of thousands of employees. Singapore is striving to become the base for the high value-added jobs in these offices and to engrain its regional centrality through corporate positioning and the development of a higher order service milieu (i.e., economies of agglomeration). This milieu needs a regional base. The goal of the OHQ program is expressed by the Economic Development Board as follows,

> Singapore aims to become an important strategic node of global companies for the Asia-pacific region...we would like companies to do more than production. On the one hand, they should integrate backwards into activities such as production engineering, product design, research and development; on the other hand, they should integrate forwards into marketing, technical support, after sales services and *ultimately regional management.*(emphasis added)[55]

The OHQ example illustrates a more general theoretical theme. A number of analysts have pointed to the theoretical line between dispersion of economic activity (such as in mega-urban regions) and the development of key hinges of concentration of some service and control functions.[56] As Sassen has written, "the dispersal of economic activity brings about new requirements for centralized management and control."[57] The control jobs to which Sassen

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[54]/ This is a partial list garnered from press clippings, full list of the companies participating in the program is unavailable as the information is viewed as competitive (both for the firms and for Singapore).

[55]/ Economic Development Board (1988) op cit, page 7.

[56]/ For an examination of concentration-diffusion linkages see C. Antonelli. (1988) " The New Industrial Organization Approach and "The Emergence of the Networked Firm," in C. Antonelli (ed.) New Information Technology and Industrial Change: The Italian Case, London: Glower Academic, page 8; M. Castells (1989) The Informational City, New York: Basil Blackwell, page 336 or 343; J. Garreau (1991) Edge City: Life on the New Frontier, New York: Doubleday, page 90; T. Noyelle and A. Dutka (1988) International Trade in Business Services, Cambridge Mass.: Ballinger; , page 41; F. Webster and K. Robins (1986) Information Technology: A Luddite Analysis, Norwood, N.J.: Ablex Publishing, page 320; S. Sassen (1992) The Global City, Princeton: Princeton University Press, page 5; or M. Storper and R. Walker (1989) The Capitalist Imperative, New York: Basil Blackwell, page 75.

[57]/ S. Sassen (1991) op cit, page 5.

refers are the types of service jobs Singapore covets.[58] In this light, the push to deepen integration with the region may be seen as a strategy for establishing the city-state's credentials as a global service hub.

6. Summing-Up

The factors I have presented above are all part of the larger montage of reasons for the government to push the Growth Triangle idea. Although the boundaries between the market place and the state in Singapore are often diffuse, it must be said that it is the Singapore government which is driving (but not determining) the regional boom (this assertion is more apt for Batam and the Riaus than for Johor). Singapore is attempting to navigate national and regional economies in the light of its vision of globalization. To do this, a new space must be born.

D. CONSTRUCTING A NEW GLOBAL/REGIONAL SPACE

1. Introduction

The production of the Growth Triangle region is very much a result of the perceived needs of the Singapore state. However, it would not be wise to place the explanation for the region's development within a single frame. State policy is not the only source of the Growth Triangle. The state is a key player in the global-local nexus, but it does not control it. Thus, the strategies of the Singaporean government need to be nestled within the swirling eddies of the middle space between globalization and localization (which it reflects and affects).

An entry point for interpreting the shifting tensions between the global and the local and the role these relations have to the production of the Growth Triangle is through examining how

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[58]/ This is because these types of occupation can draw income to the island. For a general discussion of 'traded services' see T. Noyelle and A. Dutka (1988) op cit; T. Noyelle (1989) New York's Financial Markets: The Challenges of Globalization, Boulder, Colo.: Westview Press; or T. Stanbach (1981) Understanding the Service Economy, Baltimore: Johns Hopkins University Press.

the region is being marketed and defined.[59] It is important to distinguish between the Growth Triangle as an idea and as a region of change and to understand the inter-relations of these twin aspects. Through to the end of this chapter, the focus is on the 'representation' of the Growth Triangle as a differentiated global site for investment.

A useful way of envisioning the development of the Growth Triangle is as an evolving (spatial) 'product' designed to attract investment. In this general vein, Lefebvre has written,

> ...the worldwide does not abolish the local... Instances of this are the worldwide networks of communication, exchange and information. It is important to note that such newly developed networks do not eradicate from their social context those earlier ones, superimposed upon one another over the years, which constitute the various markets: local, regional, national and international markets; the market in commodities, the money or capital market, the labour market, and the market in works, symbols and signs; and lastly -- the most recently created -- the market in spaces themselves.[60]

Although the speciality of the Growth Triangle (e.g., petrochemicals, tourism, consumer electronics or computer peripherals) is still the matter of some important questioning,[61] the 'packaging' of the region is in place: it is based on the idea of comparative advantage. The Growth Triangle concept is a spatial representation of neo-classical ideals about regional integration and global competitiveness.

In fact, the Growth Triangle is but one of a number of transnational regional complexes springing up throughout Asia. The formation of 'growth' hexagons, polyhedrons and circles in

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[59]/ As Massey has noted, it is not so much the authenticity of regional definition (in her argument - 'local') but, "what is at issue is the understanding of - the politics of definition of - a particular envelope of space-time." D. Massey (1993) Space, Place and Gender, Cambridge: Polity Press, page 9.

[60]/ Henri Lefebvre (1991) The Production of Space Cambridge, Mass.: Blackwell, page 86.

[61]/ The lack of a niche may be critical flaw for the regional formation as a whole. Regional production is divided between petro-chemicals, consumer electronics and computers. No clear hegemonic product line has emerged - unlike in the Penang region where semi-conductors are clearly the leaders.

places ranging from the Sea of Japan to the Mekong River to the Sulu Sea is a trend the Growth Triangle both initiated and responds to (i.e., the presented competition). 'Supra-regions,' integrating parts of national economies and mixing different production capacities, are an emergent paradigm of growth and global competitiveness.[62] In the manic quest to keep momentum in the 'Asian boom,' the paradigm quickly becomes the reality.

Theoretically the supra-regions allow for a range of costs and production attributes in close proximity to one another. The range is believed to be important because it increases regional scope. The multinational regional economy as a whole can offer the potential for attaining the elusive and somewhat paradoxical goal of combining flexibility and specialization as no one polity governs the entire production chain.

After its initiation, the Growth Triangle idea caught the imagination of those interested in the possibility of extended ASEAN co-operation,[63] multilateral institutions like the Asian Development Bank, the regional and global media and corporate communities. The Growth Triangle has been a featured cover story in the Far Eastern Economic Review and the Asian

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[62]/ For an example of the popularization of these complexes see the Asia Inc., series on "Asia's New Growth Circles," Asia Inc., (2), 11, 12, 13.

The drive to develop new production and distribution complexes is leading to a number of transborder regional economic complexes which might generally be termed 'triangulations.' In Asia, some suggested triangles include: 1) Penang, Medan, Southern Thailand; 2) a Thailand, Indo-China, Burma grouping; 3) a Philippines, Sabah-Sarawak, Indonesia grouping; 4) the Mekong river quadrangle; 5) the most intriguing, Taiwan, Hongkong, Fujian; 6) an emergent China, South Korea, Japan group (Sea of Japan); 7) the non-triangular, but important Hong Kong-Guangdong corridor; 8) the mooted massive development of the Tumen Delta.

Transnational regional complexes have great competitive potential because: 1) they allow for the integration of different production regimes, highlighting potential comparative advantages; 2) they increase market size and diversity, especially in terms of labour and resource markets (and thus competition among suppliers); 3) they allow investors to take advantage of differing political regulations and policies to maximize economic return by locating specific activities in the most auspicious niche; 4) ethnic or historical ties may make it easier to develop relations of trust and understanding with new partners (i.e. fewer cultural surprises); and 5) all of the above can be achieved within a reasonably limited area.

[63]/ This link has been explicitly made by MB Muhyiddin (Straits Times, 6/19/90:1).

Wall Street Journal as well as getting approving nods from groups of investors such as Japan's powerful *Keidanren.*[64]

The Growth Triangle has particular importance as a symbol of ASEAN integration. It represents something of a potential breakthrough for ASEAN trade relations. Despite the organization's political ties, economic co-operation has long been more a matter of hope than action. Potential complementarities and rationalizations of production would seem to make sense for the region (of some 300 million people) undergoing rapid industrialization but have usually been submerged in individual pushes for development and underlying traditional animosities.

Singapore is the core of intra-ASEAN trade (about 47% of intra-ASEAN trade moves through Singapore) and its ability to come to co-operative agreements with its neighbours is seen by many as a key to the fruition of the economic potentials of ASEAN as a grouping. Thus, the Growth Triangle is seen by many as an introductory step in the creation of a regional trading block in Southeast Asia which will be positioned within a global system of blocks.

The Triangle has been jointly marketed in multilateral trade missions, involving its three members, to Japan and the EC.[65] It is a rare occasion to come across a government economic document of the 1990s from the Riaus, Johor or Singapore that does not feature the Growth Triangle. The Growth Triangle as a concept is producing a perceptual region, reconstituting the way each of its elements and their interdependencies are seen. For example, the boundaries

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[64]/ Kazuo Nukazawa, *Keidanren* Managing Director has stated that "The Growth Triangle is a unique concept that will facilitate further co-operation and promote direct foreign investment." Business Times, 26/2/91:23.

[65]/ An article in the Institutional Investor (April 91:57) notes that a Decembre 'road show' promoting the regional complex attracted crowds of 750 in Tokyo and 400 in Osaka. See also a Straits Times, article, "Global Strategies Conference 1990, in which the "hard sales pitch on the Growth Triangle" by Singapore Ministers is discussed. (6/6/90:40) This said, joint promotion missions have generally been bilateral between Singapore-Johor and/or Singapore/Riaus. - Straits Times, 17/11/90:48. See also, Malaysian Trade Minister Rafidah's comments on the need to jointly market the Growth Triangle. Straits Times, 30/09/92:40.

separating the nations are re-positioned from being limitations to growth and interchange to being sources of growth.[66] It is the national borders which highlight and facilitate the possibilities of comparative advantage, which when integrated into a market system are presumed to yield competitive advantage for firms working in the region as a unit (thus attracting investment). Yet this difference must still be within the ambit of the generalized economic system of connected market places. This is the nub of the Growth Triangle offering, difference and proximity within existing circuits of commerce.[67]

The Growth Triangle as an idea is set to entice global and regional investments; the representation of the region is central to such a purpose. For example, the region, as 'the southern tip of Asia,' is to be re-positioned as a global tourist centre in joint promotion efforts emphasizing the mix of attributes the region has to offer global tourists. Asad Shiraz of Singapore Tourist Promotion Board has argued that the region's attractiveness to international tourists is in its diversity, "In Singapore they can enjoy everything that a modern city can provide, in Johor Bahru, it will be the rustic charm of nearby fishing villages and other attractions and in Batam they can enjoy the sea and the beaches."[68]

The industrial aspects of the melding of the three areas are based on the mix of factor endowments and resultant costs. The region has been presented to investors as having a neat descending hierarchy of costs: 1) Singapore; 2) Johor and 3) Batam. As outlined below, the

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[66]/ For example, through facilitating differential wage rates and presenting different tariff/tax structures.

[67]/ Proximity to Singapore was the first (for Johor) and second (for Batam) reason for investing into the Growth triangle's margins as found in a survey by the Singapore Manufacturing Association. - Singapore Manufacturing Association (1992) "SMA Survey Report on the Johor-Singapore-Riau Growth Triangle," Singapore: SMA, page 2.

[68]/ New Straits Times, 11/03/92:11. Visions of the future see the Growth Triangle as the 'Caribbean of the East'! - Also a term coined by Singapore PM Goh Chok Tong, see Straits Times, 11/7/90.

factor endowments of the three nodes are something of a mirage, though the mirage would seem to be pleasing the investor's gaze.

Almost everyone I interviewed (in business and government) noted how the idea made such good sense. It is the strength of the idea which is pushed at the expense of the very real limitations and contingencies on the ground. In the Growth Triangle there are profound tensions between the three participants over the fruits of cooperation.

A way around the potential tensions inherent in the regional reformation is through the differing representation of what the Triangle means in each of its corners. The vagueness of the Growth Triangle concept in terms of its actual dimensions (shadowiness?) and the roles of the three areas are keys to its success.[69]

2. Vagueness as Forte

There are no trilateral agreements framing the specific outlines of the Growth Triangle.[70] Only two formal documents have been concluded which relate to the Growth Triangle, both are between Singapore and Indonesia.[71] The Riau development agreement (which includes the crucial access to water rights) is far and away the most binding document concerning Growth

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[69]/ The naming of the entity is also not without its nuances. While the Growth Triangle is the main Singaporean designation, the Indonesians have used 'Sijori' or 'Nusa Tiga' (Tiga may be translated as 'three' and Nusa means island or homeland). In Malaysia, the term Southern Triangle is often used in contrast to the 'northern triangle' which is keyed on Penang (and includes Aceh and southern Thailand).

[70]/ Though there have been sporadic calls for such a formalization. Johor has perhaps been the strongest advocate of a tripartite agreement (see Straits Times, 7/2/91:2). Johor MB Tan Sri Muhyiddin, has said that there should be a trilateral agreement among the three partners to formalise the co-operation. "Once there is a formal arrangement, we (Johor) will have a clear picture of what we can do to achieve our objective." (New Straits Times, 21/12/91:11). This move is being resisted by Singapore.

Singapore's Goh Chock Tong responded by suggesting a bilateral Memorandum of Understanding (MOU) between Singapore and Johor (see New Straits Times, 6/3/91:2) and B.G. Lee has spoken against a trilateral committee (see Straits Times, 29/8/90:23).

[71]/ The development of Batam is overseen by a joint committee of ministers from both Indonesia and Singapore. - See Far Eastern Economic Review, 03/01/91:35.

Triangle relations. There are some important reasons for the lack of formalization of the Growth Triangle.

The lack of formalization is, in part, because the Growth Triangle very clearly means different things to each of the participants. In many ways the strength of the Growth Triangle lies in the fact that it can mean 'all things to all sides.' Each party may interpret the nature of the grouping and its individual role in its own way. Take the case of Batam Island. The Indonesian government s sees Batam as Indonesia's 'gateway.'[72] This gateway is seen as having three aspects: 1) it will be a conduit to the rest of Asia (because of its physical location); 2) it will be at the vanguard of new ways of doing business in Indonesia (i.e., less regulation, more foreign ownership); and it will be a window on high-technology production. To the Singaporeans, Batam is a location of cheap labour (or, in the more careful official terminology -- "less skilled" labour) and cheap land: a vent for the economy. To the Johoreans, Batam is a competitor at the low end of production activities, in terms of recreational amenities and in the high tech quest as Johor too strives for 'technopolis' status.

As each government sees the roles of the individual nodes differently in the mix so to are their visions of the totality different. Documents from Johor place the base of the triangle as encompassing Johor and the Riaus are the lower point. Indonesian documents invariably show the opposite. Such an observation may seem to point to a rather slight distinction. However, within the region subtleties of representation are important.[73] The vagueness of the outlines of the Growth Triangle is necessitated by the intense political tensions within the region particularly in regards to ethnicity, national sovereignty and security. In each of these arenas

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[72]/ This is the sub-title of the Investment Guide to Batam.

[73]/ In an interview with a key planner in Johor he noted that he had not dealt much with the Indonesians (i.e. joint planning) but that he had discussed with them the orientation of their map ("they have got it wrong").

there is a constant danger of volatility, volatility which has tended to be submerged in the growth mania and ill-defined repercussions of the development of the Triangle but which may well bring the concept down as rapidly as it has ascended. This eventuality seems all the more likely given the tremendous imbalance between the regional players.

3. Interrogating the Regional Geometry.

Regional relations certainly do not represent a triangle in any sense that Euclid might have known. On closer examination the geometry of the concept becomes not only increasingly fuzzy but also deeply flawed. The Growth Triangle is certainly not an equilateral one. Singapore is far and away the dominant player. At present, there is almost no interaction between the Riaus and Johor.[74] It would be more accurate to call the Triangle a growth corridor.[75] The head of the JSEDC has suggested that the supposition of the three way nexus is really but a Singaporean "marketing gimmick."[76]

4. Summing-up: The Growth Triangle as an Idea

I bring forward the rather semantic observations about the perceptions of the 'idea' of the Growth Triangle because they re-affirm a key point. There is a very important difference between the "Growth Triangle" as a representation of relations and the Growth Triangle as a region undergoing change.

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[74]/ The exception which proves the rule in this case is the joint venture to develop Malaysia's Gunung Ledang Hill Resort. The US$ 100 million project will involve companies from all three nodes. - see Straits Times, 5/3/91:38.

Even at national scales the trade level is very slight. Indonesia accounts for only about 1% of Malaysia's official trade volume (Singapore accounts for 18.9%). - Johor Operational Master Plan, 2-9.

One should not surmise that there is no political amity between Singapore's neighbours. Johor did send a delegation from JSEDC to Batam in 1990. - Business Times, 25/5/90:26. Further, Johor Bahru (the capital of Johor province) and Pekanbaru (the capital of Riau province) have signed a sister city agreement. However, the links between these two points are very tenuous. There is also a move a foot to make Malay the official language of the region (and a language centre has been set up in Pekanbaru).

[75]/ Sree Kumar, Institute of South East Asian Studies, Singapore, personal communication.

[76]/ Ali Hashim, Head of JSEDC, quoted in S. Jayasankaran (1992) "A Bona Fide Success Story," Malaysian Business, January, pages 16-31, page 17.

The vagueness of the Growth Triangle model can exist because the concept as a whole is underpinned by the 'invisible hand.' [77] The Growth Triangle as an idea makes ineluctable sense within the context of the regionally (and increasingly globally) hegemonic discourse of neo-classical economics.[78] Comparative advantage is perhaps the key aspect of the international dimensions of neo-classicism. The Growth Triangle concept is a spatial representation of neo-classical ideals about regional integration and global competitiveness. The spatial abstraction of the Growth Triangle is the representation of that logic - the faith in the benefits of integration based on loosely defined factor endowments.[79]

D. MARKETING THE MIX AND MIXING THE MARKETS

1. The Growth Triangle as Mythical Investment Space

Despite its vagueness, the spatial conceptualization of the Growth Triangle as a constellation of comparative advantages is an integral element and medium for regional restructuring. Each of the Triangle's three nodes is seen to have specific comparative advantages. In each case the presence or absence of local resources is held to affect the node's role in the regional totality. This argument turns on the concept of factor endowments (the availability of land, labour and capital). It is argued that each node should move toward areas where its factor endowment is strongest. SIngapore has the capital and skills, Johor has land and semi-skilled labour and the Riaus have access to a large reservoir of labour in Indonesia as a whole.

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[77]/ The invisible hand of market forces will direct each nation's involvement. As JSEDC chief Ali Hashim has put it. "Like water, this kind of cooperation will find its own level." - Business Times, 5/2/90:26.

[78]/ See the thoughts of R. Martin (1994) "The End of Geography?" in S. Corbridge, R. Martin and N. Thrift (eds.) Money, Power and Space, Cambridge Mass.: Blackwell, pp. 253-278, page 270.

[79]/ The Growth Triangle has been framed as key to "enabling the subregions to exploit their different factor endowments and existing economic strengths." - Johor Operational Master Plan, 1992:1-2.

2. Considering Factor Endowments

The neo-classical model as the fundamental construct drawing investment to the region is alluring; yet also illusive. The presence of (potential) comparative advantage is but one (important) element explaining the profile of the region's production. It needs consideration but can not be seen as the sole explication.

I am suggesting that the standard model based on 'factors of production' does not provide enough explanatory power and indeed subsumes too many of the critical nuances and trends in the region's ongoing development (such as the geopolitical impetus outlined above or the spatialities of regional reformation). Having put these misgivings on the table (however scantly), I believe that it is still useful and important to work towards and develop these criticisms; to utilize the factor endowment model as a basis from which to illuminate other ways of seeing things and to provide an *entre* for the ensuing discussions of circulation and information.

A key aspect of the production of space must surely be the 'production of factors of production.'[80] Factor endowments exist in a reflexive relationship with social matrices. As Schoenberger has written:

> ....comparative advantage must be understood as a historically created phenomenon, not a natural attribute of a given place.[81]

Storper and Walker would seem to concur in writing,

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[80]/ This theme is strongly developed by M. Douglass (1991) "Transnational Capital and the Social Construction of Comparative Advantage in Southeast Asia," Southeast Asian Journal of Social Sciences, 19 (1&2), pp. 14-43.

See also M. Porter (1990) The Competitive Advantage of Nations, New York: The Free Press, page 19; for a different take on the same theme see also M. Storper (1990) "Industrialization and the Regional Question in the Third World: Lessons from Post-Imperialism; Prospects for Post-Fordism," International Journal of Urban and Regional Research, 14 (3), pages 423-444, page 436; or M. Storper and R. Walker (1989) The Capitalist Imperative, New York: Basil Blackwell, throughout.

[81]/ E. Schoenberger (1989) "New Models of Regional Change," in R. Peet and N. Thrift (eds.) New Models in Geography, Winchester Mass.: Unwin-Hyman, pp. 115-141, page 116.

> Contrary to Weberian location theory, industries are capable of generating their own conditions of growth in place, by making factors of production come to them or causing factor supplies to come into being where they did not exist before.[82]

I will turn to the main factors of production one at a time in the following chapters to examine the manner in which they are being produced along with the development of the regional ensemble (along lines strikingly similar to the represented dimensions). I will also argue that the categories of labour, land and capital need to be unbounded conceptually and spatially. At all stages, it needs to be remembered that the attractiveness of Johor and the Riaus is to be found in their differences in comparison (and proximity) to Singapore. Further, it is the tensions within the global-local nexus as mediated through Singapore which is the key catalyst of the production of new landscapes and livelihoods in Johor and the Riaus.

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[82]/ Storper and Walker (1989) op cit, page 71.

CHAPTER VIII.

COMPARATIVE ADVANTAGE AND LABOUR: REWORKING THE REGION

A. INTRODUCTION

It is critical that any argument which leads to an emphasis on circulation should not omit or bypass the centrality of the labour process. This has long been a criticism of Wallerstein and Frank *et al* who are often called the 'Market Marxists' because of their emphasis on market relations and interchange (circulation broadly) rather than specific relations of production.[1]

While I will emphasize the role of circulation, market formation and spatial integration in the development of the region, the labour process needs to be a central element of interpretation.[2] The labour process is not 'aspatial.' This is so for at least two reasons. First,

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[1]/ See D. Slater (1987) "On Development Theory and the Warren Thesis: Arguments Against the Predominance of Economism," Society and Space, 5, pp. 263-282; S. Corbridge (1989) "Marxism, Post-Marxism and the Geography of Development," in Peet and Thrift (eds.), New Models in Geography, Winchester, Mass.: Unwin-Hyman, pages 224 - 248; A.G. Frank (1984) Critique and Anti-Critique: Essays on Dependence and Reformism, New York: Praeger; I. Wallerstein (1980) The World System II: Mercantilism and the Consolidation of the European World Economy, 1600-1750, New York: Academic Press.

[2]/ I do not mean to suggest that I follow the classic labour theory of value. Rather, I would argue that this value is also partially produced in exchange and that the spaciality of the labour process is key. I would also not follow many down the path which might lead from this suggestion -- location models based on labour. While I applaud the recent spate of specific studies (keyed by Massey, 1984) this approach generated (into sectoral and locational specifics), my intent is to push the 'spatial angle' even further and widen the basis of analysis. Labour costs are but a part of the cost structure of a firm (often a small part). A number of interviewees told me that although labour costs were very high in Singapore -- total costs were not high. This said, the labour process and its social structurations are still fundamental to the spatialization of economic activity. See, D. Massey (1984) Spatial Divisions of Labour, London: MacMillan; or N. Smith (1989) "Uneven Development and Location Theory," in R. Peet and N. Thrift (eds.) op cit, pages 142-163.

labour is a basic human act whereby we transform our worlds and thereby ourselves. It is the work of individuals which builds the region. The Chinese planters of early Johor were more than just aspects of the emerging regional space-economy. They were building it -- through labour. Labour as an abstract concept needs correction. Labour is, after all, people. People exert agency (such as migration) which is central to the production of the region, and their fate should be of more than passing econometric concern. Second, the search for surplus value through labour exploitation in 'peripheral' areas is a key driving force in the permeation of formerly remote areas[3] (e.g., extensive globalization/mega-urbanization).

It is, therefore, important to situate labour within a spatial frame. This frame is an evolving one. The Growth Triangle reflects this evolutionary process. It is both a result and a source of deep changes in regional labour markets and thus the opportunities, work and lives of the region's inhabitants. The regional labour market is much more dynamic, fluid and nuanced than would be suggested by a focus on mere numeracy.

1. Key Themes

The regional labour market illustrates themes which will become the pattern for the discussion of factor endowments as a whole. First, changes in Singapore must be seen to lie at the base of regional transformation and the 'repositioning' of various factors of production in Johor and Batam -- including labour. It is largely the stresses in the Singapore labour market which are bringing new opportunities and constraints to the workers in Johor and the Riaus. Singapore's restructuring is closely linked to its changing global niche. It is the tensions

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Divisions of Labour, London: MacMillan; or N. Smith (1989) "Uneven Development and Location Theory," in R. Peet and N. Thrift (eds.) op cit, pages 142-163.

[3]/ To take this further, economic integration is not only implicated in capturing new and different labour markets, but also in creating and sustaining difference. As Sassen has written, "the dispersion of economic activity has contributed to the reproduction of structurally differentiated labour supplies and labour markets in this otherwise homogenized economic space." S. Sassen (1991) The Global City, Princeton: Princeton University Press, page 31.

underpin regional (and factoral) production. Second, the regional labour market is composed (as are most) of innumerable sub-markets which interweave, overlap and conflict in important ways. These markets and their viscosity must be understood if one is to come to terms with the changes in the region. Third, the development of regional labour markets are premised on differentiation (i.e., especially between Singapore and Johor and the Riaus). Fourth, the boundaries with which we circumscribe factors of production, such as labour, need to be re-considered: it is the interdependency of the factorial melange (e.g., the shadow realms between constructs such as labour and capital) which is key. Fifth, and most importantly, an examination of the mix of factors of production in the Growth Triangle illustrates how factor 'endowments' may be socially produced. 'Factor endowments' are being produced along with the region. They are not simply lying in wait for activation. In turn, the social production of regional factor allotments is being driven by Singapore's shifting global niche and the way the region is represented to potential investors.

B. SHADES OF SINGAPORE'S LABOUR MARKET

1. "The World's Most Productive Workforce"

A key part of the economic essence of Singapore revolves around the productivity of its labour force. As it has virtually no natural resources (save location), the island is extremely dependent on the labours of its population. This is an apparently fortunate dependency in that the labour force is famously productive and stable. As Singapore's government is very fond of publicizing, workers in Singapore have for some time been ranked near the top, globally, in terms of productivity growth by various research agencies.[4]

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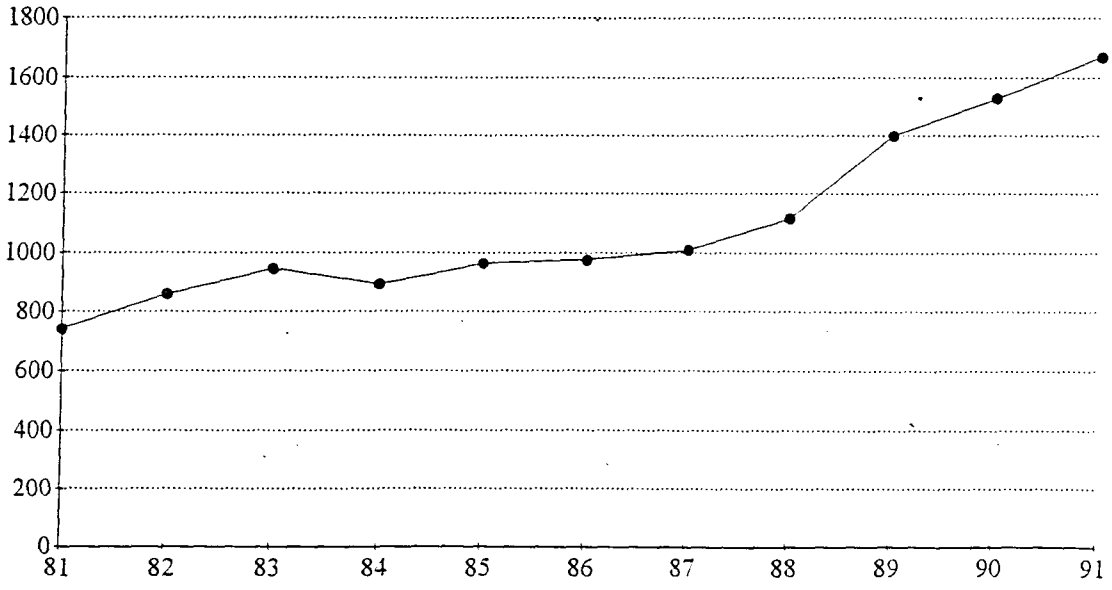
[4]/ For example, EMF Foundation (1993) World Competitiveness Report, Geneva: EMF Foundation.

2. Labour-Management Relations: Singapore's Corporatism

Singapore's labour productivity is crucial to the nation's identity and statist ideology. Singaporean class relations are characterized by an extreme form of corporatism. The state has insinuated itself into labour-management bargaining.[5] This policy has allowed the government to encourage increases in wages as part of its policy of moving the economy out of labour intensive activities and to encourage growing investments in capital goods.

Figure 8.1
Singapore: Real Take Home Wages, 1980-1991



Source: Yearbook of Statistics, Singapore 1992, page 64.

[5]/ See for example Devan Nair (1982) Not by Bread Alone, Singapore: National Trade Union Council; Chew Soon Peng and Rosalind Chew (1992) The Singapore Worker: A Profile, New York: Oxford University Press; F. Deyo (1981) Dependent Development and Industrial Order: An Asian Case Study, New York: Praeger or F. Deyo (1989) Beneath the Miracle, Berkeley: University of California Press. An illustration of the links between government and labour may be found in the fact that one of the two deputy Prime Ministers, Ong Teng Cheong, is also National Trade Union Council General Secretary.

The government of Singapore has managed to institute a kind of hybrid (internationally articulated) Fordism and position itself as a guiding (and not so invisible) hand for wage levels (derived 'scientifically' from productivity numbers produced by the National Productivity Board). The Singapore state presents the government guided wage-productivity linkage as the key to the nation's successes. Thus, any attack on wage structures would be against the nation rather than the employer *per se*. The generally increasing wage levels (see Figure 8.1) and government involvement in bargaining have short-circuited labour-capital antagonisms so it appears that the avoidance of labour militancy is not a direct reason for moving manufacturing enterprises off-shore.

The pervasiveness of the corporatist approach to labour relations has removed the union movement from any real form of direct action. Singapore has had but one strike since 1978. The lack of overt labour strife has been the result of increases in real incomes, rapidly improving social benefits (ranging from social housing to health care), close social controls generally and an avowedly spatial perspective in framing the labour process.

3. Class Consciousness: Spatial Apprehension

Deyo and others have emphasized the extensive social control needed to carry out successful 'dependent industrialization' and demonstrated the importance of control to the Singapore case explicitly.[6] I do not wish to reconsider the validity of Deyo's model at this point. Rather, it is useful at present to consider the deep spatial bent which runs through the positioning of labour-management relations on the island and its links to social control (and eventually the Growth Triangle).

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[6]/ See F. Deyo (1989) op cit; or (1981) op cit.

Representations of the global spaces of competition were used very early on in Singapore as a way of forging national identity and quelling labour unrest.[7] The government has sought to instill a global/competitive vision in the Singaporean worker. Lee Kuan Yew has said,

> One reason we don't have many industrial disputes is because our unions know that the opponent or adversary is not the boss...It's some other factory some place else that's manufacturing that product and if you can't match the quality you're out.[8]

Lee's words remind one of the way 'globalization' may be seen as an ideological tool and also serve to illustrate the importance of the representation of space in terms of the social relations of production. Singapore's labour has long been positioned by the state on a global stage. It is now also increasingly set in a more immediate regional context.

The development of the Growth Triangle is a very effective method of keeping a lid on production costs and unrest in Singapore itself. The Growth Triangle presents a concrete example of the important symbolic 'other' workplace. Highly visible production sites in Johor and the Riaus bring a more immediate threat to worker's jobs.[9] (At the same time, the alternative leisure and recreation sites of the Triangle allow for the venting of frustrations with the both close quarters in Singapore itself and the rigours of Taylorized production.)

The need to increase the spatial ambit of the Singaporean labour market has practical

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[7]/ At the time of its independence, Singapore was seen as a labour hotbed with strong labour movements and virtual insurrection at times. Some 400,000 labour days of work were lost to job actions in 1961. (see Chapter VI)

[8]/ Quoted by Patrick Daniel, "PM Praises Singapore's Trade Unions," Straits Times, 8/11/88 - cited in Ralph Bello and Stephanie Rosenfeld (1989) Dragons in Distress. Toronto: Penguin Books, page 306.

[9]/ The linkages between the Growth Triangle and direct competition have been explicitly drawn. See "Produce New Breed of Worker PM Tells Unions," Straits Times, 25/4/91:1; The government linked National Trade Union Council has supported the development of the Growth Triangle. - Straits Times, 26/4/91:1.

as well as symbolic roots. Singapore is facing important constraints in terms of its overall productivity just at the time its need to maintain productivity increases is also growing.

4. The Productivity Imperative

Recently, a number of developments have emerged which are leading the government of Singapore to call for even greater levels of production from the workers and for changes in what workers do. For the moment, two come to the forefront.

Singapore's labour force is aging and unprecedented numbers are coming to retirement age. "From 34 workers per aged person in 1947, the ratio fell to 15:1 in 1980, 7:1 in 1989, and is projected to be 3:1 by 2030."[10] This large scale demographic change provides an urgency to the government's restructuring goals and to what it needs to eke out of each of its workers. The need to extract more value-addition to support the aging labour force is magnified by Singapore's small size and dependence on foreign investment.

Singapore's international success has been predicated on overall productivity levels in comparison with other potential sites of production. Singapore had something of an early spatial monopoly in the NIDL because of its early start and excellent transport and communication facilities. This advantage is declining with improving circulatory capacity throughout Asia.[11] Further, as certain aspects of productivity are relatively easy to mimic at lower cost locations (e.g., in newly 'accessible' areas such as China), the city-state's international lead may be diminishing. This weakness is especially true in terms of the all important balance

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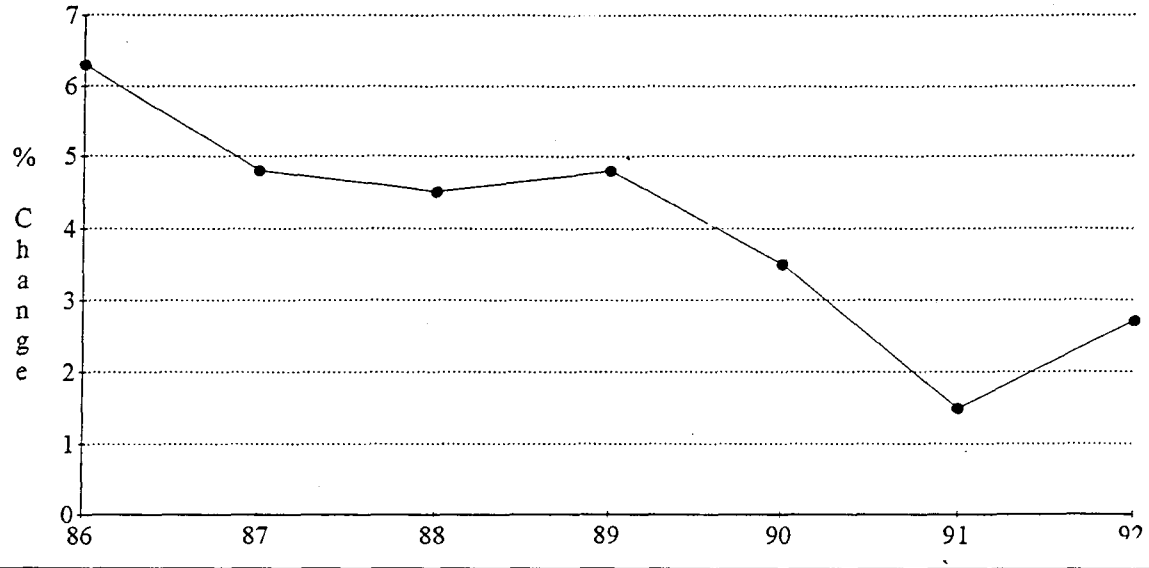
[10]/ Economist Intelligence Unit (1991) Singapore Country Profile 1990-91, New York: EIU, page 7.

[11]/ This fact lies at the base of Singapore's massive investments in infrastructure as a way of keeping some of its spatial advantage. Singapore's infrastructure was the most frequently given reason for maintaining plants in Singapore. However, as numerous interviewees said, much of Singapore's hardware advantage (e.g. port) can be purchased by competitors. Further, the allure of attaining surplus value by tapping remote labour pools is leading to numerous wrinkles in transportation systems and the permeation of global market forces into the countryside (i.e. extensive globalization) of once 'remote areas.' These tendencies heighten the city-state's need to stay at the forefront of circulatory space (e.g. intensive globalization) to maintain its competitive niche.

between productivity and wages. Marginally lower productivity in other locations is compensated for by sharply lower wages (especially as the Singapore dollar appreciates). As Singapore's economy is so dependent on foreign equity, the repercussions of declining international competitiveness (as productivity/cost) could be drastic (e.g., 1986 revisited).[12]

5. Productivity Crisis in Singapore

Figure 8.2
Rates of Productivity Increases, Singapore 1986-1992



Source: Singapore Yearbook of Statistics, 1992, Economic Survey of Singapore: 2Q, 1994.

By 1992, it was apparent that it would be increasingly difficult to maintain the upward wage-productivity spiral which had characterized the city-state up to that time. The economy appeared to be coming to productivity barriers in basic assembly and manufacturing and in certain services, but wage increases were still forthcoming in Singapore's tight labour market.[13]

[12]/ Prime Minister Goh Chok Tong made the same points during his 1992 May Day speech.

[13]/ Productivity levels are especially low (and troubling) in the construction and local commerce sectors. They are the objects of concerted government policies. See Republic of Singapore, Ministry of Trade and Industry (1991) The Strategic Economic Plan: Towards a Developed Nation, Singapore: SNP, pages 73-77.

Productivity hikes fell sharply behind wages. Wages jumped 9.2% in 1991 and 7.7% in the first seven months of 1992.[14] However, productivity across the economy only advanced by rates of approximately 1.5 and 3.1%.[15] The slowdown in productivity growth (see Figure 8.2) in conjunction with upward wage pressures (resulting from ongoing expectations and rising real costs) presents a difficult proposition for employers.[16]

There is, however, more to the picture than is suggested by an examination of gross wage/productivity patterns. Although 'the problem' is often presented as one of uncompetitive wage rates, it actually runs deeper.[17] In terms of the wage increases, Singapore has not greatly outstripped its ANIE rivals.[18] The crux of the competitiveness 'crisis' lies in the nature of Singaporean productivity and the way the state has positioned the economy within global circuits of capital.

Singapore's wage productivity crunch would appear to be a classic result of a declining level of the organic composition of capital. To date, Singapore has had an extraordinary

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[14]/ Straits Times 14/12/92:40.

[15]/ The 'gap' between productivity and nominal wages changed from a productivity growth of 7.1% higher than wages in 1987 to a cumulative 19.2% less by 1992. EIU (1994) op cit, page 18. See also US Department of Labour, Bureau of International Labour Affairs (1992) Foreign Labour Trends: Singapore.

[16]/ Surveys by the Singapore Manufacturer's Association in 1992 (in both its January and August studies) listed labour costs as the number one operating concern for manufacturers. (Note: SMA respondents tend to be smaller firms). Singapore Manufacturers Association (1992) "SMA Survey of Manufacturing Operations in Singapore, 1992," and "Report of the SMA Survey on the Globalization and Regionalization of Singapore Manufacturing Companies."

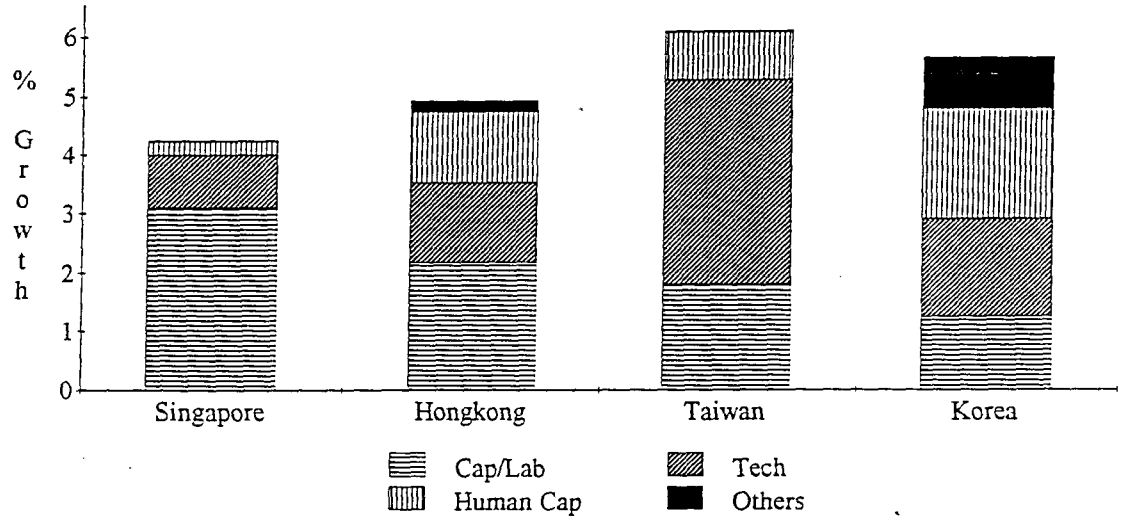
[17]/ In terms of wage increases, two nuances need to be mentioned. First, there is a surprisingly high level of deductions from worker's pay checks. Workers have an average 22% of their wages deducted at source. (For comparison, Jakarta workers average 20%, those in Sydney about 18% and in Hong Kong 0%.) The major element in this regard is the Central Provident Fund (discussed below). - Asiaweek 21/4/93:15. Second, there has been a move away from rigid wage increases and a push towards increasingly flexible pay regimes (ie. a system of bonuses which average about two month's salary per year) to provide 'flexibility' in dealing with shifts in global demand.

[18]/ See United States, Department of Labour (1989) International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing, 1975-1988, Washington.

reliance on capital to achieve its productivity gains (capital formation in machinery and equipment in constant dollars almost tripled from 1985-1991[19]). Figure 8.3 illustrates this bias.

As Alwyn Young has noted in regards to the 1970 to 1990 period, "Capital accumulation explains 117% of the increase in output per worker in the Singapore economy in this period."[20] According to Young, 56% of Hong Kong's increase in output came from a rise in total factor productivity and Singapore's total factor productivity fell 8% during the same period.[21]

Figure 8.3
Sources of Productivity Gains, ANIEs



Source: Monetary Authority of Singapore Annual Report 90/91, page 10.

[19]/ Republic of Singapore, Ministry of Trade and Industry (1992) Economic Survey of Singapore, 1Q, 1992, page 62. Note that this rate had slowed to about 20% per annum in 1993 and 1994. - Republic of Singapore, Ministry of Trade and Industry (1994) Economic Survey of Singapore, 2Q, 1994, page 11.

[20]/ Alwyn Young (1992) "A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore," NBER, Macroeconomics Annual, 1992, Cambridge: MIT Press, pp. 13-54, page 36; see also Republic of Singapore, Monetary Authority of Singapore (1992) Annual Report, Singapore: MAS, page 10 for a comparison with the other ANIES where Singapore's reliance on capital inputs is striking; or Lee Tsao Yuan (1985) "Growth Without Productivity: Singapore Manufacturing in the 1970s," Journal of Development Economics, 18, pp. 25-38.

[21]/ Young (1992) op cit, pp. 35-36. Indeed, Singapore's incremental capital output ratio was twice that of Hong Kong (i.e. twice the investment required for a given increase in production).

I will return to a discussion of the level of capital dependency in Chapter X. For the present, it highlights a key point -- the productivity of Singapore's workers is in some sense a shadow. It is an artifact of tremendous levels of investment in capital goods. This fact is crucial because so much of Singapore's productive capital investment comes from offshore (about 74% in the manufacturing sector).[22]

6. Widening the Labour Market

The detailing of Singapore's productivity picture reveals a number of important points beyond reconsidering the mythologies surrounding Singapore's labour force. In an analytic frame, one is also forced to reconsider the acuity of boundaries constructed to clarify analysis which are themselves fuzzy at best. First, the interdependency of capital and labour in terms of productivity calls into question the supposition of distinct boundaries between these two 'factors' of production.[23] Second, the role of ('global') capital in ('local') labour productivity also leads one to reconsider the spatial bounds within which analysis (in this case of 'labour' productivity) is to be carried out.

The international aspects of the productivity mix (which drive the nation's productivity fixation) are particularly worrying in that productivity in general is declining and returns to capital in terms of productivity gains are also declining. The output per unit of capital has lagged. Singapore's return on capital (in terms of productivity) declined from about 40% in the early 1980s to 11-12% in the late 1980s -- one of the lowest levels in the world.[24]

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[22]/ Republic of Singapore (1994) Economic Survey of Singapore, 2Q, 1994, page 23. As of late there has been a notable increase in the share of manufacturing investments coming from local sources. This growth is an important element of the city-state's economic design.

[23]/ Massey has also argued this theme in pointing to the need to avoid categorization and examine relations between constructs (in her case with a more socio-political bent) such as capital and labour. D. Massey (1993) Space, Place and Gender, Cambridge: Polity Press, pages 86-87.

[24]/ Young (1992) op cit, page 39.

Declining productivity, especially in terms of (international) capital returns are central to Singapore's current conundrum. Productivity, so long Singapore's *cache*, may now be its Achilles heal. State strategy and tight labour markets have undercut the fundamental productivity of the work force.[25] Productivity levels (on a global scale) need to be considered in terms of wage rates and returns on capital investment. In both of these areas (as shown above), Singapore appears to be losing its competitiveness. New sites of production and new workforces can be tuned to ever higher levels of throughput/cost.

Table 8.1
Changes in Value-Added, by Sector, 1978-1988, 1990-92
(Annual Averages %)

	1978-88	1990-92
Whole Economy	5.1	2.7
Commerce	3.6	3.7
Manuf.	4.5	3.7
Transport & Commun.	**8.8**	**4.7**
Construct.**	0.4	5.3
Business Services	1.6	N/A
Financial Services	**11.9**	N/A

** - Construction sector excludes workers living on worksites.
N/A - These figures were not disaggregated for 90-92.

Source: MAS, The Financial Structure of Singapore, 1989, Economic Survey of Singapore, (various).

Instead of volume of output, Singapore must now consider ways of increasing the yield of its workers -- through value-addition and effective spatial orchestration[26] (e.g., logistics,

[25]/ The tightness of the labour market for production workers is perhaps the key issue facing low-end manufacturers. Interviews with firms such as Maxtar (December 1992) highlighted the wide range of incentives that were needed to attract and hold workers - such as lotteries, recruitment incentives for staff, free transport and so forth.

[26]/ This development was reported upon by the special subcommittee on labour productivity in its submission to the 'Economic Committee' of 1985. It highlighted the spectacular growth in value-added from transportation and communication workers from 1975-1984 (up from S$ 11,884 to 30,299/worker). This was far and away the highest

mobility). Table 8.1 illustrates the generally higher levels in value-added to be found in transport and financial services to 1992. While these activities may provide higher short term yields, they are highly subject to shifts in global circulation. The shift towards value-added services also requires shifts in labour utilization which are different from the historical norm.

Singapore has long needed to create new workers for its economy. Principally, this was done through: 1) tremendous increases in labour force utilization, especially in terms of female participation rates (female labour force participation rates climbed from 24.6% in 1970 to 53% in 1990);[27] and 2) the importation of labour. However, these approaches avoided the crux of the productivity issue and only served to locate much of the 'new work force' at lower income levels. The economy needs to move beyond this approach.

In terms of specific adjustments to overall productivity, the arena which would seem to offer the greatest returns is investment in the nation's labour force itself (see also Table 8.3). However, in point of fact, Singapore is behind other ANIEs in terms of human resource development (e.g., in education, number of scientists).[28] This shortfall in training is especially crucial in light of the trajectory of demand for workers.

The occupations showing the greatest growth were in advanced services (which tend to be the most 'information-intense'). From 1981 to 1991, the grouping 'management and administration' increased its share of the labour force from 5.2% to 9.0%. The grouping

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rate of increase (six times the next, manufacturing). See Lee Soo Ann (1989) "The Expansion of the Service Sector," in K.S. Sandhu and P. Wheatley (eds.) Singapore: The Management of Success, Singapore: ISEAS, pp. 280-299, page 289.

[27]/ There is a discontinuity between the 1980 and 1990 census figures, but the trend is none-the-less apparent. See Republic of Singapore, Department of Statistics (1981 & 1993) Singapore Census of Population, 1980 and 1990 (Economic Characteristics), Singapore: SNP Publishers.

[28]/ This point was made by the Deputy Prime Minister Ong Teng Cheong in his kickoff to the 1992 'Productivity Month.' Straits Times, 4/11/92:1. Human resource development and the current shortage of suitably skilled labour is a central aspect of the national Strategic Economic Plan, op cit, pages 57-58 and 98.

'professionals' (which includes technical workers) was up from 9.1% to 17.3% during the same period.[29] However, Singapore is falling behind in reproducing the labour power needed to maintain its changing global niche.

Table 8.2
Singapore, Occupational Structure for Residents and Non-Residents 1980
(percentage of labour force)

	Residents	Non-Residents
Professional & Technical	8.8	9.9
Admin & Management	**4.8**	**8.6**
Clerical	15.5	1.8
Sales	2.2	3.5
Services	10.4	10.3
Agriculture & Fisheries	1.9	0.8
Production & Related	**40.4**	**64.5**
Not Classified	5.7	0.6
Total	99.7	100

Source: Singapore Census of Population, 1980: Economic Characteristics, (Statistical Release IV), 1981. These data were not released with the 1990 census.

There has been an historical reliance on the importation of labour at the high and low ends of the labour force as well (see Table 8.2). By 1992, Singapore was aggressively pursuing global technocrats.[30] The elitism which has long characterized the PAP regime moved to a

[29]/ Digest of Singapore Labour Market Statistics, op cit, page 33.

[30]/ Interview with EDB, November, 1992, and URA, October, 1992.

global stage as the city-state strives to attract the 'best and the brightest.'[31] The Strategic Economic Plan calls this thrust "effective immigration" which it justifies on the grounds of global competitiveness. The Plan notes,

> In a small country like Singapore is it not possible to generate sufficient indigenous top talent in diverse disciplines, to drive the economy in the 1990s and early 2000s...Effective immigration also helps us to compensate for any change in quality as well as increasing the size of the workforce.[32]

The new labour market in Singapore is leaving the former core of the workforce behind in the nation's drive for continued ascendency. This theme was eloquently expanded upon by the Apple Asia Managing Director. He expressed a grave concern for what would become of the one-third of unskilled Singaporean workers who would be left behind in the rush to advance the economy.[33] The pace of change is also exemplified in the fate of the city's numerous guest workers who work in the most hazardous and low-paying occupations.

The use of 'guest workers' (a term generally used for low cost labour) has a long tradition in Singapore (recall the Chinese sojourners of Chapter III). The presence of guest workers helped the economy adjust to the recession of 1985, as these workers were simply sent home.[34] However, recently the Republic has become increasingly reliant on labourers from abroad.

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[31]/ In 1993, the Foreign Researchers Recruitment Plan was introduced to attract top researchers from around the world. - Republic of Singapore, Ministry of Information and the Arts (1994) Singapore, 1994, Singapore: Ministry of Information and the Arts, page 17.

[32]/ The Strategic Economic Plan, op cit, page 48.

[33]/ Interview with the Managing Director, Apple Asia, November, 1992. The 1990 census also contains data pointing to the fact that over one-half of Singapore's workforce has an education level of primary or below. Republic of Singapore, Department of Statistics (1993) Singapore Census of Population 1990: Economic Characteristics, Singapore: Department of Statistics, page 8. This said, the still prevalent tight labour market for operators means that there are lots of jobs (though at low wages) for retrenched workers.

[34]/ As was pointed out in an interview with Tokyo Electric Corporation, guest workers are not only less expensive and easier to retrench but are more reliable when employed as their mobility between jobs is more limited than Singaporeans. - Interview, November 1992.

It proved very difficult to obtain solid current data on the guest worker situation in Singapore.[35] The use of guest workers is a very politically charged issue. Estimates of the current numbers of guest workers, including illegals and commuters range between 150,000 to 300,000 people.[36] In any event, the Ministry of Labour of Singapore has said, "Singapore is reaching the limits of its ability to admit more foreign workers."[37]

Officially, guest workers have increased their presence from 6 to 10 % of the Singapore work force from 1980-1990.[38] There are important distinctions in this broad pattern in terms of ethnicity. Those classified as 'Malays' had only an 11% growth in numbers from 1980 to 1990. The number of Chinese in the 'non-resident' population grew 119%, 'Indians' were up 245% and 'Others' (such as Thais) were up 231%.[39] These disparities outline the ethnic dimensions involved in access to Singapore's labour market (i.e., variable circulatory capacities based on ethnicity). The market is also shaped by state taxes on guest worker utilization.

The government has tried to restrict and manipulate (and profit from) the reliance on guest workers by instituting a foreign worker levy. The setting of the levy rate and the way

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[35]/ Repeated requests to Singapore's Immigration Branch for data on foreign workers brought consistent negative replies. Also note that there are differences between guest workers who officially live in Singapore, 'illegals' and those who commute from Johor.

[36]/ The Straits Times, 4/11/92:27 puts the number in the 200,000 range (half of whom are in the construction sector). Singapore has one of the highest per capita levels of foreign workers in all of Asia. See also Singapore Census of Population, 1990: Demographic Characteristics, (Statistical Release I), 1992, page 5 which places the 'non-resident' population at 311,800 in 1990 (including 97,000 from 'non-traditional' sources). This number was up from 131,800 in 1980.

[37]/ Straits Times, 4/11/92:27. This point is somewhat contradicted by the fact that special (higher) quotas are given to firms working for the government's Housing Development Board housing projects.

[38]/ Republic of Singapore, Department of Statistics (1981) Singapore Census of Population, 1980: Economic Characteristics, (Statistical Release IV), 1981, Table 5, page 6 and 1992 data from Far Eastern Economic Review, 2/4/92:27; and derived from Republic of Singapore, Department of Statistics (1992) Singapore Census of Population, 1990: Demographic Characteristics, (Statistical Release I), page 5.

[39]/ Republic of Singapore, Department of Statistics (1992) Singapore Census of Population, 1990: Demographic Characteristics, (Statistical Release I), page 5.

it is targeted indicates a good deal about the Singapore government's vision of the national economy and the labour market.

The levy has escalated sharply, rising almost 35% (from S$ 220 to S$ 300) between January 1989 and August 1990 (the launching period for the Growth Triangle). Levies are also differentiated by sector as the government strives to fine tune the labour supply. Rates depend on job type or skill level and on the firm's dependence on foreign labour.[40]

In January 1992, the government instituted a two tier levy system for manufacturers which set rates depending on the number of foreign workers a firm employed. If foreign workers accounted for less than 35% of a company's payroll, the rate was S$ 300. If the number rose above 35%, it jumped to S$ 450/foreign worker. This policy effectively caps foreign workers at about 35% of the 'low-end' industrial work force for many firms. This was certainly the case for most of the firms I interviewed.[41]

Marginalization of low-end employment and restrictions on labour importation are important because they cut down on one of a Metropolis' key economic strengths, a pool of flexible low cost labour. As Scott has strongly argued, there are certain critical numbers of low paying jobs which support the internal labour market needs of 'the city.'[42] These jobs need to

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[40]/ It should also be noted that some firms have been accused of passing the foreign worker levy along to employees. - Business Times, 7/4/91:11.

The construction industry is a key target of the foreign levy scheme (and has a huge reliance on foreign workers). In construction, employers must pay a levy to the state of S$ 350/month for unskilled workers and S$ 250 for skilled workers (since January 1991). Exceptions are made to this rule for firms working on HDB estates.

The levies are also based on the country of origin. This system has made Malaysian workers as expensive as Singaporeans. For 'general workers' the cost to employers in 1991 was S$ 41.72/day for Malaysians and S$ 42.05 for Singaporeans - but only S$ 30.08 for workers from 'non-traditional sources.' CIBD (1992) Construction Manpower Update, 1991, page 18.

[41]/ The attractiveness of guest workers goes further than wages or lack of mobility, they are also often seen as more committed to the company than Singaporean labour. The Managing Director of Matshshita Electronics noted how the Singaporean workers were 'the king of the factory' but were not really very productive.

[42]/ A.J. Scott (1988) Metropolis, Berkeley, University of California Press.

be concentrated near the core because accessibility is key to the flexibility of this facet of the total labour market. As this is increasingly difficult in Singapore (due to social controls, high costs and the lack of cheap private housing), jobs which might usually be held by the marginalized urban poor huddle around the urban/national boundary in the shadow region (or they are filled by imported labour, living 'on site').[43]

The changes in Singapore's 'internal' labour market are affecting an extension into the larger realm of regional labour pools which are being tapped in situ or are being 'produced' as they are drawn into the mega-urban zone across the border. Labour markets in Johor and the Riaus are primarily seen in comparison to Singapore. The key allure of labour in the Riaus and Johor is cost (and, to a lesser extent, flexibility).[44]

C. REGIONAL LABOUR POOLS

Johor and Batam present firms with a range of wages and skill levels to firms which are no longer available in Singapore. During 1991, the wage rate for semi-skilled machine operators in Singapore was approximately S$ 850/month. In Johor, it was S$ 350, and in Batam it was S$ 150-200.[45] (A more general comparison is outlined in Figure 8.4).

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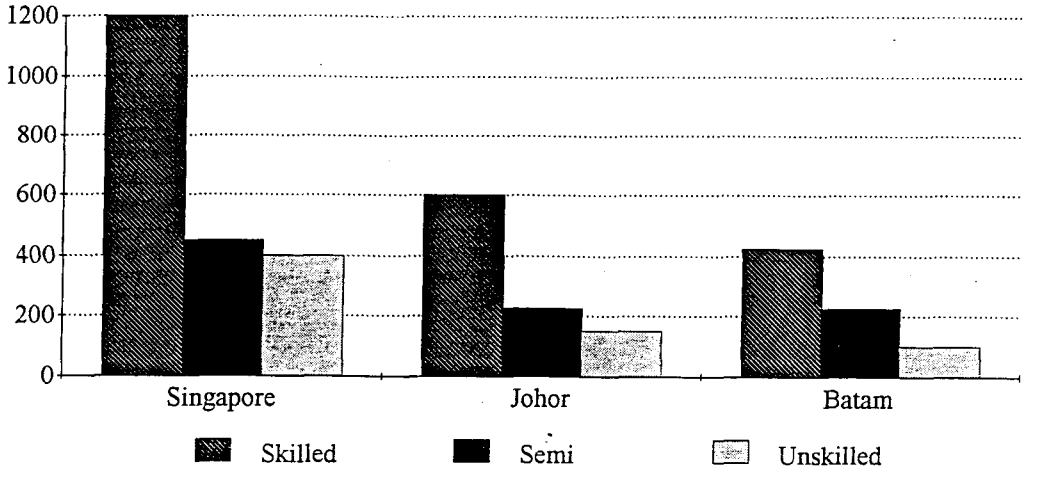
[43]/ Singapore's precarious ethnic *entente cordial* makes it very difficult to have large scale permanent immigration (which often characterizes world cities). The basic low end manufacturing and service functions cannot be fully maintained within Singapore due to the lack of a large, resident ethnic underclass of emigres. The Growth Triangle goes some way to filling this need by providing a flexible, low wage labour pool which can be retrenched without internal political consequences for Singapore.

[44]/ SMA (1992) op cit.

[45]/ Source for data on Singapore and Batam: Akiyoshi Sato (1991) RIM, Pacific Business and Industries, (Mitsui Research Institute), Vol 1. Note: data supplied by Japanese-affiliated companies in Singapore, October, 1990. For Johor: Johor Operational Master Plan.

Figure 8.4
Manufacturing Wage Costs: Singapore, Johor and the Riaus, 1991
(US $/Month)



Source: Singapore Report on the Growth Triangle, 4/6/92.

At first glance, there is little doubt about the starkness of the spatial division of labour. Higher paying management jobs are concentrated in Singapore and production work in Johor and the Riaus (for example, in Johor, 3.5% of jobs in approved projects were management/research and 80% were skilled/unskilled production[46]). However, the story pierces far deeper than a comparison of gross average wage rates and job classifications might suggest. There are numerous important distinctions and nuances between the two labour markets (of the Riaus and Johor) and the way they each interact with Singapore.

1. Batam and the Riaus

Batam's workers, at one-fifth to one-sixth the price of labour in Singapore, are only one-half hour away from Singapore's CBD by speedboat. Plants in Singapore could theoretically

[46]/ Data from Singapore Report on the Growth Triangle, 30/7/92:3.

receive parts from operations in Batam in two hours (important for just-in-time manufacturing). However, for the labourers of Batam, Singapore is another world.

It would be impossible to pay the citizens of Singapore the salaries accepted in Batam. For most intents and purposes, they occupy the same economic space -- but not the same political or social space. This is key: the same labour market area (territorial complex) exists within different jurisdictions. The mix of integration and division illustrates the importance of the variable transparency of the border to the circulation of capital and labour.

The labourers of Batam occupy very different segments of circulatory space from the Singaporean or Singapore-based managers of the plants. For the latter group, Batam has proven to be a 'hardship-post' for managers from Singapore and as such most prefer to commute.[47] The world of the Singapore-based managers, bound as it is to the metropole, is very different than that of the workers of Batam who are unlikely ever to visit Singapore whose skyline is so visible from the island's shores.[48] These two sets of workers have very different circulatory capacities. Batam is a place where the labour markets of these groups of individuals intersect but they are not co-terminus in their bounds.

Batam's other great attraction is that its labour force is being built from scratch. As Batam's original population was so small, labour has needed to be imported and employers have had the vast Indonesian labour pool of workers from which to tap.

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[47]/ Interviews with companies with operations in Batam-Indo, 1992. Note that non-Indonesians still make up less than one-tenth of one percent of island's official population -- Berelang Development Data, 1992:10.

[48]/ For example, Indonesian residents must pay a high exit tax to leave the country unless they are going on a training program sponsored by their firm.

Access to the employment space of Batam is limited.[49] Most jobs must be gained through agencies. The agencies act as gatekeepers and conduits of access to the new frontier of Batam.[50] Employers pay semi-skilled workers US$ 90-115/month and the agency (which controls the circulation of labour) US$ 145/month (for the life of the contract).[51]

The agencies are generally looking for young female labour[52] with little work experience. Recruitment is very selective, and employers may select for specific attributes.[53] Thus, although Batam's population (or 'labour endowment') may at present be small, labour is one of Batam's key attractions. This attraction is not due to the island's 'endowment' but its proximity to Singapore, its differentiated and specified characteristics (such as its controllability) and the fact that it is being built to meet the needs of investors.

Although there is less of it, Batam's industrial work force (at least in the estates) is seen by investors as preferable to that of Johor for a number of reasons.[54] First, although the initial skill and productivity levels may be lower than in Johor, workers have proven to be more amenable to training. Second, as employees come to the island for two and one-half year

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[49]/ Sabor Sianturi, Chief of the Riaus Manpower Office, has said that if people want to work on Batam they must apply through an agency. Employment offices on the island will not serve non-residents. Batam Mayor R. A. Aziz has noted that the tight policy on employment procedures has left many migrants unemployed. - Straits Times, 17/3/92:17. This reality was also evident in conversations with job seekers on Batam (June - Nov, 1992).

[50]/ For a discussion of these agencies see Singapore Report on the Growth Triangle, 18/6/92:2.

[51]/ M. Perry (1991) "The Singapore Growth Triangle: State, Capital and Labour at a New Frontier in the World Economy," Singapore Journal of Tropical Geography, 12 (2), pp. 139-151, page 148. The recruitment companies pay for relocation costs and housing on the estate.

[52]/ One should be wary, however, of painting the island's labour market into the tight corner of a single archetype. As discussed in Chapter V, the island is increasingly characterized by a differentiated labour market (especially when compared to the 'historical norm' of fishing).

[53]/ In a 1991 survey, 71% of responding factory workers at Batam-Indo (n=500) had no previous work experience. M. Perry (1991) op cit, page 149. In an Interview with Colombia Offset Printing (October 1992) they noted how they had requested Mandarin speakers but that it was "a problem' for Batam-Indo (i.e. based on ethnicity).

[54]/ This list of reasons comes from interviews with employers operating in the Growth Triangle (see appendix for listing).

contracts, there is much less turnover (which hurts productivity) than there is in Johor.[55] Third, as most young women employed in the factories are based 'on-site' in dorms, they are easier to 'control.'[56] Fourth, as mentioned above, there is more screening of workers (especially the young women) coming to the island's factories. The characteristics of labour are as important as the shear endowment (and, in this case, differentiate the Riaus from Johor).

Batam also sits at the hub of an emerging regional labour market in the Riau Archipelago. This market is outlined by the high volume of crafts transecting the chain's waters and characterized by a move out of fishing and into a huge array of occupational types. There is also a marked drift of labour to Batam from more distant islands in Indonesia (notably Sumatra) in search of casual employment in the interstices of the island's boom. These workers are critical to the archipelago's economic (re)formation. They are exerting agency (in the context of new possibilities) and in the process are helping to build the regional ensemble. They are not an inert endowment.

The growth of employment on Batam is an important point because it clearly illustrates how capital investment can create new economic and, in this case, employment spaces. However, the new spaces are not solely the result of some internal spatial logic of capitalism. These 'spaces' are 'instantiated' by individual agents who have come to the new frontier to work and by the investors who employ the sojourners. These agents are acting on, and creating, new opportunities facilitated by the transformation of spatial relations in the region.[57] The mix of

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[55]/ These sentiments were shared by the vast majority of firms interviewed.

[56]/ Note for example that the young women must sign contracts assuring that they will not get pregnant during their tenure. - Interviews, Batam-Indo Estate, Oct 1992.

[57]/ I was struck by the pioneering spirit of those I met who had simply gone to Batam in search of work. The lot of these individuals was difficult in that, outside of construction and some services, very little hiring is actually carried out on the island.

agents and their various aspirations and limitations combine to compose a unique grouping which is not reducible to shear numbers (as the endowment argument might have it).

The Batam labour market is being produced along with the region itself. It is also being unevenly brought into the shadow zone of the Singapore labour market. It is bound to Singapore, but also cut off from the Singapore labour market by the border. In the creation of new labour pools and in the uneven and partially incomplete linkages to Singapore, Batam's labour force has much in common with the situation in Johor.

2. Johor: Ethnicity, Place and Work

As was mentioned in Chapter IV, the labour force of Johor has long been highly segmented along ethnic lines. The patterns of the past are being reworked and new divisions within the labour force are apparent. Access to Singapore, gender and ethnicity come especially to the fore.

A key distinction between Batam and Johor concerns the access to work in Singapore itself. The Johor Ministry of Labour has explicitly noted that the lack of the need for an exit visa to move from Johor to Singapore (unlike Batam) has led to a great deal of 'leakage' into the city-state.[58] In particular, Johor's shortage of 'production workers' is aggravated by a high level of demand from Singapore.[59]

Access to Singapore is, however, highly uneven. It is affected by ethnicity. Chinese

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[58]/ JSEDC (1990) Johor Investment Guide, 10/5/90:3. See also the comments of the Chair of the Human State Resources, Science and Technology Committee, Dr. Chua Soi Lek, to this affect, Straits Times, 29/3/91:22. The JSEDC Director of Corporate Planning placed the number of Johorean commuters working in Singapore at 35,000. Interview, November 1992.

[59]/ Note that of those who commute to Singapore, 85% are classified as 'production' and only 0.1% as 'executives or professionals.' Johor Operational Master Plan, op cit, page 2-23; see also Straits Times, 23/4/91:13.

Johoreans are much more likely to make the trip to Singapore than are Malays or Indians.[60] According to Johor government statistics, 62% of workers commuting to Singapore are Chinese, 22% are 'Indian' and Malays account for only 16%.[61] The racial difference illustrates the interweaving of circulatory capacity and ethnicity (in this case, in accessing the Singapore job market). The uneveness of the integration process is also evident in Johor itself and in the 'making of Malay labour.'

Malay ethnicity plays a major role in the development of Johor's current labour market. This is especially true in light of the New Economic Policy or NEP.[62] The NEP was designed to bring more ethnic Malays (or '*Bumiputras*' -- 'sons' of the soil) into industrial and service activities (and into 'urban spaces') which had been dominated by Chinese. Tax breaks and incentives were given to firms owned by *Bumiputras* and the government has justified a good deal of its investments in the economy as being designed to enhance *Bumiputra* equity (through state or UMNO controlled firms).

The push to engage Malays in non-agricultural activities helps to underpin both the processes of mega-urbanization (as non-farm employment) and regional integration. The NEP gave tax breaks and other incentives to investors hiring Malays for non-farm employment. Yet, the NEP also skewed the labour market in a number of ways. It highlighted ethnic distinctions in the labour market and has driven a kind of spatial perversion in the diffusion of industrial

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[60]/ There have been accusations of ethnic bias in the issuance of work permits from Singapore. - Straits Times, 7/3/91.

[61]/ Johor Operational Master Plan, op cit, pages 2-13 and 2-21. I must say that I find these data difficult to believe. My time spent at the border crossing observing those crossing in *Bas Kelang* (work buses) and obviously commuting to work would suggest a much higher share for ethnic Malays (as would the comments of employers interviewed in Singapore).

[62]/ See Ahmad Idriss (1990) Malaysia's New Economic Policy, Petaling Jaya: Pelanduk Publications; or J. Faaland, J.R. Parkinson and R. Saniman (1990) Growth and Ethnic Inequality: Malaysia's New Economic Policy, New York: St. Martins.

activity into the countryside. Industrial estates spread to the countryside to tap *Bumiputra* labour and gained the government support that went with it.[63]

Pasir Gudang is a focal point of this type of labour market. In the Pasir Gudang electronics plants, 94% of the production workers are *Bumiputra.*[64] There is also an emphasis on female labour. The marketing of industrial estates, especially in the interior of the state, is notable in its emphasis on the availability of *Bumiputras*, but more especially female workers.[65]

'Structural unemployment' among males (noted in Chapter IV) in the countryside illustrates the unevenness of the integration process. Recall the example from Cahaya Bahru in Chapter IV. There is a great deal of demand for the young of Cahaya Bahru to work in the newly established massive Pasir Gudang Industrial Estate. Yet, this demand is uneven. Until recently, it was very difficult to get to the Pasir Gudang Industrial Estate from the village by public transport. Company buses (*Bas Kelang*) only came to the village in search of female workers for assembly work in factories (illustrating differential circulatory capacities based on gender).[66]

The movement of women into the paid work force (a trait of mega-urbanization) is part of the development of a new 'labour force' as much as a tapping into older ones. Within Johor, new 'labour spaces' are being produced through investments linked to the regional boom.

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[63]/ On the other hand, some firms have demonstrated a marked preference for Chinese labour in spite of, or perhaps because of, the NEP. Chinese controlled firms (of which there are many) tend to prefer Chinese labour. These firms are concentrated in Chinese areas such as Senai. The possibility of being a token Bumiputra in a Chinese firm dissuaded one of my chief informants (who was a Malay Mechanical Engineer) from working for such firms, and he drove a taxi in JB.

[64]/ P. Guiness (1992) On the Margins of Capitalism: People and Development in Mukim Plentong, Johor, Malaysia, Singapore: Oxford University Press, page 58.

[65]/ Straits Times, 9/1/90 and interview with JSEDC, November, 1992.

[66]/ P. Guiness (1992) op cit, page 184. See also comments from Labour Ministry about how employers have "the alternative of recruiting male workers as a solution to the shortage of women." Johor Investment Digest, Sept/Oct 1990:3.

Another aspect of the Johor labour market is the importance of relative location.[67] Job opportunities are affected by the siting of new estates. In this regard, the discussions in the next chapter move to the fore. The location of industrial and service employment is heavily premised on the location of the proliferation of multiple-use complexes and townsites. The new employment spaces of Johor are premised on a wide range of variables which include the profitability of land development. New employment spaces are being created by land developers and drawing migrants from rural settings to the new sites of mega-urbanization. In this regard, access to Singapore is paramount.

Because Johor's reformation is so tied to the Singapore market, there is a deep concentration of investment in and around Johor Bahru -- and the causeway to Singapore. The access to Singapore is a prime consideration for investors[68] and is exemplified by the much higher levels of occupancy in industrial estates close to Johor Bahru. The desire of employers to be close to Singapore has led to an over concentration of employment opportunities and economic activity in and around Johor Bahru. More recently, some employers (and some employees) are increasingly turning away from Johor Bahru because of the intense congestion (and competition) accompanying the town's explosive growth.

A number of firms have set up large free-standing plants near smaller towns in order to gain the advantages of a captive labour market (e.g., Sharp in Batu Pahat[69]). However, such developments would not be possible if the labour was not accessible and if goods produced

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[67]/ Eighty per cent of commuters to Singapore come from Johor Bahru. Johor Operational Master Plan, op cit, pp. 2-18.

[68]/ This came out again and again in the interview set.

[69]/ The Sharp VCR Plant in the small northeastern town of Batu Pahat produces some 1.2 million units per year for global markets. (Mal) Business Times, 3/09/92:3.

could not be moved to Singapore. Thus, labour availability in itself is not enough -- relative location matters.[70]

The search for the 'right sort' of labour in the right place is a source of the structural labour shortage. Labour shortages in the state are slowing growth.[71] This shortfall is largely a result of the speed and scope of change. Johor M.B. Muhyiddin has said, "There is no acute labour shortage in Johor, there is only a problem of labour mobility."[72] One way around the mobility issue is to bring the jobs to the villages. A large (but unknown) share of Johor's workforce gets to work on *'Bas Kelang.' Bas Kelang* penetrate deep into the countryside in search of labour. The search for labour has transformed (unevenly) the spatialities of the state's labour markets.

The search is now increasingly going further afield than remote villages. The opportunities presented by labour shortfalls (as in Batam) are drawing large numbers of workers to Johor from other areas of Malaysia and (illegal) immigrants from Indonesia.[73] These new citizens, who occupy the peripheral squatter settlements around the state's towns and villages, are an important part of the total labour force, yet they would not be in the state in the absence of the regional take-off.

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[70]/ In interviews with employers, the difficulty in accessing plants (i.e. traffic jams) in Johor was a prime concern (after access to labour) and hindered the establishment or expansion of operations in the state.

[71]/ Labour shortages are still the key 'problem' cited by manufacturers moving to Johor. - see (Mal) Business Times, 7/10/92:19; or Straits Times, 23/6/91:13; Straits Times, 22/6/91:23 Singapore Manufacturers Association (1992) SMA Survey Report on the Johor-Singapore-Riaus Growth Triangle, Singapore: SMA, page 4 and interview set.

Chair of the Johor State Human Resources, Science and Technology Committee, Dr Chua has said "The government is looking for a solution to the labour shortage." Cited in Straits Times, 23/6/91:13.

[72]/ Straits Times, 22/6/91:23.

[73]/ The Johor Operational Master Plan puts the estimated number of Indonesians in the plantation sector at about 50,000, pp. 2-30; see also P. Guiness (1990) op cit. Wages in Malaysia are about ten times those in Indonesia. - Straits Times, 3/12/90:18; see also New Straits Times, 18/6/92:4; Straits Times, 11/5/90:19.

D. SUMMING-UP

It is important to note that in both Johor and Batam labour per se is not really a sufficient factor endowment. Paradoxically, in the case of Johor, labour shortages are the most important drag on development. Batam's indigenous population is almost negligible. Labour is being brought into the area, or brought into the orbit of the region, by investment. Much of the capital originates in Singapore. In this sense, the extension of the Singapore space economy is creating new labour markets and new spatial divisions of labour. It is the regionalization of the economy (and the Growth Triangle boom) that gives the labour forces of Johor and Batam their attractiveness (i.e., the spatial context of labour). Thus, the labour endowment is in many ways being manufactured along with the region.

The influx of worker-immigrants into all three areas of the Growth Triangle illustrates another key theme. 'The' labour market in the Growth Triangle region is actually a number of overlapping markets. There is a marked, though uneven, mixing of labour markets between the three nodes and high levels of 'outside' labour. It is the tensions around mobility within segments of the labour force which yield the most telling insights.

Labour also needs to be situated within the context of capital flows, accessibility and land use regimes (e.g., where industrial estates are built). One needs to consider the regional labour market as a 'fuzzy' category in both spatial and categorical senses. It is in the shadings of the labour market that a more representative portrait of regionalization emerges than in a consideration of numeracy. The same may be said for the focus of the next chapter -- land.

CHAPTER IX

COMPARATIVE ADVANTAGE AND LAND: LANDSCAPE AND SPACE

A. INTRODUCTION

The second element of the comparative advantage model to be addressed is 'land.' The conceptualization of the land endowment involves raw material supplies and space for development. Within the Growth Triangle, there are little to no natural resources from which the region or any of its parts might gain comparative advantage.[1] Indeed, if anything, it is the region's capacity to draw in needed resources which is its key competitive niche (i.e., circulatory accessibility).[2] The accessibility and openness which renders the region competitive also has implications for how the land base itself comes to be used. In this chapter, my focus will be on the key 'natural resource' of the regional economy: a well located land base.

To this point, I have omitted any discussion of the region's natural geography. This is because there are few variations on the regional theme of lowland tropical jungle. The relative homogeneity of the land-base is an important aspect of the way the region has unfolded. It has

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[1]/ In nearby areas of Riau Province (in Sumatra) and Malaysia there are substantial energy resources, but they can not be seen as catalytic to the region's boom.

[2]/ Singapore, and to a lesser degree Johor and the Riaus, overcomes shortcomings in terms of resource endowment by maintaining a free trade policy which makes imports relatively cheap.

cut down on geographical variations arising from ecological differentiation and let the marketplace have fuller play.

In this chapter, I will be portraying a process whereby the 'landscape' is being replaced by an 'economic space.' This space is highly reactive to stimuli from Singapore and beyond and is being deeply reconfigured. Regional land use regimes are currently becoming increasingly heterogeneous as they are integrated more deeply with wider markets. Productive value (e.g., as in palm oil land) is being replaced by exchange (trading) value in the tumultuous local land market with the penetration of market forces of a much greater scale than ever before.

The key themes in this chapter parallel those of the discussions on the labour market. They are: 1) Singapore's regional centrality; 2) the differentiation of land use patterns; 3) the importance of circulatory change to land utilization (and *vice versa*); 4) the fuzziness of land as a category; and 5) the social production of land use spaces in the context of regional reformation.

B. SHADES OF SINGAPORE'S LAND MARKET

1. The Social Construction of Land Scarcity

> Singapore is a very small place in a very, very large, variable, changing world, and if it is not nimble, if it is not swift at making adjustments, it will perish and its people know that. (Lee Kuan Yew, 1990)[3]

I began Chapter VI with a comment on the city-state's small size. The small land base is an important part of the nation's strategic and planning consciousness. In particular, the

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[3]/ Straits Times, 27/5/90, cited in R. DeKoninck (1992b) Singapore: An Atlas of the Revolution of Territory, Montpellier: Reclus, page 33.

perception of land scarcity drives expensive land reclamation projects,[4] the nation's high density housing push, the need to 'network' with other locales, and it is also ultimately a foundational element of the logic to develop the Growth Triangle (to increase the economy's land base). However, the construction of land scarcity in Singapore itself must be seen as a social product.

The situation Buchanan wrote of in the early 1970s has echoes today. He wrote,

> Yet there seems to be little reason to believe that there is any absolute scarcity of land in Singapore, certainly in terms of the needs of the next few decades. Land scarcity in Singapore is far more a product of institutional factors....and far less a product of the small size of the state, than many are prepared to admit.[5]

2. State Control

Like most aspects of Singapore, the land market is characterized by a high level of government involvement. Ng and Chee have presented data outlining the growth of direct state control of land through ownership (Table 9.1). State ownership has partly been achieved through massive expropriations facilitated by a number of ordinances passed in the 1960s.[6] During the period from 1965 to 1988, 1,200 expropriations were carried out, which affected 270,000 families (or about a third of the population).[7] Affected groups were dispersed ethnically (into multi-ethnic housing blocks) and spatially (out of the urban core).[8]

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[4]/ The government has plans to eventually increase the size of Singapore to 730 km^2 from its current 626 km^2 through land reclamation. The emphasis will be on amenity landscapes with the intention of doubling the coastline by the year 2010. - Far Eastern Economic Review, 17/10/91:118.

[5]/ I. Buchanan (1972) Singapore in Southeast Asia, London: Bell, page 131.

[6]/ See Warwick Neville (1993) "The Impact of Economic Development on Land Functions in Singapore," Geoforum, 24 (2), pp. 143-163, pages 154-155.

[7]/ DeKoninck (1992b) op cit, page 84.

[8]/ The Singapore government is occasionally ruthless in carrying out its spatial re-ordering of the nation. The bulldozed homes which I visited in 1992 in the rural enclaves in the north of the island (many with furniture still inside) are testament to the state's desire for spatial control (and may be seen as the precursors of the resettlements I have described in the Riaus and Johor). For example, some 120 graves have been "made free of encumbrances for development." - cited in Neville (1993) op cit, page 158.

Table 9.1
Percentage of Private and Public Ownership, Singapore 1949-85

Year	Percent Private Land	Percent State Land
1949	69	31
1960	56	44
1965	51	49
1975	35	66
1980	30	70
1985	24	76

Source: P. Motha (1989) Singapore Real Property Guide (3rd ed.), Singapore: Singapore University Press, pages 7-8.

3. Capital/Land Imbalances

The representation of land scarcity is a key element in the ideology of vulnerability (and therefore, of state power). It is also bound up with rather more fiscal concerns. Land scarcity is also linked to an imbalance between capital resources and land. In Singapore, there is a huge stock of capital tied up in savings which cannot find a vent in real estate as the land market and savings utilization patterns are tightly controlled by the government.

Part of the supposition of land scarcity arises from the combination of a growing capital pool and a decline in the number of available mega-projects in the built environment. To 1992, the government focused a good deal of its efforts on reworking the city-state's landscapes. Projects ranging from New Town developments, the new transit system, large scale land reclamations and the development of industrial estates had been key elements of state policy and initiative. They have also been physical manifestations and justifications of state power.

In the private sector, developments outside of commercial projects (e.g., retail and office space) are limited by state control of lands (ironically this control is premised on land shortages) and the fact that state enterprises are often 'the competition.' Due to government restrictions, there are few opportunities left for recreational (e.g., golf course), residential or even industrial estate developments.[9] The lack of outlets for private and state capital is all the more troublesome in light of the tremendous stock of national savings searching for investment (discussed in the next chapter).[10]

The high local savings rate and tightly controlled local land market have met with another element to add further pressure to the country's land scene and, as a result, further pressures in Johor and the Riaus. This element is the city's growing world city niche.

4. World City Formation: Office Space

Over recent years, the world urban system has seen an equalization of land prices among key cities as per their positions in the system of world cities. The highly mobile capital which courses through these cities tends to even-out land rents between them depending on the placement within the world city hierarchy. For example, office space costs in Singapore are below those of Hong Kong, but ahead of Kuala Lumpur and Manila.

Office space is an important segment of the Singapore property market (about 35% of the total, by value).[11] It is also a particularly good example of how land availability and price

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[9]/ As land prices are so high now, building (outside the state sector) is cooling form its hectic days in the 1970s and 80s. Average floor space built (gross floor plans of developments completed) per month declined from a norm of about 2,000,000 square feet to 1988 to only 1,000,000 in the period from 1989 to June 1992. - Singapore, Public Access to Statistics, Matrix P400433

[10]/ Increasing international linkages (in combination with the fact that foreigners cannot borrow Singapore dollars) has led to an influx of funds which have further fuelled the land market and the production of relative scarcity.

[11]/ Singapore International Chamber of Commerce (1991) Singapore Guide for Investors, Singapore SICC, page 38. See also SICC (1992) "The Dynamics of Office Space Demand," Economic Bulletin, 9/92:13-15.

may be over-ridden by other, contextual, spatial factors -- location, as they say, is everything. Land prices in Singapore's CBD are location-specific, but have generally moved up strongly with the city's development of more headquarters and finance functions (even in the face of a great deal of inventory coming into the market). Indeed, one might argue that land with an excellent (global) location is a key endowment of Singapore (even though the island is small, it is well connected).

Rental prices for office space in the CBD took off between 1988 and mid 1990. From December 1988 through December 1990, office rental rates increased 91% on average. (They have since levelled off.)[12] The peak increase occurred in October 1989 when rents for office space jumped 10% in that one month.[13]

Escalating costs in the CBD have not yet pushed much office development out of the urban core, much less into the Growth Triangle. There is still relatively little evidence of back-offices in Johor or Batam, and even Singapore's decentralized office locations, such as Alexandra Road and the Jurong Town Corporation's new 'business parks,' have low occupancy levels.

The weakness in 'non-central' markets may be partially a result of the current over-supply of office space in Singapore as a whole.[14] It is also due to the ironic fact that in a globalized business environment physical location may matter as much or more than ever.[15]

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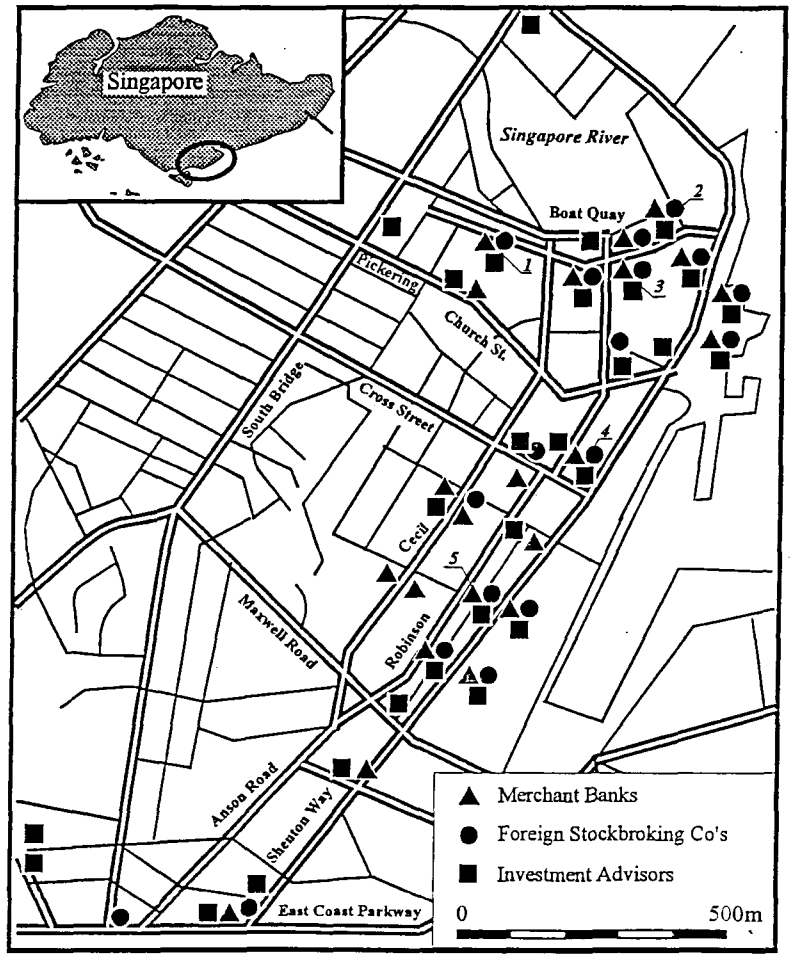
[12]/ Data from Richard Ellis Research Singapore, cited in Singapore International Chamber of Commerce (1991) op cit, page 40; see also Republic of Singapore, Urban Redevelopment Authority (1992) Real Estate Statistics Quarterly, 2Q, Singapore: URA, page 113.

[13]/ Singapore International Chamber of Commerce (1991) Singapore Guide for Investors, Singapore SICC, page 38.

[14]/ See Business Times, 16/9/92:1.

[15]/ One should also add that there is a certain inertial element at play here. An important percentage of office space take-up is through firm expansion rather than new tenants. - Interview with Singland/UIC Corporation,

Figure 9.1
Location of International Service Firms



Note: 1 - OCBC Centre (14 firms); 2 - Chartered Bank Building, Battery Road (31 Firms); 3 - Shell Tower (20 firms); 4 - Hong Leong Building (15 firms); 5 - DBS Building (16 firms).

Source: Field Survey, 1992 and Monetary Authority of Singapore (1992) Directory of Financial Institutions, Singapore: MAS.

October 1992.

Also note that a plan by the Monetary Authority of Singapore to build a 'high-tech' back-office park for banks in the suburbs of Singapore was shelved in 1992 because of a lack of interest. A Jones, Lang, Wootton survey revealed that only one in five firms questioned expressed any interests in decentralizing some of their activities. - Straits Times 9/7/92:36. This surprising development should warrant more research, but may be due to the high value activities of most banks and the nature of the banking centre (i.e. so much international exposure/business).

In Figure 9.1, I have identified the locations of three types of large international finance firms. The gravitational field is really quite striking. Of 212 Investment Advisors (n=92), Merchant Banks (n= 76)and Foreign Stock-broking Companies (n= 44) whose locations were identified in 1992, 202 were within an area of 1 square kilometre (see Figure 9.1). Indeed, almost half (96) were to be found in 5 buildings (see also Figure 9.1). International office space represents the concentration focus introduced in Chapter II. The focus is an important part of the escalation of prices which in turn increases the intensity with which central spaces need to yield revenue, thus further increasing concentration.[16]

5. General Increases in Land Prices

The increase in land prices is not only found in the market for offices in the CBD. The increase in prices in the core is linked to a more generalized appreciation of land values throughout the city-state. Figure 9.2 illustrates the general appreciation in Singapore land values since the 1986 recession and along with the new economic policies of the Economic Committee which stressed the shift towards global services.

The increasing land costs have at once marginalized some economic activities (e.g., ship repair in Tanjuong Rhu near the CBD) and provided a cash windfall for firms looking to invest off-shore or to diversify.[17] Beverage giant Fraser and Neave (F & N) saw one of its prime pieces of land (on the outskirts of the CBD) revalued by almost 300 times. This revaluation added S$ 280 million to the company's books and pushed up its 'net tangible asset base' per

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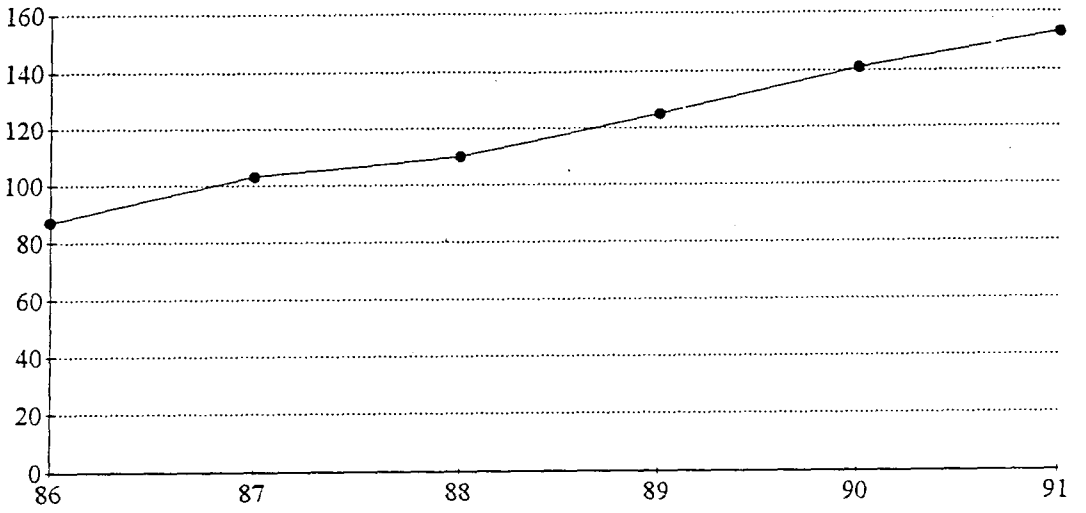
[16]/ The archetypical project at the core of the Republic is Suntec City. It is largely financed Hong Kong (Chinese) capital. It is being built on reclaimed land at a cost of S$ 1.5 billion. See Far Eastern Economic Review, 17/10/91:119. Suntec will stand across the bay from the new CBD which is planned for construction adjacent to Raffle's Place also on reclaimed land. Suntec and the plans for the new CBD are examples of the concentrative elements of contemporary capitalist spatialities.

[17]/ See Straits Times, 8/7/92:39.

share by S$ 1.59.[18] The intermingling of land valuations and fictional capital will be addressed in the next chapter. For the moment, the more direct impact of the surge in capital resources is crucial. The company is now even better placed to move offshore or to engage in land development.

Figure 9.2
Land Prices (All Properties)
Singapore 1985 to 1991, 1985=100



Source: Singapore Statistical Yearbook, 1992, page 285.

6. Industrial Spaces

The price index for industrial properties grew by 122% from the third quarter of 1988 to the third quarter of 1992.[19] These costs are unlikely to come down much as Singapore has

[18]/ Business Times, 12/4/92:3;

[19]/ Republic of Singapore, Singapore Urban Redevelopment Authority (1992) Singapore Private Property Price Index, Third Quarter, 1992, Singapore: URA, page 12. Note that the actual increase in costs for foreign investors may be set much higher due to the appreciation of the Singapore dollar during this period.

developed about as much inexpensive industrial land as is likely to be socially acceptable at present and occupancy rates are in the 94-98% range.[20] The (socially produced) shortage in Singapore is driving the development of Industrial Parks from Kota Tingi (Johor) to Batam-Indo (Batam).[21]

The land shortage has wider implications than simply pushing up costs, it also cuts flexibility. The Director of Planning for NEC Electronics emphasized how a prime reason for subcontracting certain production activities and looking to invest in Johor and the Riaus was the shortage of space.[22] The shortage needs to be seen in the frame of tight government control of industrial lands.

While market forces are important to the process of relocation, the role of the state in producing new industrial spaces must also be kept at the fore of any interpretation. The development (or production) of the industrial land markets (or spaces) in Singapore, Johor and Batam is heavily affected by government investment in infrastructure generally and in industrial parks in particular.[23] In Singapore, 75% of the existing stock of industrial space is owned by the government.[24] In Johor in 1992, JSEDC announced plans to invest M$ 900 million to

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[20]/ Republic of Singapore, Urban Redevelopment Authority (1992) op cit, page 80. This was up from a low of 80% in 1984.

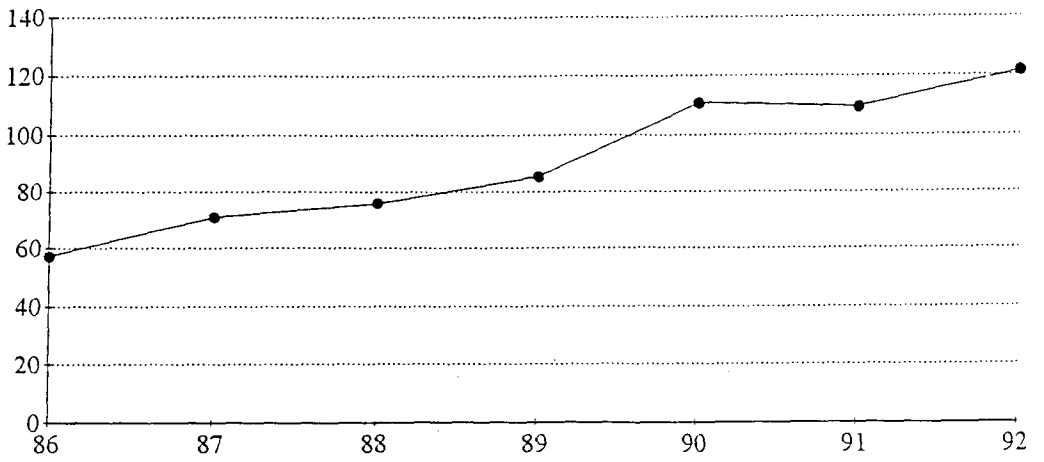
[21]/ Shortly after the initiation of the Growth Triangle push industrial rental rates flattened out markedly. Jones, Lang, Wootton (1992) Singapore Quarterly Market Review, 2Q Singapore: JLW, page 33.

[22]/ Interview with Director of Planning, NEC Electronics, October 1992; a similar point was made by the Finance manger of Columbia Offset Printers she noted how price was not so central but that it was hard to get it when it was needed.

[23]/ In Singapore, for example, the Jurong Town Corporation runs 28 industrial estates which are the bases for some 223,000 workers (78% of Singapore's manufacturing workforce). These estates have gross fixed assets of S $23 billion. It is interesting to read early accounts of the emptiness of the first Jurong Park. The transformation of Jurong underpins the faith in the development of peripheral industrial estates. Jurong is now spreading into the Growth Triangle and further afield.

[24]/ James Lang Wootton (1992) op cit, page 58.

Figure 9.3
Industrial Land Price Index, 1986-1991
Prime Flatted Factory
1985 = 100



Source: Republic of Singapore, Department of Statistics, Singapore Yearbook of Statistics, 1992.

produce some 2,700 hectares of industrial land in the state to meet the growing demand for such land. The development program will, over the next five years more than double the present industrial land base in the state.[25] As the manager of JSEDC's corporate planning department proudly put it, "out total land base will be almost the size of Singapore."

The authorities in both Batam and Johor are pushing to have all industrial development

[25]/ New Straits Times, 1/10/92: 17.

occur in designated parks.[26] This push skews the market for industrial lands. In Johor, the artificial constriction on available lands (in combination with the search for labour) serves to push the mega-urbanization process further and further into the hinterland in a somewhat discontinuous manner -- the industrial land market leap-frogs from site to site and further into the margins. As a matter of policy, JSEDC has said that it would ensure a "fair distribution of industrial estates to outlying areas."[27] Thus, state policy is crucial to the production of the new mega-urban spaces of the Growth Triangle.

The role of the state in the formation of industrial space in Johor is crucial, but it is not, however, determinative. Users must find the land attractive. Industrial land in Johor has come to be seen less for its availability, intrinsic size and rent values and more for the availability of surrounding labour pools and access to road works.[28] While some new estates fill up quickly, others have languished in isolation. The key variable would seem to be proximity to Singapore. I found that occupancy rates in Johor decline, on average, approximately 15% with each 15 kms (by road) from Singapore.[29]

The industrial land market on Batam is primarily predicated on its macro-scale location and closeness to Singapore. However, the number of options on the island open to investors

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[26]/ See for example, the discussion of attempts to control pollution problems in Johor through forcing workshops into industrial estates. - New Straits Times, 14/10/91:3.

Though this is only partially successful. Johor Bahru in particular is thought to have several hundred 'illegal' factories. -- Interview with JSEDC; and Straits Times, 14/5/91:26.

A 1992 report suggested that only six out of 20 applications (for Jan-Feb 92) for industrial projects were to be sited in industrial estates. This situation is starkly different than in Batam and represents the higher degree of local knowledge and connections among (mostly Singaporean SME) firms. Singapore Report on the Growth Triangle, 30/7/92:2.

[27]/ New Straits Times, 1/10/92:17

[28]/ These two themes dominated my interview set.

[29]/ Based on unpublished occupancy data supplied by JSEDC, July 1991 and September 1992.

is quite limited and about 85% of realized industrial developments have gone into two industrial estates.[30] The Batam-Indo site is filling up, yet a number of other estates are sitting empty (recall Figure 5.3). Land availability is not enough to draw firms. Other aspects of land would seem to be central to location decisions (such as water, power and accessibility).

On Batam, there are also relatively few small scale Singaporean manufacturing firms and a preponderance of multinationals (though, again most are based in Singapore). This divergence is in spite of the fact that both sets of actors presumably are looking at the same gross land endowment. Other elements are at play (such as a political wish of TNCs to ingratiate themselves with the Singaporean and Indonesian governments), and they are important to regional production.

Firms, are also looking at a larger palate of choices than merely those found in the Growth Triangle. Although it is the basis of Batam's attractiveness, it is not enough to simply compare land parcels on Batam with those in Singapore. Although land costs on Batam are about 30% less than in Singapore, they are still high by global standards. Rents at Batam-Indo are also paid in Singapore dollars so the appreciation of the Singaporean currency which is hurting its own manufacturing base is also affecting real rents on Batam. The high cost of rentals at Batam-Indo is a widely held concern. [31] The industrial spaces of Batam now need to be placed on a world scene and other global sites are appearing more attractive.

The classic example of the need to consider wider markets for industrial land use decisions concerns Tomy Toys. The company, mentioned in Chapter VI is an archetype for the relocating Singaporean labour intensive industrial concern. In the late 1980s, it purchased rights

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[30]/ This estimate was derived from field work in 1992 and is based on number of establishments.

[31]/ There is also a growing concern over transportation connections amongst the tenants at Batam-Indo. Interviews with tenants, 1992; see also (Mal) Business Times, 12/9/92:23.

to a parcel of land on Batam. In 1992, the land remained empty as the company moved its production activities to Thailand and South China where a myriad of other variables interceded to make space in those regions more attractive. The wider range of options available to industrial concerns is not as prevalent in other sectors of the land use matrix.

7. Retail/Commercial

The market for retail space in Singapore has traditionally been amongst the most dynamic in Asia.[32] Through 1992, Singapore's retail space market was very buoyant due to increasing incomes and the large numbers of tourists and expatriates who frequent the island.[33] For example, in 1991, rental rates in good retail space fronting Orchard Road set new records, exceeding S$ 60 per square foot per month.[34] The intensification of land values was expressed in Japan's Sogo department store's 1992 purchase of the Paragon building for nearly S$ 10,000 per square foot.[35] High costs are beginning to push many retailers out of Singapore's core -- some to the suburbs and some further to Johor.

By 1991, Singaporeans owned more than 70% of the 440 shop lots at the 'Holiday Plaza' shopping complex in Johor Bahru which is popular with Singaporeans.[36] As noted in Chapter V, rentals in Holiday Plaza ("Asia's longest" shopping centre!) increased 100% in the last two

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[32]/ Straits Times, 22/10/90:40.

[33]/ As of late, increasing operating costs (such as rent and wages), the appreciating Singapore dollar and the introduction of a goods and services tax have greatly dampened the retial sector.

[34]/ Singapore International Chamber of Commerce (1991) op cit, page 40. Note that rentals declined by 1992 to the S$ 40-45 range. This trend is the result of three developments: 1) declining revenue due to a drop in Japanese tourists; 2) overstaturation in the luxury goods market; 3) growth of suburban centres. - Singapore International Chamber of Commerce (1992) Annual Report 1991-92, page 41, citing Richard Ellis data.

[35]/ Singapore International Chamber of Commerce (1992) op cit, page 40.

[36]/ Straits Times, 25/1/91:22.

months of 1990 at the height of the Growth Triangle craze associated with the 1989 to 1992 period.

The early boom in retail investment from Singapore had cooled a bit by late 1992. The early phase of investment was largely seen in Johor as being partly a result of Singaporean *'Kiasu.' Kiasu* refers to the need to get 'in on' something before it is too late or so that you can be at the front of the queue. The concept is so prevalent in Singapore that it has led to a popular comic strip, Mr *Kiasu*. Many Johoreans use the term to discuss the frenzy with which Singaporeans first began to come shopping in Johor Bahru and to buy into the retail marketplace.[37] This frenzy has since subsided. In fact, Johor Bahru's retail space market is now quite soft. A key reason for the decline in the market for retail space was the sharp decline in visits from Singaporeans. Visits to Johor declined by about 40% by mid-1992 (compared to 1991) due to a number of geopolitical 'irritations.'[38] Despite the current decline, the boom times illustrate the manner in which land uses such as retailing can be based on social fads and perceptions rather than sheer availability. Retail land needs to be seen in much more contextual terms than simply a gross 'endowment.' A similar point may be made about residential and recreational lands.

8. Residential and Recreational Lands

The nature and amount of land given over to residential or recreational land use is an important facet of both the Growth Triangle's development and to mega-urban trends more generally. Many developing Asian societies are seeing an explosion in the size and spending powers of new middle classes (recall the graphic representation of Singapore real wage

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[37]/ During an interview, this point was explicitly made by JSEDC's Director of Corporate Planning.

[38]/ See New Straits Times, 6/5/92:3; see also data in Johor Operational Master Plan 1992:6-5 indicating a 28% decline in the number of visitors from 1990 to 1991.

increases in Chapter VI). These individuals are for the first time finding it possible to pay for land or recreational activities on the outskirts of the booming urban cores.[39]

The Singapore case is notable for at least two reasons. First, in Singapore the suburban dream needs also to be situated in the context of an international hinterland as there is really no internal suburban frontier as such. Second, the government has quite a bit of play in the residential market. The government exerts a good deal of influence through: 1) very high levels of public housing (the highest in the world); and 2) the regulation of Central Provident Fund (CPF) expenditures on housing purchases (the CPF is government enforced savings plan).[40]

Approximately, 70% of Singaporeans own their own flats (actually 99 year leases). Further, about 85% of the housing stock in Singapore is built by the state.[41] The private sector can not compete on price with the government's Housing and Development Board (HDB) and so tends to be more 'up-market.' Privately developed housing is, in part, used by the very large expatriate corporate community and Singapore's wealthier elite. Typical rents for privately developed quarters in the exclusive districts '9' or '10' would range between S$ 8,000 and S$

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[39]/ In Singapore, unlike Bangkok for example, the flight is not from the chaos and harsh conditions of the city, but rather is more likely a get away from its cloistered nature.

[40]/ This control is very important. As the CPF amounts to about 35% of a person's salary, it gives the government discretionary powers over the residential land market (ie. who can buy what and when). For example, a government policy shift in terms of CPF eligibility and years remaining in leases which affected lending instantly increased the value of some older apartments which were nearing 75 years left on their leases. - Straits Times, 19/11/92:36.

[41]/ See Chua Beng-Huat (1990) "Not Depoliticized but Ideologically Successful: The Public Housing Program in Singapore," International Journal of Urban and Regional Research, 15 (1), pp. 24-41. This level of public sector dominance is expected to grow in the future. Chua suggests that the level of private housing will fall to 5% by 2030 (page 26).

15,000 per month[42] where as HDB flats would be about S$ 600-1,000 (usually in outlying areas).

Thus, Singapore displays something of a dualistic land rent structure in terms of residential space. This structure is characterized by affordable (indeed cheap) public units and expensive, prestigious private sector developments. This combination has:

> 1) left the middle class with available capital to invest in housing (due to inexpensive state housing), but a lack of supply of 'private' mid-range housing.[43]
>
> 2) made the cost of private sector housing in Singapore beyond the reach of most, but developed the prestige of private house ownership.

In the late 1980s and early 1990s, cash-rich middle class Singaporeans jumped at the chance to own 'private' housing in Johor and Batam.[44] Several housing developments on Batam sold-out in hours or days of their tendering -- the majority of sales being to Singaporeans. It was estimated that by 1990, Singaporeans had purchased leases on 50% of the residential land on Batam.[45] The boom tends to be in weekend homes or investment property for Singaporeans.[46]

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[42]/ Purchase costs in this sector have reached S$ 550 to S$ 850/sq. ft. - Singapore International Chamber of Commerce (1991) op cit, page 45. Ironically, the development of the Growth Triangle may serve to further push up housing costs for expatriates as demand increases. -Business Times, 26/2/91:1.

For terrace housing, the prices are even higher. Chi-Wing Ho has outlined how the price of such private housing in Singapore is amongst the highest in the Asia-Pacific and the Americas. Chi-Wing Ho (1990) "Policies and Performances: The Real Estate Markets in Hong Kong, Singapore and West Coast Cities," Review of Urban and Regional Development, (2), pp. 64-83, pages 68-69.

[43]/ This lacuna was presented as key in an interview with DBS Land's Chief Planner in December, 1992.

[44]/ Mr. Muhhammed, owner of a four-room HDB flat in Singapore and a recently purchased Bungalow outside of Johor Bahru, exemplifies the Singaporean demand. As he noted, "People like me can not dream of owning such a home in Singapore." - Cited in Sunday Times 28/10/92:15.

[45]/ Business Times, 9/10/90.

[46]/ In 1990, 85% of Singapore investment in Batam was in tourism and housing. - BIDA data, cited in Pangetsu (1991) op cit.

A Debenham Tewson study reported rentals for a 3-bedroom bungalow on Batam are about S$ 2,300/month, this generates a 13% return on an investment of S$ 200,000 (compared to bank rates of under 2%).

Within the broadly conceived demand, there is also some apparent ethnic differentiation within the residential 'get-away' market. Chinese Singaporeans tend to prefer Batam and the Riaus while ethnic Malay Singaporeans are more likely to move to Johor.[47] Social forces are as important in the restructuring of regional land markets as is the sheer availability of land.

Two important further points need to be made in terms of the market for residential space in the Growth Triangle. First, an important aspect of the residential land market is the need to have attached amenities. This is why so many developments include golf courses. The linkages between golf courses and residential developments raises another point: the speculative potential of developments. Recreational memberships, such as those at golf courses are extremely expensive in Singapore. They have also accrued value tremendously over the last 10 years. For example, memberships at Singapore's Tanah Merah golf club increased in value from S$ 7,000 in 1982 to S$ 155,000 in 1993.[48]

Middle class Singaporeans also view their purchase of memberships in Johor and the Riaus as assets.[49] They have been consistently reminded of the transformation of their own landscape and are especially capable of seeing the potentials lying in the as yet underdeveloped areas of Johor and the Riaus. It is the promise of the past repeating itself which attracts residential buyers and which underpins the production of today's landscapes.

9. Social Changes in Singapore

There is more than bid-rent gaps at play in the growing attractiveness of the lands of

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Although asset appreciation is low for the buildings themselves due to poor standards, the key is in land value. Singapore Report on the Growth Triangle, 27/2/92:2. Note also that construction costs doubled from 1989-92.

[47]/ Interviews with DBS Land and in Batam and Johor.

[48]/ Asia Inc., 2/10/93:76.

[49]/ Interview with DBS Land Chief planner and various Singaporeans who owned land in Johor or Batam.

Johor and the Riaus. The land is being reconceived in terms of social shifts within Singapore. Investors see opportunities in golf course development (due to the golfing craze in Singapore), residential space (due to the desire for weekend get-aways from Singapore) and industrial space (due to the social marginalization of some industrial activities in Singapore). These niches are emerging along with the escalation of the Singapore economy and the move towards higher order services.

Investments based on perceived scarcities, growing land values and social changes in Singapore are reconfiguring the space-economy and the landscape of Johor and the Riaus. The land bases of the two areas present the possibilities for such investments, but do not explain their emergence and detailed characteristics. It would also be unwise to over-generalize about what 'land' means in each of the two peripheral nodes. There are important peculiarities to the availability of land in each of these two areas which are crucial to the unfolding of the region.

C. REGIONAL LAND MARKETS

1. Batam: So Close Yet So Far

The beguiling feature of Batam in regards to the land market has always been the huge gap between land prices on the island and those in Singapore just 20 kms away. It was not until the island was drawn into the ambit of Singapore and its global connections (i.e., through circulation) that the local land market was fully activated. This spatial transformation has social roots. The 'location' of land on Batam is socially produced by changes in regulations and transportation facilities (i.e., Batam has always been in its present location, but social changes have affected its accessibility and desirability). The (re)emergence of the region has repositioned the way land on Batam is seen and used. Yet existing patterns of ownership and

regulation were, and are still, crucial to the manner in which the island's land base is being incorporated into the regional ensemble.

Except in the older settled areas, the new land use regime of Batam is characterized by large scale projects. The lack of numerous pre-existing small land-holders (most of the sparse population base was made up of fisher-folk) made the acquisition of land and its development into large scale projects much easier than might otherwise have been the case. The capacity to embrace large scale projects was enhanced by a Presidential decree evacuating local land rights and empowering BIDA to control the development of all lands. State mediation is fundamental in the interaction of (global) capital and the island's (local) land base. Yet, even given the broad brush-stroke of a controlled and malleable land base, there are still important local variations in the land use environment.

Despite the fact that the land on Batam is largely controlled by BIDA, there are some serious ownership issues to be resolved. Land ownership in Indonesia is not as 'transparent' as it is in Malaysia or Singapore. In Indonesia, there are a number of different kinds of rights to a given piece of land.[50] The bottom line is that foreigners can not own land in Indonesia and at best can hope for 30-year leases with possible extensions.[51] The revelation of this fact came

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[50]/ Under the Basic Agrarian Law of 1960, there are a number of categories of land rights: 1) *Hak Milik* (Right of Property) is the most secure. It is inheritable and may be mortgaged. It is only for Indonesian citizens; 2) *Hak Buma Usaha* (Right of Exploitation) is the right to use state-owned land (less than 25ha) for 25 years for agriculture. It is only available to Indonesian nationals and 100% Indonesian companies; 3) *Hak Pakai* (Right of Use) is the right to use state-owned land or other land under customary law. The right is for a specific time frame and purpose. *Hak Pakai* is what BIDA can offer investors; and 4) *Hak Guna Bangunan* (Right of Building) involves the right to construct buildings and use them for 30 years. On Batam, there is no *Hak Milik* and BIDA allocates all land uses. Richard Mann (1991) Batam Step by Step Guide for Investors, Toronto: Gateway Books, page 53.

[51]/ The Indonesian government has moved to ameliorate this situation be relaxing laws on foreign land ownership in an effort to increase the attractiveness of places like Batam. - Straits Times, 24/6/94:44.

as something of a shock to those (especially middle class Singaporean residential-land buyers) involved in the first land boom in Batam in 1989.

Importantly, such a constraint plays out differently for residential and industrial users (again emphasizing the need to stay away from generalizing about land factor endowments). The land ownership issue is much more important in terms of the residential land market than for industrial users, for whom the asset value of the land is less important than are its location and ongoing costs.

The limitations on foreign ownership of land have enhanced the position of Indonesian developers who can link up with foreign investors (and thus accrue rent from their 'local' nationality and political connections).[52] The uncertain land ownership situation also assists industrial estates, such as Batam-Indo, in gaining some oligopolistic powers in attracting tenants to their secure bases.

The attractiveness of land in the Riaus needs to be framed within the context of the regulatory environment and the regional transformation (e.g., escalating costs in Singapore and growing transportation links). Indeed, one might even go a step further and suggest that when seen as regulatory niches, new spaces for economic activity have been produced throughout the Riaus as 'spot zoning' of free trade status is given on a project rather than locational basis (as outlined in Chapter V). New regulatory spaces within the Riaus are being opened up (or being produced) for and by investment (on this point it is useful to note that BIDA acts as both a planning agency and a developer).

The spread of the land market throughout the Riaus is being driven by the developments on Batam and the upgrading of transport linkages (often by local entrepreneurs). As noted in

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[52]/ As one investor noted, "The most crucial thing is to have the right contacts with the right partners." Carolyn Lim (1992) "Batam Boom," Singapore Business, April, pp. 32-37, page 33.

Chapter V, Batam is being 'expanded' by state investment in bridges to nearby islands and the selective designation of bonded zones on other islands. This is a intriguing development in that what usually strikes visitors to the island is the sparseness of development and the expanses of empty spaces. The expansion of Batam's land base is part of the process of maintaining momentum and of keeping a frontier of rapid appreciation (extensive globalization).

What is at stake in the Batam situation is not so much land, but space. Space with suitable regulatory structures and connections. This space is socially produced, but it is also fragmented. On Batam one should also note that when considering the 'geography' of land availability as a 'factor endowment,' it is important to note that the landscape is actually composed of multiple layers of often overlapping and conflicting land use 'spaces.'

There are a number of conflicting demands on Batam's limited land base. The island is somewhat Janus-faced in that it is attempting to simultaneously develop both tourism (relying on natural amenities) and massive industrialization (which tends to consume the same). The potential conflicts inherent in such a mix are critical facets of the future land use regime on the island and are as important as the shear availability of land.

The land situation on Batam is affected by numerous subtleties which are of more than just passing interest. They lie at the core of the island's development and heavily shade the grossly conceived concept of 'land endowment.' The situation in Johor is similar, but different.

2. The Land Situation in Johor

As outlined in Chapter III, the landscapes of much of southern and western Johor were brought into the orbit of the global market place via the plantation sector and close ties to Singapore. Land value tended to accrue from its productive use (e.g., as rubber lands). Today, exchange values based on a much wider set of (socio-spatial) variables underlay the

transformation of the landscape. The new land uses, however, are woven from threads already partially in place.

Johor's traditional land-use regime was composed of a number of divisions. Ethnically, the Malays or *Bumiputra* tended to small-holdings in rural areas. The Chinese owned a good deal of land in the towns (even 1992, it was suggested that only 2% of the land in JB is owned by *Bumiputra*[53]) and came to own an increasing number of estates.

The key development in terms of the plantation sector today is the declining returns to plantations and their amenability to conversion to other uses. In case after case, one notes that new developments in Johor are occurring on the sites of old plantation estates. There are four key reasons for this: 1) economic difficulties facing plantation concerns (i.e., high labour costs, soft markets and high land asset values, as outlined in Chapter IV); 2) the ease and speed of redevelopment (i.e., quick land assembly and clearing); 3) the tendency for there to be pre-existing access roads; and 4) the government's drive to increase its control over industrial establishments for environmental and taxation reasons has led to decrees and policies pushing industries into centralized industrial parks; the prime sites for these parks are old plantations.

Plantation lands in Johor provide suitably large spaces for multi-faceted developments (thus their character is important to their use). Plantations are being converted into integrated new towns with golf courses, mini-industrial estates, town centres and other amenities.[54]

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[53]/ Straits Times, 3/2/92:9.

[54]/ For example, Dunlop Estates Bhd will spend at least M$ $500 million to develop the recently-acquired Pengerang properties in Johor into a 'township of its own.' Director Anuar Hamdan said the properties, comprising 1,875 hectares of agricultural land, would be developed in stages and would include hotels, resorts, marinas, golf courses, a health farm and residential areas... Its close proximity to Changi in Singapore, which is about a 30-minute boat trip away, would be its greatest advantage. The properties, in the Kota Tinggi district (see Figure 4.1), were bought from Pengerang Jaya Pte Ltd for M$ $136.9 million.... - New Straits Times, 29/06/92:19.

The purchase of plantations lands by the Multi-Purpose Group (linked to the Malaysian Chinese Association, a coalition partner of the ruling UMNO) was said to reasonable when seen in terms of the potential future development of the area and its proximity to the Growth Triangle. (Mal) Business Times 7/03/92:17.

Amcol, originally a florescent lamp maker, was one of the first Singaporean firms to get into the Malaysian leisure sector.[55] It became a vehicle for land acquisitions by some of Asia's most well known investors[56] and is still a major land developer in the Growth Triangle region.[57] It bought a Malaysian company which owned a 172 ha former plantation site for S$ 20 million. Together with a Japanese partner, it has developed the M$ 300 million Anah Bukit recreation complex called Palm Resort which will include three 18 hole golf courses and two resort hotels. The investment is yielding quick returns. "The sales of the bungalow lots at Anah Bukit and the successful membership recruitment for Palm Resort contributed significantly to Amcol's improved profits," (up to S$ 36 million in 1990, four times the 1989 figure).[58]

It is the intermingling potential of large scale capital (consortia often heavily based in Singapore) in search of high returns and the large land parcels in plantations which is transforming land use regimes (not simply available space).[59]

The pressure of demand for land (especially close to Singapore) is so intense that a major land reclamation project is to be started in the waters separating Johor Bahru and

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[55]/ The company is now among the 15 largest firms in Singapore. It is still involved in manufacturing and distributing Sony products in Indonesia and has moved some manufacturing (cassette tapes) to Johor. Business Times, 13/6/91:3. By 1992, about 95% of the group's business was done outside of Singapore. Singapore Business 4/92:67-69.

[56]/ These include New World Developments and Suntec Investments (an 'investment club' of Li Ka Shing, Cheng Yu Tung and Run Run Shaw). See Business Times, 2-3/11/ 91:4; Straits Times, 6/12/91:47; Straits Times 1/7/92:39. After the announcement of the possible involvement of New World, the share price jumped 25% in two weeks. Business Times 14/11/91:6.

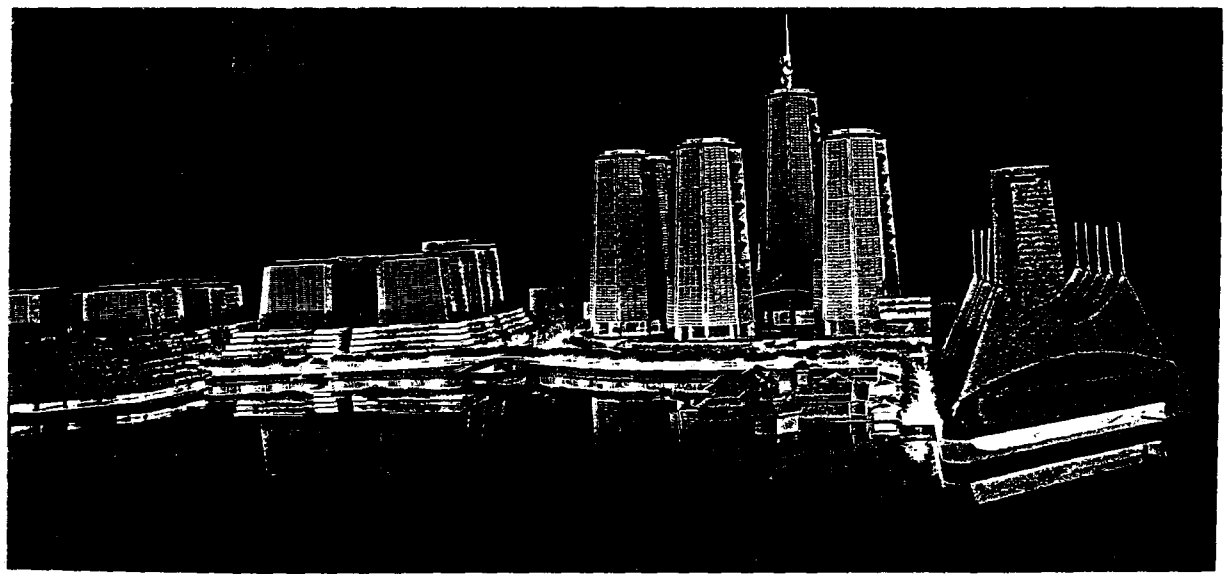
[57]/ Straits Times, 1/4/91:40.

[58]/ Amcol Holdings (1991) Annual Report 1990.

[59]/ This is not only meant to refer to investment from Singapore. For example, the Dunlop Managing Director has stated, "The region around Southern Johor allows us to expand there as the Klang Valley region has almost reached a saturation point," - Business Times, 7/03/92:17.

Singapore (and next to the present causeway).[60] This project, to be called J.B. Waterfront City, will create 40 ha of new land in a state once noted for its vast tracts of inexpensive land. It is expected to cost some S$ 2.5 billion.[61] The new CBD will involve the production of 8 million square feet of commercial space which is roughly 266% of JB's current total.[62] As Singapore's Straits Times put it, "It will be the logical outcome of, and gives concrete expression, to the Growth Triangle."[63]

Figure 9.4
The J.B. of Tomorrow



Source: Johor Coastal Development Sdn. Bhd. (January, 1993) Development Proposal

[60]/ The economic logistic of this move seems compelling. "Assuming land reclamation costs of M$ 200 million, the land will cost Pilecon M$ 380 per square metre. Prime land in Johor costs around M$ 2,500 to M$ 4,000 psm." - Business Times, 24/3/92:1.

[61]/ Sunday Times, 4/4/93:1.

[62]/ As the developer notes "...Johor Bahru has a unique opportunity to 'recreate' itself," - Johor Coastal Development Sdn Bhd (1992) "JB Waterfront City Proposal."

[63]/ Straits Times, 19/12/92:23. The new centre also includes a design for a Mass Rapid Transit station from Singapore.

What is also apparent in the Johor case, much like in Batam, is the importance of government intervention in shaping the land market. The greatest single agent in terms of land use patterns is undoubtedly JSEDC which acts as a planner, as a support service for developers and as one of the state's largest developers as well as operating the majority of industrial estates in Johor.[64] It also is the chief owner of Johor Bahru's new five star Putari Pan-Pacific and the modern Plaza Kotaraya Shopping Centre. JSEDC, as the overarching authority, is the key player in the land use regime of the state.[65]

Second, the state has also interceded in the land market through regulating foreign ownership. After the early land boom of 1990-91, the Johor government stepped in to limit the levels of foreign ownership. This policy was, however, quite flexible in that restrictions varied depending on the type of investment. As a result of these kinds of policies, the types and locations of lands available to investors have been constricted by state policy and political machinations. Land endowment must be seen through such a lens, it is not simply a question of available land.

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[64]/ JSEDC's involvement is now so wide-spread that Mentri Besar Muhyiddin has said, "The JSEDC has grown too large and there is a need for a separate body to take charge of all matters pertaining to the State economy." - New Straits Times, 18/06/92:02.

[65]/ On a smaller scale, there are also a number of regional governmental agencies heavily implicated in affecting land use plans. This is particularly apparent in JEHORA which was originally a social agency in the once depressed South-east of the state and which is now a key land developer. JEHORA is involved in almost all development in southeast Johor and is a central player in the Desaru development. The large role of agencies like JSEDC and JEHORA, is reflective of the government's policy of increasing *Bumiputra* and state involvement in the development boom. Each foreign investor must link up with a local (Malay) agent. In most cases, this is done through a link up with a state enterprise. Again, the central role of the local state is crucial to the extensive globalization process.

Johor's 'land' endowment is made of many fragments with many encumberments.[66] Each fragment presents investors with a different set of elements. In turn, differing layers of investment (in purpose and scope) impinge in differentiated patterns on the landscape -- thus the mayhem which meets the eye (as exchange comes to replace use value) as market embrace facilitates differentiation. The mix of land utilization patterns which has been facilitated by circulatory transformation and market embrace is important to the heterogeneity which characterizes mega-urbanization.

D. PRODUCING LAND MARKETS

As I have argued, even though land is imminently 'fixed' it may still usefully be seen as a 'mobile' factor endowment in that its positioning within a grid of social dynamics is very fluid. The valuation of land and its use is also deeply affected by the interlinked dynamics of market shifts and accessibility. Both of these elements are socially constructed. When spatial aspects become the key market attributes, circulation also becomes key. The imposition of a 'space' biased logic framed in economic margins has profound local repercussions.

Harvey gives this issue more detailing in his pursuit of the impact of capital circulation on the pulverization or creative destruction of landscapes.

> Consider, second, how pressures within the circulation of capital lead to the systematic pursuit of the annihilation of space by time. Again, we encounter a contradiction. Space can be overcome only through the production of space, of systems of communication and physical infrastructures embedded in the land. Natural landscapes are replaced by built landscapes shaped through competition to the requirements of accelerating accumulation. The 'pulverization' and fragmentation necessary to homogenize space have to take definite forms. Landownership has to be rendered subservient to money power as a higher-order

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[66]/ H. Brookfield (1990) has suggested that the presence of *Bumiputra* reserve lands is a key to The Coming of the City to the Village in the Klang Valley. He argues that the reserve system has artificially skewed land use regimes and led to a movement of industry to the countryside. This tendency is not apparent in the Johor case as there are fewer reserve areas. H. Brookfield (1990) The Coming of the City to the Village, Kuala Lumpur: Oxford University Press.

> form of property, and land becomes a form of 'fictitious capital;' thus, control over the production of space is passed to the interior of the credit system. The uneven development of space then becomes a primary expression of its homogeneity.[67]

Harvey is astute in pointing to the close interdependencies between market embrace and emergent heterogeneity. He suffers, however, from a tendency to reify capital (or 'money power'). While his emphasis on money or capital as a 'concrete abstraction' allows him to feel this move is warranted, a closer look at the mechanics of change might yield greater insights into regional production and as to why the land is being pulverized.

The key to Harvey's argument about landscape transformation involves the implications of the rent which can be achieved from lands (largely based on their future exchange value). This nexus is an important link between the land base (as a commodity) and what he refers to as fictitious capital,[68] (i.e., debt which can be leveraged from land values). In Singapore, the re-evaluation of Fraser and Neaves' land assets falls within this category. Yet, there are also nuances to this model within the Growth Triangle case.

The 'fictional' capital which is reforming the land-use regions of Johor and the Riaus is actually a result of capital surpluses in the city-state (as discussed in the next chapter). It also needs to be noted that agents of capital in the region take many forms with differing biases. I will address these elements in the next chapter under the 'category' of capital.

E. SUMMING-UP

The 'mayhem' of the mega-urbanization process is piercing ever more deeply into the countryside. The process of spatial transformation and land market formation are deeply linked. Increasing demand pushes road works which in turn increase values (such as the bridges in the

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[67]/ D. Harvey (1989a) The Urban Experience Baltimore: Johns Hopkins, page 191.

[68]/ D. Harvey (1982) The Limits of Capital, Chicago: University of Chicago Press, pages 366-369.

Berelang Sector). The transportation routes are bringing more than lorries and new products to village life, they are bringing a new and convulsive marketplace.

However, despite the apparent differentiation in the landscape, the formerly rather more peripheral areas of the region are undergoing a common experience. Land utilization is increasingly based on exchange value rather than use or productive value. The exchange value of land is derived from its relative location in a grid of criteria which are usually socially constructed. In this way, the importance of landscape as such is being replaced by an economic space produced by social change set in the context of the changing spatialities of economic activity. This observation leads to a number of important points.

First, the category of 'land' needs reconsideration. In turn, the category land should not be viewed as a closed set. The interweaving of capital and the land base (and labour markets) in the land use regime again illustrates the fuzzy boundaries between factors of production. For example, land investment is a form of capital, therefore, its price trends and liquidity are as important to purchasing decisions as are its low cost and/or availability. Having said this, it also needs to be noted that the category of the land market is an extremely mixed concept

Second, regional land markets in the regions margins are driven by and seen in comparison and connectivity to Singapore. Yet, while land use regimes are indeed affected by 'comparative' costs, these are produced along with the region. Land prices are reflective of the increasing spatial centrality of Singapore in terms of global circulation of goods, capital, people and information (discussed in Chapter IX). Even though it appears fixed, the land base is being socially produced by agents such as state apparatuses and developers (e.g., JB Waterfront City or Singapore's land reclamations).

Exchange, and exchange value, are almost by definition bound to circulation. This is so in the texturing of the spatial fabric and in the distantiated market coming to bear on (and thus 'positioning') any given parcel of land. More than anything else, it is the impact of the deepening of the money economy, capital formation and changing circulatory capacities which are altering land use patterns (as it has worker's jobs). Regional capital resources are the topic of the next chapter.

CHAPTER X

COMPARATIVE ADVANTAGE AND CAPITAL: THE BOUNDARIES OF CAPITAL?

A. THINKING ABOUT CAPITAL

Capital penetration, investment and valuation have been critical to all of the developments outlined above. It is investment which transforms land use and employment possibilities. As capital accumulations in space are very important elements in the development of regional economies and landscapes, it would be foolish to fully discount the 'capital as endowment' argument. However, some important caveats need to be made.

First, it is quite wrong to consider capital as strictly an 'endowment.' It is, in all of its many forms, socially produced. Second, while regional imbalances in capital formation are important, an over-emphasis on the fixity of capital may lead one's eyes away from other important attributes -- such as its mobility.

Although different incarnations of capital have different levels of mobility, it is important to consider the nature of generally increasing levels of capital fluidity on global and regional scales in order to apprehend the spatialities of contemporary global capitalism in specific milieux. Although capital formation and distribution are crucial to the generation of

the concrete realities of the regional economy (e.g., re-contextualization of land and labour), capital is also the most fluid and theoretically elusive of the factors of production. Clearly, attempting to grapple with something as tremendously complex and labyrinthine as the meaning of capital which has for so long challenged thinkers[1] is beyond this fragment of the thesis. This may in fact be reason enough to discount the supposition of 'capital' as a unitary factor of production. However, it still seems useful to draw on a few themes surrounding the meaning of capital as a way of illuminating both the emergence of the Growth Triangle region and its global context.

In its widest meanings, the term capital ranges from factory machinery (i.e., capital stock) to the money in one's pocket and bank account (e.g., money supply) to 'fictitious capital' (e.g., stocks or debt). It is thus highly variable in its aspect and its liquidity and one needs to work hard to define what is meant by the term and how the ascribed meaning may affect its geographical profile.

The Dictionary of Human Geography defines capital as a *factor of production* as:

> ....all things deliberately created by humans for the purpose of production. This includes the physical plant, buildings and machinery, i.e., fixed capital. It also includes the circulating capital in the form of stocks of raw materials (components, semi-finished goods, etc.).[2]

From this perspective, which really only focuses on the manifestation of 'productive capital,' one can take in the importance of social production and differential mobility. Yet this definition is also too limited in its scope as capital is not solely bound to the circuit of production.

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[1]/ See for example, D. Harvey (1982) The Limits of Capital, Chicago: University of Chicago Press; or G. Simmel (1991) "Money in Modern Culture," Theory, Culture and Society, 8, pp. 17-31.

[2]/ R. Johnston et al (eds) (1991) Dictionary of Human Geography, Oxford: Basil Blackwell, page 157.

Capital is also found in the form of finance capital (securities, etc.) and merchant capital (i.e., trading and 'money'). The multiple avatars are very important because it is the 'switching' between various manifestations of capital (and locations) which is so critical to Singapore's evolution and the development of the region as a whole. Isolating productive capital in a systemic sense (i.e., bounding it) thus cuts one off from a wider possible understanding of the processes of capital formation and concentration. The same may be said for the process of bounding 'capital' in a spatial sense (i.e., as an endowment of a delineated region).

Capital has a fluidity which is (though unevenly so) much more mobile than land or labour. As Harvey and Castells have so consistently argued, capital fluidity versus social entities is an increasingly critical social issue.[3] Although capital 'flows' may not be as 'foot-loose' as Castells, in particular, would argue, the level of capital movement is growing (it is part of the new 'winds' of global circulation).[4]

Looking at more liquid forms of capital to begin with, it becomes very difficult to suggest where a given fragment of liquid capital physically resides (due to the speed with which it may be transferred and the presence of 'fictitious capital'). The potential scale of any given 'region' in terms of its 'range' of capital can in fact be viewed as global.[5] It is this fact which allows for the tremendous levels of investment and concomitant growth rates in certain growth poles in Asia (and why 'open regionalism' is important).

To restate the case, the potential capital which can be invested in any one locale may

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[3]/ See M. Castells (1989) The Informational City, Oxford: Basil Blackwell; M. Castells (1983) The City and The Grass Roots, Berkeley: University of California Press; D. Harvey (1989c) "From Managerialism to Entrepreneurialism in Urban Government in Late Capitalism," Geografisker Annaler B, 71 (1), pp. 3-17.

[4]/ See for example, Richard O'Brien (1992) Global Financial Integration: The End of Geography, London: Pinter.

[5]/ See Hepworth for an interesting discussion of the way communication spreads the location of capital. M. Hepworth (1989) Geography of the Information Economy, London: Belhaven Press.

now be considered as virtually limitless as long as the facilities to transfer and monitor investments are in place. Singapore fills this monitoring role at the heart of the Growth Triangle. In turn, the Growth Triangle represents a marker or lure to draw capital into Singapore's orbit. This is a source of the intensity with which the Growth Triangle is being pushed. Once a location or area is selected as a useful investment locus, then, through an increasingly common set of standards, it may come to be seen as optimal by other sources of capital (ergo the neo-classical modelling and marketing of the Growth Triangle).[6]

As I have argued in the introduction, the emphasis on capital mobility cannot be taken to imply a decline in the utility of examining specific locales. Indeed, it is largely in marketplaces that capital is 'realized' (and thus 'localized'). Second, not all capital is fluid, it can be fixed in place (e.g., built environment and capital stock). The siting of capital is fundamental to the production of spaces and geographies. It is the tensions between localization and globalization which yield the greatest insights. Such tensions are especially strongly felt in Singapore.

B. SHADES OF SINGAPORE'S FINANCIAL MARKETS

1. Introduction

Capital surpluses in Singapore, spilling over into Johor and the Riaus, are driving regional reformation.[7] However, understanding the development of the Growth Triangle requires more than a consideration of over-abundant capital. The nuances of the capital

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[6]/ By way of anecdote, Rodan relates a comment about Singapore from the head of a disk drive company, "We did not look at Taiwan and we did not want to waste time looking for a site. So we followed the leaders and came here." G. Rodan (1985) Singapore's Second Industrial Revolution: State Intervention and Foreign Investment, Kuala Lumpur and Canberra: ASEAN-Australian Joint Research Project, page 46.

[7]/ This is not to say that capital resources in Johor and the Riaus are not important but rather that it is the flow of funds from and through Singapore which underpin the development boom (i.e., extensive globalization).

accumulation process in the city-state underpin the texture and trajectory of the regional reformation as a whole. As in the land and labour markets, the government of Singapore's role is crucial.

Figure 10.1
Monetary Authority of Singapore: Protecting the Currency of a Global City-State

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Source: Straits Times, 27/9/92:2

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2. State Control

Perhaps the critical aspect of the role of the Singapore government, in terms of the global-local nexus, is the way the state mediates between local and global capital circuits. Mediation involves a strategic balance of isolation (e.g., sanctions on 'internationalizing' the

Singapore dollar[8] -- see Figure 10.1) and integration (e.g., heavy reliance on foreign investment to fuel growth). Bryant has called this the "separation fence dilemma." He writes,

> A tension between the goal of promoting the prosperity of the national economy and the goal of shielding the economy from external forces inevitably exists, to some degree, for an open economy. This tension - 'the separation-fence dilemma' - is especially great for a small, very open economy like Singapore's.[9]

The role of mediator is both a prime function of the state and a source of its power. As Castells et al have written,

> The set of conditions for investment and growth in the Singapore economy boils down to a simple and fundamental mechanism: *the state seizes directly and indirectly a substantial share of the value produced and allocates it for investment or savings along carefully defined economic, social and political objectives.*[10] [Emphasis in original]

The government of Singapore is far and away the most important player in the distribution of the city-state's financial resources. It has achieved this role through close regulation of money markets, the extraction and control of surpluses and through the success of the many government linked companies (GLCs) ranging from banks to shipyards to the national airline. Lim and Pang have suggested that in the early 1980s, "more than half of domestic income passed through the government's hands in one way or another."[11] However,

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[8]/ For a review of the strident proclamations of the Monetary Authority of Singapore see Far Eastern Economic Review, 17/10/91:80 or Straits Times 27/9/92:2. It is of note that the first approved S$ loan for an overseas project was given to Batam-Indo. - Business Times, 17/3/92:1.

[9]/ Ralph C. Bryant (1989) "The Evolution of Singapore as a Financial Centre," in K.S. Sandhu and P. Wheatley (eds.) Singapore: The Management of Success, Singapore: ISEAS, pp. 337-372, page 437. See also Rosamund McDougall (1989) "Conflict and Control," The Banker, June, pp. 95-98.

[10]/ M. Castells, L. Goh and R. Y-W Kwok (1990) The Shek Kip Mei Syndrome: Economic Development and Public Housing in Singapore and Hong Kong, London: Pion, page 170.

[11]/ L. Lim and Pang Eng Fong (1986) Trade, Employment and Industrialization in Singapore, Geneva: ILO, page 11.

while the power which accrues to the state from its financial might has local manifestations and roots, it must also be set in a global context.

As noted above (Chapter VI), Singapore often runs trade deficits and the ability of the state to extract financial resources is predicated on the ability to attract foreign investment funds.[12] This nexus has allowed the small city-state rapid economic development (because of the potentially unlimited resources), but also increased the exposure to the risks of shifts in global financial flows.

To date, the traditional role of Singapore as an international investment haven is being maintained. Even in manufacturing, FDI levels increased from S$ 1.6 billion in 1988 to S$ 3.9 billion in 1993.[13] Intriguingly, the huge influx of investment into Singapore would seem to be running headlong into an apparent over-accumulation episode.[14]

3. Over-accumulation in Singapore

A key feature of the Singapore financial market is the presence of huge local surpluses. The surfeit comes in many guises. For example, in 1992, official foreign reserves stood at US$ 11,000/capita (about US$ 30 billion[15]), and the national savings rate was at a stratospheric 45%.[16] The savings pools would seem to be finding it increasingly difficult to find suitable

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[12]/ See Castells et al (1990) op cit, page 204 for a discussion of the tensions between the high savings rate and the need to attract foreign capital.

[13]/ Investments are split between chemical and electronics (computers). Economic Survey of Singapore 2Q, 1994, page 78; see also the article in Asian Wall Street Journal 8/2/93:19.

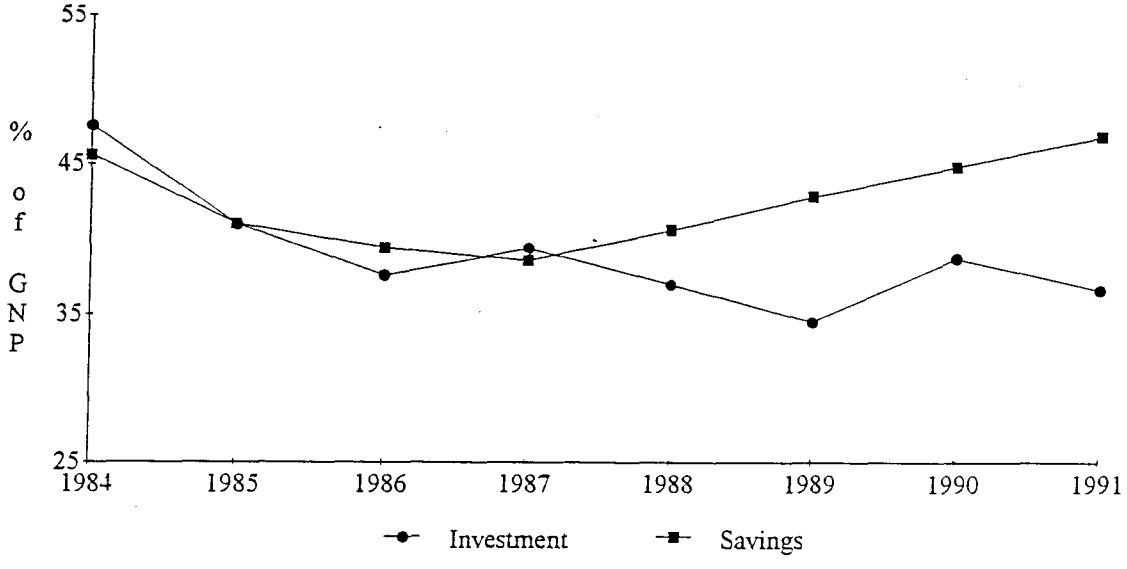
[14]/ The problem of over-accumulation has been prevalent for some time and was noted by the 1986 Economic Committee. Republic of Singapore, Ministry of Trade and Industry (1986) The Singapore Economy: New Directions: Report of the Economic Committee, Singapore, page 7.

[15]/ Currently total reserves are in the range of US$ 50 billion -- an amazing level for a nation of some 3 million people. With recent constitutional changes, these reserves can not be drawn on save by presidential decree. It is difficult to imagine a North American city having anything like such a stock pile of resources.

[16]/ The high savings level is a result of government intrusion into housing markets and the 'Central Provident Fund' (CPF) which forces savings on the population. The desire for a high savings rate expressed in the CPF has its

outlets within the economy.[17] A savings/investment gap opened up in 1987 (see Figure 10.2) and continues to suggest the onset of an over-accumulation crisis.

Figure 10.2
Singapore's Savings - Investment Gap
(1984-1991)



Source: Monetary Authority of Singapore, Annual Report, 1992, page 29.

roots in classic development theory (generally, it was intended to provide cheap capital for local businesses and, in the Singapore case, is especially designed to provide a source of monies to support the vast housing program). However, the high savings rate which was once thought of as so critical to the nation's prosperity is losing its lustre as the government's tight control of the fruits of growth comes to seem less urgent. Republic of Singapore, Monetary Authority of Singapore (1992) Annual Report, 1991-1992, Singapore: MAS, page 29.

[17]/ This has made the government's position to enforce savings on the population (which it could then use) increasingly difficult to justify. The 'costs' of the high savings rate are beginning to enter the public debate as to what exactly savings are for. In 1992, the government began a shift away from emphasizing the need to develop housing and other mega-projects and invoked the aging population as a rationale for maintaining such high savings rates. - See Straits Times, 22/10/92:40. See also comments of Finance Minister Hu to this affect in Journal of Commerce, 25/1/93:59.

Along with the savings/investment gap, there has been a collapse in interest rates. Interest rates in 1992 were extremely low at an annualized rate of about 2.19% for a 3-month inter-bank loan.[18] Even at such low rates, big local firms with cash reserves took to avoiding borrowing, preferring to use their own surpluses which were gaining low returns (if held in Singapore's banks or invested in the Stock Exchange of Singapore, SES).

Some banks have refused large deposits unless the customer brings loans into the bank as well.[19] As banks are not allowed to lend Singapore dollars to non-residents, their situation is difficult: too much money, not enough local demand. Such pressures are reflected in the move of Singapore's banks into land development in the Growth Triangle (such as DBS Land) as they seek new arenas for investment.[20] The strategy of banking concerns moving into the regional envelope and into land development illustrates the need to be able to 'switch' capital from one form to another and from one place to another.

4. Circuits and Spaces of Capital

The problem in Singapore is that it is characterized by both huge levels of throughput of fluid capital (e.g., in forex trading) and a good deal of rigidity within national capital stocks. It is ironic that in Singapore, a city-state so premised on (international) circulation, (local) institutional, regulatory and market structures have limited the ability of capital to 'switch' from one 'circuit' to another. The concept of the switching crisis comes from David Harvey. He writes of,

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[18]/ Economic Survey of Singapore, 2Q, 1994, page 75. The current rate is about 3.88%. Note that in Indonesia the interest is around 10.5%. - The Economist, Aug 27-Sept 2, 1994, page 90.

[19]/ Business Times 10/07/92:1.

[20]/ Within Singapore, a general shift of banks into property, which is spurred on by low interest rates, was also noted by Jones, Lang, Wootton (1992) Singapore Quarterly Review, 2Q, Singapore: JLW, page 82.

> *Switching Crises*, which involve a major reorganization and restructuring of capital flows and/or a major restructuring of mediating institutions in order to open up new channels for productive investments. It is useful to distinguish between two kinds of switching crises:
>
> > a) *Sectoral Switching Crises*, which entail switching the allocation of capital from one sphere (e.g., fixed capital formation) to another (e.g., education);
> >
> > b) *Geographical Switching Crises*, which involve switching the flows of capital from one place to another. We note here that this form of crisis is particularly important in relation to investment in the built environment because the latter is immobile in space and requires interregional or international flows of money capital to facilitate its production.[21]

A number of factors have conspired to limit sectoral mobility of capital in Singapore. The primary (or productive) circuit has reached its saturation point. There is little room for investment in new machinery (recall the declining productivity woes discussed in Chapter VIII). The depth of capital already found in industry is striking. Capital stock has increased at the very rapid rate of 20%/year since 1987.[22] It now sits at almost 75% the value of output.[23] This is a very high ratio and is similar to that found in Japan.

In the secondary circuit, the completion of projects involving huge outlays on the mass rapid transit system, second airport terminal and most especially the housing program have reduced the number of internal frontiers to vent and utilize the nation's capital surplus (as outlined in Chapter IX). Average floor space built (gross floor plans of developments completed) per month declined from a norm of about 2,000,000 square feet in 1988 to only

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[21]/ D. Harvey (1989a) The Urban Experience, Baltimore: Johns Hopkins University Press, page 71.

[22]/ Economic Survey of Singapore, (various).

[23]/ Republic of Singapore, Monetary Authority of Singapore (1992) op cit, page 11.

1,000,000 in June 1992.[24] Government policies in labour and land (housing) markets are having direct implications on the realization of capital utilization.

The government also exerts a good deal of influence (inertial in this case) on capital flows through the regulation of housing purchases made with funds from individuals' Central Provident Fund (CPF) accounts.[25] For example, hundreds of millions of dollars are moved from this plan to sanctioned housing purchases (about S$ 300 million/month from January through May, 1992).[26]

The governmental provision of high levels of inexpensive public housing may be seen to boost capital reserves in the region in other ways as well. Rather than having large sums of money tied up in a residential property asset base which is so typical of world cities,[27] the money which would otherwise be locked into physical housing stock needs to seek out other arenas (i.e., to 'switch' to other forms or places) such as the stock market. Yet, this is not working.

5. The Stock Market

Despite the extremely low interest rates and a lack of other options (such as real estate or production) in 1992, Singapore's stock market was under-performing. The exchange was

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[24]/ Republic of Singapore, Public Access Data Base, Matrix P400433.

[25]/ This control is very important. The CPF amounts to about 35% of a person's salary, it gives the government tremendous discretionary powers over the residential land market (ie. who can buy what and when).

[26]/ Republic of Singapore, Monthly Digest of Statistics cited in Straits Times 18/07/92:48.

[27]/ Note, however, that some analysts have suggested the development of an inflated asset base is a key to generating local funds for enterprise development (i.e. to secure bank loans). In this way, one might point out how state paternalism is serving to undermine the professed desire to support entrepreneurs.

traditionally the leader in Southeast Asia, but seemed to be in decline (vis its primacy).[28] In 1992, the Singapore bourse had raised the least capital of any major Asian stock market.[29]

The Singapore economy, dominated by Government Linked Companies (GLCs) and transnationals, does not provide enough dynamism to keep the stock market hot and hopeful. Further, the slumber of the SES illustrates the need for a grounded regional base, despite global connections.[30] By mid 1992, turnover on the SES was about one-tenth that of its former rival in Hong Kong which was being driven (admittedly up and down) by developments in southern China. In contrast, a key part of the decline of the SES was a result of the delisting of Malaysian stocks in 1990. This deprived the SES of 42% of its capitalization as of mid 1991.[31] In 1991, the Kuala Lumpur Stock Exchange raised the most capital of any Asian market. Singapore needs the kind of dynamism found in Malaysia to support the growth of its stock exchange.

At a global scale, the timing of the decline in the SES seems less than fortuitous as a niche is opening up in the East Asian time zone (same day business in Europe and North America) for an equities market outside of Japan.[32] The juxtaposition of opportunity and

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[28]/ While the SES has picked up as of late, it is still lagging behind other regional markets and the recent growth spurt is largely due to the listing of Singapore Telecoms stocks and policies adopted by the Malaysian government to 'trap' foreign investment which has scared off investment and diverted flows to Singapore.

[29]/ Straits Times 10/12/92:39. The changing position of the Stock Exchange of Singapore (SES) has some important nuances. The first is that one still needs to note that the capitalization of the SES in 1991 was still 138% of GDP, a figure pointed to by the SES. Straits Times 17/1/92:39 citing data from SES. The market picked up in 1993 helped by the listing of a number of government linked stocks and by an important change in government regulations now allowing CPF monies to be used on selected stocks (especially Singapore Telecoms). - Economist 19/6/93:83-84; see also Euromoney, 12/93:46-47.

[30]/ Note also that the need for local markets may be less important for the truly global market centres such as London, New York and Tokyo (i.e. Sassen's global cities).

[31]/ Far Eastern Economic Review, 18/6/91:79.

[32]/ See discussion of the potential for an alternative to Tokyo in Economist, 27/6/92:12-13.

decline highlights the close links between regionalization and globalization -- a strong regional base would seem crucial even in globalizing stock markets.[33] Also, there is an apparent lack of suitable venues for stock investments within Singapore. This lacunae in local vents for investment brings the need for a spatial switch even more to the foreground.

6. Need for a Spatial Switch

The over-accumulation phenomenon is affecting all aspects of economic policy-making -- especially in the need to invest offshore.[34] The increased emphasis on Singaporean investment overseas is seen as a new kind of engagement with the global economy. This new approach has been called 'Singapore International' and involves Singapore investing abroad. [35] The government has begun a massive campaign to encourage Singaporean firms to venture abroad (pushed by none other than Lee Kuan Yew).[36] Total investment abroad in 1990 totalled S$ 22.7 billion, in 1991 the figure jumped to S$ 27.8 billion.[37]

With the development of the 'Singapore International' initiative, the Singapore government itself began to look overseas for investments. This push is being led by the

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[33]/ See Bryant (1989) op cit, page 351.

[34]/ This need has long been a feature of the Singapore government's strategy (e.g. in an effort to diversify risks) and was clearly set out in the Report of the Economic Committee, op cit, page 7.

Note that the high level of local capital reserves and small population base makes exporting (goods and services) to utilize that capital all the more crucial -- in turn drawing in more capital.

[35]/ An important factor underlying the push to invest off-shore is the rapid appreciation of the Singapore dollar. It increased sharply in value compared to all currencies save the Deutchmark and Yen during the late 1980s and early 1990s. Republic of Singapore, Monetary Authority of Singapore (1992) Annual Report 1991, Singapore: MAS, pages 15-16.

[36]/ Led, as always, by Government Linked Companies (GLCs). For example, Pidemco, a GLC, is internationalizing. It is explicitly following the government's lead. The company's chair notes that "In embarking in our regionalization process we are heeding the call of the Singapore government." Straits Times 18/12/92:48.

[37]/ Figures cited in P. Regnier (1993) "Spreading Singapore's Wings Worldwide: A Review of Traditional and New Investment Strategies," The Pacific Review, 6 (4), pp. 305-312, page 310. There is a surprising lack of data on Singapore's off-shore investments.

government holding company Tamasek Holdings which has announced plans to invest some S$ 2.5 billion abroad.[38] Its investments have been mostly in the form of portfolio holdings in developed countries. The results to date have been disappointing.[39]

7. Retreat to the Region

Having achieved marginal results from 'global' investments, the state now seems to be turning its focus towards regional investments. 'Global' is increasingly being replaced or intermingled with 'regional' in the parlance of the state.[40] Indeed, the Singapore's Strategic Economic Plan speaks of the importance of "internal" and "external" globalization.[41] The former refers to the Growth Triangle, and the latter is further abroad, but still in 'the region' where Singapore has the advantage of local knowledge.[42] As B.G. Lee has said to Singapore businesses in general,

> Your competitive advantage is that you are on the ground. If you have better expertise and knowledge of local practices, or a comprehensive regional network, you will carve out a niche for yourselves.[43]

What Lee is getting at is the retained importance of local knowledge and local relationships

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[38]/ Much of this money is to come from privatization of state enterprises. See Asian Business, 6/90:26-29; or Business Times, 19/3/91:1.

[39]/ See the discussion of some S$ 500 million in investments gone bad in Far Eastern Economic Review, 14/11/91:75 or discussion of failed investments in Silicon Valley. - Far Eastern Economic Review 27/8/92:59-60.

[40]/ See for example comments of EDB Chairman Philip Yeo on the regional imperative. Straits Times, 18/9/92:2 or Straits Times, 9/9/92:21

[41]/ See Republic of Singapore, Ministry of Trade and Industry (1991) The Strategic Economic Plan: Towards a Developed Nation, Singapore: Ministry of Trade and Industry, page 44.

[42]/ This point was also made in an interview with the Singapore Economic Development Board's Chief Planner, November, 1992.

[43]/ Straits Times 28/2/91:40.

even in a global marketplace (i.e., investment patterns are social products).[44] The importance of familiarity and knowledge comes most directly to the fore in terms of the investment patterns of the region's ethnic groups, especially the Chinese.

C. SHADES OF CAPITAL

1. 'Chinese Capital'

One needs to be wary of reifying and categorizing 'types' of capital. As I have been arguing, stark categories may simplify explanation, but hinder understanding. This said, there are broad groupings of investors with intriguing patterns of investment and relations with other broad groupings of investors.[45] First among equals in this regard is the role of ethnic Chinese investors.[46]

The role of 'ethnic capital' illustrates an ironic aspect of globalization. Despite (or perhaps in response to) the scale of the 'global economy,' personal relations seem to be increasingly important. (In Chinese, this trait is called *shinyung* or trustworthiness.)[47] These relationships are honed through a series of bonds ranging from the province of origin in China to marital links.

The Growth Triangle is in part a formal re-connection of Malaysian and Indonesian

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[44]/ See Sharon Zukin and Paul DiMaggio (eds.) (1990) Structures of Capital: The Social Organization of the Economy, New York: Cambridge University Press; or S. Corbridge, R. Martin and N. Thrift (eds.) (1994) Money, Power and Space, Cambridge, Mass.: Blackwell.

[45]/ For example Singapore does have a Chinese Chamber of Commerce which operates in a separate sphere from the 'International Chamber of Commerce.' This groups is attracting increasing attention. - Interview with SCCC, November 1992.

[46]/ See Yoshihara Kunio (1988) The Rise of Ersatz Capitalism in Southeast Asia, New York: Oxford University Press; J. Kao (1993) "The Worldwide Web of Chinese Business," Harvard Business Review, 03/93, pp. 24-36; Linda Y.C. Lim and L.A. Peter Gosling (1983) The Chinese in Southeast Asia, Singapore: Maruzen Press; Ruth McVey (ed.) (1994) Southeast Asian Capitalists. Ithaca: Cornell University Press; or Adam Shwartz (1991) "Empire of the Son," Far Eastern Economic Review, 14/03/91:47.

[47]/ J. Naisbitt (1992) Global Paradox, New York: W. Morrow.

Chinese capital with Singapore (after the tensions which came to the fore in the 1960s). The re-deployment of Chinese economic dynamism in the shadow region should bode well for Singapore's plans to maintain its role as a key hub in that circuit. The Growth Triangle represents a renaissance for many Chinese and Chinese businesses in the region.[48]

The biographies of the region's Chinese business families are characterized by a great deal of mobility and family/corporate interlocks throughout Southeast Asia.[49] The evolution of Chinese capital in the region has followed two basic pathways. In the first, fortunes made from trading, rubber and tin operations were pushed into banking concerns (such as the Overseas Chinese Banking Corporation - OCBC). In the second, wealth was accrued from close connections with *prebumi* ('native Indonesian') and *Bumiputra* ('native Malay') political figures. For example Robert Kuok, who owns Shangri-la hotels, has profited extensively from relations with FELDA[50] and Indonesia's Bob Hasan (the 'lumber king') has profited extensively from close ties with the Suharto regime. No company epitomizes the intermingling of 'ethnic' and state capital as much as the Salim Group of Indonesia.

a) The Salim Group

The clearest example of regional 'ethnic' re-integration concerns the pervasive involvement of the Salim Group in the development of the Riaus and increasingly in the Singapore economy. I have noted examples of the group's activities in Chapter V (e.g., agri-

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[48]/ Chinese entrepreneurs and their connections to Singapore and to 'greater China' have traditionally been removed from mainstream economic policy in Malaysia or Indonesia in any positive public sense. Today, the ascension of Chinese business (especially in East Asia) and the Singapore conduit to connections in China, Vietnam and elsewhere are actually drawing interest from Singapore's Malay neighbours. - Interview, Johor State Economic Development Corporation, August, 1992.

[49]/ See Kunio (1988) op cit, pages 200-215.

[50]/ Kunio (1988) op cit, page 205. Recall also that the Kuok Group is involved in the second causeway project linking Johor and Singapore in partnership with the government of Johor. Far Eastern Economic Review, 8/11/90:60-61.

business on Bulan, Batam-Indo and Bintan Beach). The Salim group is run by an immigrant who came to Indonesia from Fukien in China in 1939 named Liem Sieo Leong.[51] Liem has extremely close relations with President Suharto and has profited tremendously from these connections. In 1993, sales of the Salim Group totalled some US$ 10 billion and account for about 5% of Indonesian GDP.[52] The Salim Group is far and away the main 'private sector' player in the developments in the Riaus.[53]

The Riaus provide a unique space which meets Liem's needs.[54] Developments there follow the pattern of monopolies which have rendered riches for Liem in the core of Indonesia (e.g., flour and cement), but does so without the public animosity which such monopolies spur. On Java, the Salim Group receives frequent criticisms for its monopolies, but Batam is far from the heart of the national economy and polity. Further, Salim is often accused of capital flight if investments are made abroad.[55] The Riaus allow for a kind of pseudo-off-shore investment. Such diversification may be necessary due to the likelihood that the group's privileged position with the government will come to an end with President Suharto's eventual retirement (after over 30 years in charge). It is likely in preparation for Suharto's departure that Liem has begun investing in Singapore and is working with the Singapore government in the Riaus.

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[51]/ The Salim Group is an incredibly complex web of interlocks (some 400 operating subsidiaries). At its zenith is Liem Sieo Leong. Around him are Djuhar Sutanto (a long time partner, also from Fujian), Sudwikatomo (President Suharto's foster brother) and Ibrahim Risjad (from Aceh). The group also occasionally involves other major figures in Asia's Chinese network including: Mochtar Riady (of Indonesia's Lippo Bank), Eka Cipta Wijaya (of Sinar Mas), Robert Kuok (from Malaysia/Hong Kong, noted above), Li Ka-Shing (Hong Kong property), Dhanin Chiaravanont (of Thailand's massive Charoen Pokphand group), and Chatri Sophonpanich (of Thailand's Bangkok Bank). - various sources.

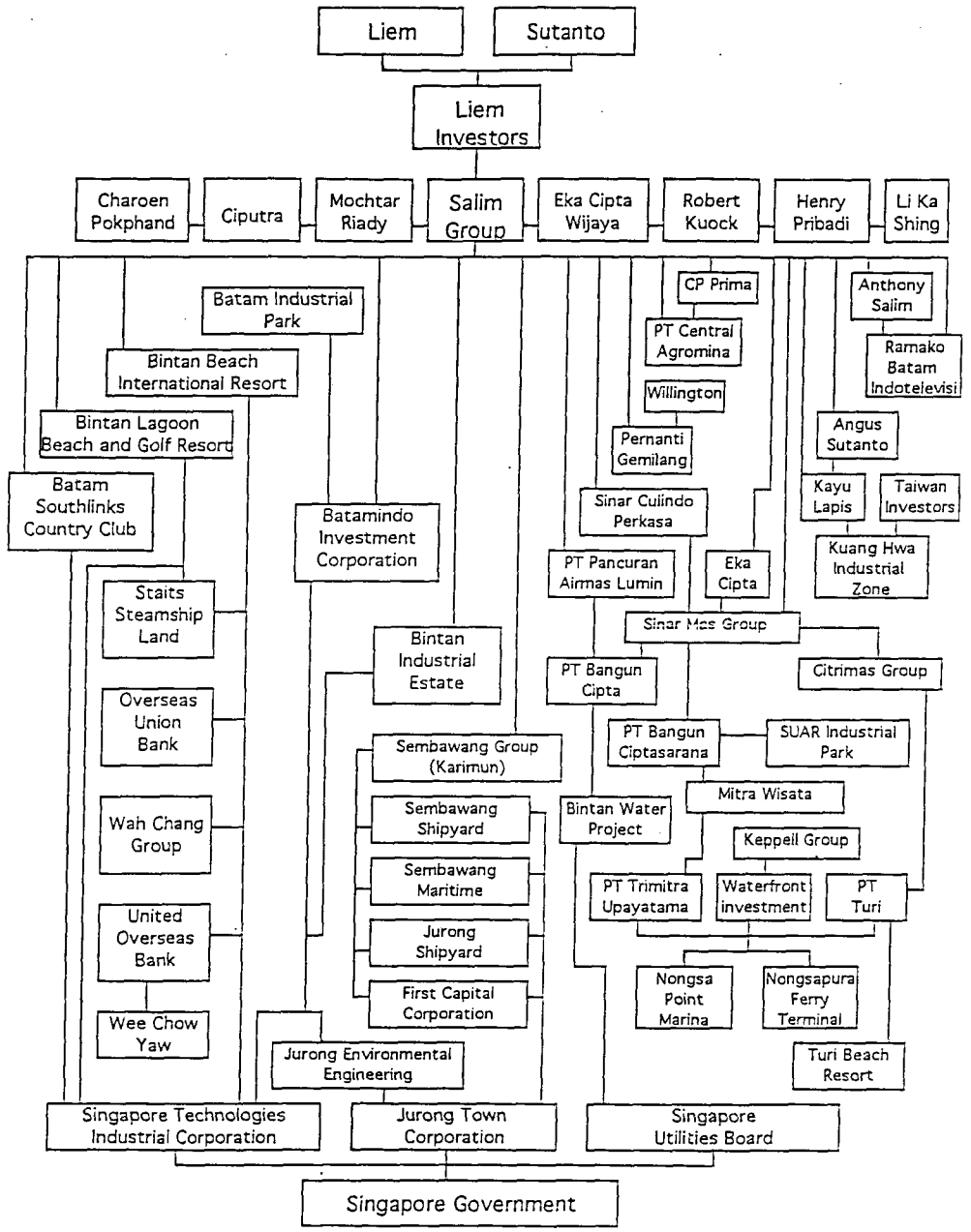
[52]/ Revenue data, Asian Wall Street Journal Weekly, 20/12/93:18; share of GDP Far Eastern Economic Review, 14/3/91:46.

[53]/ Field Survey and see Far Eastern Economic Review, 6/12/90:62.

[54]/ These thoughts flow from discussions with P. Leister of Inco, Indonesia.

[55]/ See Far Eastern Economic Review, 14/3/91:46.

Figure 10.3
Interpenetration of Singapore Government and Salim Group Investments, 1992



Sources: Various

Liem has purchased controlling interests in United Industries Corporation (UIC) and its subsidiary Singapore Land Corporation (one of the Republic's largest and most respected land developers). These companies were formerly the bailiwick of the financier Oei Hong Leong who has since moved on to Hong Kong. The purchase by Liem was supported by the Singapore government.[56]

Singapore apparently sees the efficacy of utilizing the deep and close networks of Chinese capital which ring the region as excellent conduits for its broader internationalization strategy (again the regional and global nexus). In the Riaus, the integration of the Salim Group and the Singapore government is striking. Figure 10.3 illustrates some of the complex of connections between the Salim Group and the Singaporean government regarding the development of Batam island. The boundaries of fragments of capital (e.g., state and private) in the regional ensemble are far from clear.

2. State Capitalism

In all three nodes of the Growth Triangle, the governments are deeply involved in the economy. This involvement goes further than mere regulatory changes or pushing investments. The governments are active players in the marketplace. Involvement is indirect (such as building infrastructure on Batam) and direct (through the enterprise of government linked companies or supporting certain investors). For example, JSEDC and BIDA are not only government agencies, but profit centres and key corporate players in their respective markets.

The role of state capital is especially important in Johor. Government investments (through vehicles such as JSEDC) are justified as being directed at increasing *bumiputra*

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[56]/ Far Eastern Economic Review, 10/1/91:50-51. This point was also made in an interview with UIC Corporation, October 1992. It should be noted as well that Liem's first purchase of UIC stock was from the company's former Chair Lee Kim Yew, brother of Lee Kuan Yew. Ibid.

involvement in the economy (i.e., to meet the needs of the NEP). Most major projects in the state have at least a share of equity in the hands of the government or with individuals with close government links (e.g., through UMNO). In this way, 'local' governments earn some rent from their position as mediators of the global-local nexus which can then be returned to public coffers to justify the extensive authorities granted these same agencies (for example, JSEDC actually generates revenue for the government and has unprecedented powers). (This is converse to the standard model which tends to paint a picture of disenpowerment of local authorities linked with globalization.)

In other settings, the involvement of the government in the economic landscape has been decried as undercutting the private sector. In the Growth Triangle, the involvement of the government is reconsidered as a positive development in that governments and government officials have a stake in the regional boom.[57] Further, there are a high number of interlocks between private and public investments.[58] These interlocks are so pervasive (see Figure 10.3) that it is extremely difficult to map separate lines of corporate and government involvement in the regional boom.

3. Scale of Investors

The 'field' of investment proclivities is a key source for the paradoxical mix of market integration and differentiation. Agents of capital in the Growth Triangle region range from the massive developers such as the Salim Group (whose imprint and impact is pervasive) to small residential home buyers from Singapore scouting out the areas around Kukup. Each of these

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[57]/ This point was frequently made in interviews.

[58]/ The intermeshing of state and capital is especially telling in terms of directorships on key boards. In Singapore, most ministers and high government officials are also on corporate boards and often have direct operational input into company activities. There is also a high level of 'flow' of personnel between government and corporate positions.

fragments has differing biases, aspirations and capacities.[59] However, in common they are bringing, or diverting, capital to new areas in the regional space economy and are thus critical to the production of the region itself.

There is a marked difference in the types of firms looking to invest in different areas of the region.[60] For example, in Johor, my research highlighted the fact that closer-in to Singapore one finds numerous small scale, mostly Singapore-based, companies.[61] These firms occupy smaller, older industrial estates and private lands, and the key variable for them seems to be access time for Singaporean owner/managers.

Larger, multinational (but usually with Singaporean regional offices) firms tend to prefer larger and newer, integrated industrial estates at a further remove from the core region and closer to large available labour pools. These larger firms are also more heavily affected by the inducements of governmental regional plans and development policies to decentralize growth.

The overlay and interplay of investment patterns is what gives the region its mixed development. Yet, as I have outlined, despite distinct strategies and niches, the operating environment in Singapore as global city is spurring a generalized spread of investments into the regional margins.

D. SUMMING-UP: CAPITAL AND THE REGION

Singapore is experiencing a classic over-accumulation crisis. (This problem is a key, under-analyzed one affecting all the Asian Tigers.) The way out of this trap is to invest

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[59]/ A close friend in Singapore, Mr Singh, who works as an apartment manager, epitomizes the small scale residential buyers. He has bought a small piece of land in Segamat as an investment play and to retire in.

[60]/ This material comes from interviews carried out in July through November 1992 with firms and in various locations in the mega-urban belt.

[61]/ This conclusions was derived from unpublished investment data supplied by the Johor State Economic Development Authority based on their mailing lists.

off-shore and/or to increase consumptive expenditures. This switch is key to the whole Growth Triangle development and Singapore's shift to services. As Harvey has written,

> Underconsumption seemed to be, and in a sense was, the reverse side of the coin to overaccumulation.... *The search for a solution of that sort underlay a shift in focus from production to distribution and consumption. Capitalism shifted gears, as it were, from a 'supply-side' to a 'demand-side' urbanization.*[62] (emphasis added)

Demand-side urbanization in the Singapore case means: 1) the development of services; 2) the production of new spaces (i.e., the pleasure and production periphery and new investments in the capital stock of circulation); and/or 3) off-shore investments. The shadow region provides a frontier for 'the urbanization of capital,' but for how long can the 'edge' be maintained? Johor and the Riaus provide a safety valve for resolving the tensions between capital fluidity and fixity.[63] This tension is only likely to grow as Singapore's niche as a global financial centre deepens.

The discussions of capital as a factor of regional production have revealed a number of themes which also emerged in the discussions of land and labour. First, capital is not a unitary nor clearly delineated category (i.e., it is a fuzzy construct). It is the interconnections between capital and land and labour markets which yield the most telling insights. Further, different elements of capital have different circulatory capacities and differential strategies. These strategies evolve along with the regional ensemble. Currently, the regional matrix is dominated by Singapore's centrality. It is the over-accumulation episode which characterizes Singapore which is driving investments into its hinterland. This episode is a result of tension between globalization and localization within the city-state.

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[62]/ Harvey (1989a) op cit, page 34.

[63]/ See the more general discussion of this theme in D. Gregory (1994) Geographical Imaginations, Cambridge Mass.: Blackwell, pp. 378-381.

E. SUMMING-UP, FACTORS OF PRODUCTION

1. General Comments

I have presented the argument illustrating that the neo-classical model of factor endowments may be flawed when they are seen as stark attributes. Yet, this does not mean that comparative advantage is irrelevant to the development of the Singapore Growth Triangle region -- it clearly is, if only in highlighting the region's attractiveness to potential investors.

A key source of the difficulties with the factor endowment model involves the spaciality of investment. Investments are funnelling into accessible areas: low land and labour costs or their availability are not in and of themselves enough to draw capital. Despite the various recitations of time-space collapsing, location within the grid of global commerce is critical (i.e., the fabric of time-space is still unevenly woven).

Regional imbalances are important (e.g., Singapore's over-accumulation). The key to the Growth Triangle's success is that the region provides a potential mix of diversity and proximity. However, pointing to the important links between proximity and diversity does not mean embracing factor endowments *carte blanche.* Diffuse (or fuzzy) categories factors must be seen in the way they are positioned and socially produced along with the region. The incantation of factor endowments fails to come to terms with the way factors are 'produced' within an economic region, by and through economic activity. The emphasis should be on the process of economic mobilization as it is located in a specific time and space.

2. 'Total' Economic Analysis

Investors frequently mentioned in the interviews carried out for this study that land, labour or even capital costs are not as important as are total business costs. The firm needs to balance a matrix of costing margins and stability in coming to locational or investment

decisions. An analytical approach should do likewise. As Scott has written, "This means that in any perspective analytical model, the firms inputs of land, labour, capital and location must be dealt with in their full interdependence."[64] Such interdependencies are uneven and contingent, but have as their basic commonality a specific milieu.

What Scott is getting at, what I have been trying to portray, and what the ideas of Sassen and Schoenberger (introduced in the Chapter I) put forward is the need to avoid categorizations and examine markets and movements (e.g., space-economies through situated milieux). Such an approach makes room for space through an examination of its production in place.

Within the Growth Triangle region, the key point of reference must be Singapore and its global niche. It is the rigidities in Singapore's land, labour and capital markets which are becoming aggravated along with globalization (also spawned by the government) which are finding expression in the transformation of the city-state's hinterland.

Movement/circulation is central in defining space, and increasingly place in the context of contemporary global capitalism. The statement may well be more true for Singapore than any other place on earth. Circulatory change in Singapore is the engine and context for many of the developments I have outlined to this point. It is the focus of the next chapter.

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[64]/ A. Scott (1988a) Metropolis, Berkeley: University of California Press, page 211.

PART IV

SINGAPORE AS A PLACE OF FLOWS: REGIONAL IMPLICATIONS

Part IV recombines the fragmentary analysis (e.g. by location or factor of production) of the preceding sections to examine the core of regional transformation -- Singapore's shifting global niche and presents the conclusions of the thesis. The recombination is approached in two stages. The first section of Chapter XI explicitly situates circulation as its focus. The analysis of circulatory transformation is crucial because it outlines the spatial transformation of the region. Singapore is aggressively holding on to its role as a global entrepot. However, the requisites of that role are changing. More informational and service capacity is required. These requisites have implications for the Growth Triangle.

The final section of Chapter XI analyzes Singapore's emergence as a global information/service centre. Chapter XI examines the most intangible, but perhaps also the most crucial element of Singapore's navigation of global and local dynamics -- information. The tensions between fixity and fluidity are most apparent in this realm. The implications run from structural changes in economic activity to issues of identity and state control of discourse formation. The chapter concludes that the Growth Triangle plays an important part in the construction of the informational city-state. Even a globally articulated information economy needs its support base (to provide transactional volumes and to act as a 'social vent'). Chapter XII summarizes the research findings and suggests wider implications of the Growth Triangle case study.

CHAPTER XI.

PLACES OF CONNECTIVITY: ISLANDS IN THE STREAM TO SHADOWS BENEATH THE WIND

> The convergence [of networks] is increased by the part played by the hinge in the handling of an enormous volume of transactional activities resulting from the linkages in the networks connected by the hinge...The recent revolution in technology and society, that transferred large numbers of people from the work of producing or processing material goods to work in services producing or processing information, is largely responsible for the megalopolitan phenomenon.[1] (Jean Gottmann)

> Too small to rely on its own resources, Singapore has always plugged into the global networks...Networking with other countries will generate mutual benefits and greater prosperity for all, as is being shown by the Growth Triangle. The NII [National Information Infrastructure] has an important role in this strategic economic thrust. It will help turn Singapore into a highly efficient switching centre for goods, services, capital, information and people.[2] (Singapore National Computer Board)

A. INTRODUCTION

In each stage of the discussion to this point, I have expressed the need to consider the circulatory aspects of the processes at hand. Changing circulatory regimes and capacities at both the global and regional levels are the forces of erosion and creation which outline novel

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[1]/ J. Gottmann (1990) Since Megalopolis: The Writings of Jean Gottmann. Baltimore: Johns Hopkins Press, page 165.

[2]/ Republic of Singapore, National Computer Board (1992) A Vision of an Intelligent Island, Singapore: SNP Publishers, page 20.

regional landscapes and employment patterns. The movements of goods, people, capital and information, especially as articulated through a global hinge, have long synthesized and re-synthesized the regional totality in situ (i.e., islands in the stream). The need to examine circulation has at least four specific roots:

> 1) circulation and movement are the defining characteristics of Singapore in both its historical and current global niches and of the globalization process more generally (Chapters II, III and VI).
>
> 2) enhanced circulation and market integration are key to the importance of differentiation and representation (Chapters II and VII).
>
> 3) the uneven mobility (or circulation) of factors of production is critical to the uneven production of the region (Chapters VIII, IX and X).
>
> 4) the processes I have been discussing are spatial in their manifestations (i.e., mega-urbanization and world city formation). Space is defined by movement or circulation (and perception) (Chapters II through X).

In this chapter, the focus is on the specifics of circulatory change in the regional core of Singapore and the links between these changes and the formation of the Growth Triangle. The four main elements of this chapter are: 1) a brief review of some of the basic 'local' implications of global connectivity (and linkages to regionalization); 2) the manner in which the globalization process is locally produced (and is supported by a regional base); 3) the changes in the types of flows on which Singapore depends, towards information flows (which also have repercussions for the (re)formation of the region); and 4) a portrait of Singapore as a global, informational city-state (which would seem to need a base such as the Growth Triangle).

As argued in Chapters VIII through X, it is the tension between 'global fluidity' and 'local rigidities' (e.g., in labour, land and capital markets) which lies at the heart of Singapore's current conundra (and thus, of the formation of the Growth Triangle). However, the city-state's

success is predicated on its global links. Thus, it would seem to have little choice but to attempt to globalize still further. This paradox is the fundamental issue facing the city-state today: how it negotiates the global-local nexus as a place of flows.

B. SINGAPORE: A PLACE OF FLOWS

As outlined in Chapter VI, Singapore's already high levels of global connectivity are increasing rapidly (recall Figures 6.6 through 6.9, pages 166-169). The high level of accessibility, in turn, makes the city-state an attractive investment environment for certain activities and thus increases the ability to enhance connectivity through capital expenditure (in light of projected increases in business based on the city's centrality). This dynamic is something of a circulatory twist on Myrdal's model of cumulative causation.

A relatively small area in the core of Singapore is the focal point for tremendous levels of circulation. In 1992, an area encompassed by an arc of three kilometres in radius around the CBD saw annual throughputs of some US$ 1.5 trillion in foreign exchange trading, 7.6 million TEUs[3] of containerized cargo and over six million international visitors.[4] These high volumes of throughput have concrete local manifestations.[5]

Land values in the centralized spatial node may be expected to increase due to the high level of throughput and because the CBD is, in a sense, so close to everywhere. Rental rates in the prestigious (and central) Raffles' Place office development tripled between 1986 and

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[3]/ Twenty-foot Equivalent Units

[4]/ Precise telecommunications data were unavailable from Singapore Telecoms.

[5]/ It is telling that Singapore allocates a large share of its limited land area to infrastructure. About 15% of the land base is used by telecommunications, utilities and transport operations (not including road works and parking). This is more than the share used for housing purposes. - Warwick Neville (1993) "The Impact of Economic Development on Land Functions in Singapore," Geoforum, 24 (2), pp. 143-163, page 150; the current level of land utilization for transport and infrastructure is up greatly from the 5% in 1967. - See Aline K. Wong and Ooi Giok Ling (1989) "Spatial Reorganization," in K. S. Sandhu and P. Wheatley (eds) Singapore: The Management of Success, Singapore: ISEAS, pp. 788-812, page 808..

1991.[6] The centripetal forces of circulation and concentration also have manifestations in the construction of the built environment. Of the 3.4 million square feet of office space which came on line in 1992, 90% was in the central area (recall also Figure 9.1).[7]

The increasing accessibility and value of the 'central space' of Singapore is a key element underpinning regional transformation and integration. Escalating costs in the city-state (tied to intensive globalization) are a primary reason for the attractiveness of land and labour in the Riaus and Johor (hence, driving extensive globalization).

Chapters IV and V highlighted the increasing volumes of movement linking Johor and the Riaus with Singapore and beyond. Increasing integration with the global hub of Singapore has transformed the spatial context of land and labour in Johor and the Riaus. For example, the multi-billion dollar resort project set for Bintan Island is premised on attracting some of Singapore's tourist throughput. It hopes to draw some 1.2 million visitors a year (via Singapore).[8] The 'empty spaces' of northern Bintan, like the city-state's CBD, are being reconfigured through their global connections.

Increasing costs in the regional core also magnify the need to achieve greater value from workers and spaces within the city-state (further increasing differentiation).[9] Chapter VIII outlined the difficulties in achieving increased productivity in manufacturing. Yet, services provide an uneven alternative. Many services have low productivity levels. This is especially

[6]/ Straits Times 19/07/92:14.

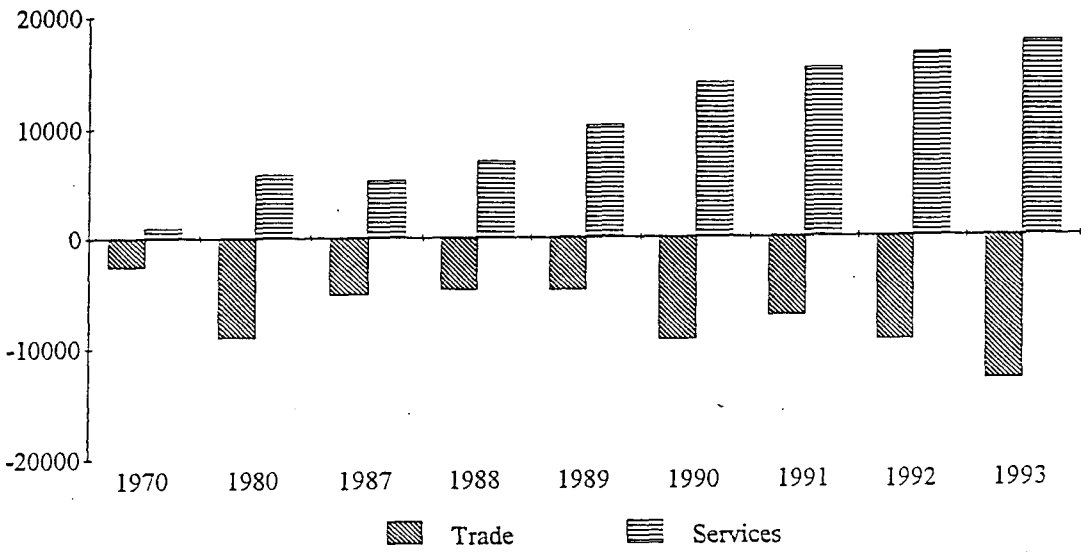
[7]/ Ibid.

[8]/ Straits Times 9/4/92:2.

[9]/ This point was explicitly made on a number of occasions, but especially by a representative of Chartered Electronics (interview in October 1992) who emphasized the critical importance of maximising the return to square footage of land and during discussions with the Urban Redevelopment Authority Executive Planner, October, 1992.

true in commercial activities such as retailing.[10] The types of jobs yielding the highest growth in value-addition are those involved with circulation or with tradable services more broadly (recall Table 8.1).[11] Figure 11.1 outlines Singapore's increasing dependence on service exports. Tradable services are the key to Singapore's ongoing success.

Figure 11.1
Singapore's Merchandise and Services Trade Surplus/Deficit
(1970-1993, S$ millions)



Source: Singapore Economic Survey (various)

[10]/ This point is strongly made in The Strategic Economic Plan and was also emphasized in an interview with the EDB Director of Planning. Republic of Singapore, Ministry of Trade and Industry (1991) The Strategic Economic Plan: Towards a Developed Nation, Singapore: Ministry of Trade and Industry, pages 73-76; see also Far Eastern Economic Review, 25/5/91:55.

[11]/ It is important to note that these services often require an industrial base. Manufacturing generates much higher service volumes than vice versa (see Department of Statistics Data revealed in Straits Times, 1/12/92:40).

One should also not surmise, however, that all manufacturing is being squeezed out the Republic. Petrochemicals and high-end electronics are still viable and important to the city-state's success. In the period after the research was carried out (i.e., post-1992), the manufacturing sector has been a focus of the Republic's surprisingly rapid economic growth. Though, the trade deficit continues to grow.

Singapore faces something of a circulatory imperative. The more intensively it globalizes (increasing costs), the more it needs to globalize (to gain returns). The Growth Triangle supports the globalization of the city-state and the rise of advanced, tradable services. It is part of government policies designed to further deepen the Republic's global niche. These policies are fundamental to all of the discussions to this point. The evolution of the region cannot be understood without examining Singapore's globalization push.

C. LOCAL PRODUCTION OF GLOBALIZATION

As in historical instances (e.g., Malacca), Singapore's global connections are partially based on the agency of its leaders in drawing the streams of commerce to the island. The government of Singapore has pushed the globalization process through an array of strategies. To maintain its niche among a growing palate of competitors, Singapore must continue to differentiate itself from potentially competitive spaces. Singapore's strategy of differentiation involves: 1) incentives, institutions and investments; 2) regional integration (for economies of scale, 'locking-in' the economic structure of trade and attracting investment); and 3) the further enhancement of the 'soft skills' of circulatory management and the representation of centrality (which are hard to mimic).

1. Producing Global Connectivity: Incentives, Institutions and Investments

The attractiveness of the city-state's 'business friendly'[12] and free-port status has been added to by incentives designed to attract circulatory activity. Schemes include incentives for the establishment of international procurement offices (IPOs[13]), capital markets (such as

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[12]/ The 'circulatory system' of Singapore is designed with international business in mind. This is done through closely monitoring market needs, business representation on key corporate boards, cutting costs and red-tape and relentlessly pushing to upgrade services.

[13]/ Official IPOs in Singapore purchased S$ 7.3 billion worth of materials in 1992 up from S$ 1 billion in 1986. Straits Times, 24/9/92:2.

SIMEX[14]) and operational headquarters (OHQs). These types of incentive plans provide a conducive environment for globalizing economic sectors, but the government is also involved in more direct actions.

The government has a number of agencies charged with directly ensuring the maintenance of Singapore's global accessibility. These range from large government-linked shipping concerns like Neptune Orient Lines to the actual service providers (such as the Port Authority). The flagship Government Linked Company (GLC)[15] is Singapore International Airlines (SIA). SIA accounts for 4.3% of the nation's GNP and is specifically pushed as a way of enhancing the city-state's global role.[16]

The telecommunications, port, tourism and monetary authorities are among the best in the world. They offer leading-edge services at low costs to users. For example, Singapore has among the world's lowest long distance telephone costs. At the same time, its hardware is among the world's best.[17] Similarly, costs at the Port of Singapore are about one half of those in Hong Kong while turnaround time is much faster.[18] The role of these institutions is to

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[14]/ The Singapore International Monetary Exchange is involved in trading currency futures.

[15]/ GLCs are the dominant form of domestic enterprise. They have tight links with government bureaucracies (especially in terms of the movement of top management personnel between government and GLCs).

[16]/ See Economist, 14/12/91:74.

[17]/ Two Singaporean circulatory companies are consistently ranked among the five 'most respected companies in Asia.' In the Asian Business 1994 poll, Singapore Airlines was ranked second and Singapore Telecom was ranked fourth (both were ahead of such firms as Sony, Toyota, Honda, McDonalds and the Swire Group). - Asian Business, 5/94:21.

[18]/ This said, Johor Port presents even lower costs than Singapore (about US$ 100/TEU) and is achieving increasing volumes. - Business Times, 5/4/90:1; Business Times, 2/5/90:1.

facilitate commerce by facilitating circulation.[19] They all make a good deal of money,[20] but also invest heavily in constant upgrading.

At the port, Singapore was second in the world in 1992 with a throughput of 7.6 million TEUs of containers a year.[21] Tanjung Pagar and Keppel terminals run 50 quay cranes (with the uniquely high density of an average four cranes/vessel). The new terminal at Brani will raise capacity to 12 million TEUs.[22] Even given the apparent over-capacity, the government has announced plans for a new mega-terminal which will, itself, handle 36 million TEUs (i.e., three times 1992 capacity and six times 1992 volume).[23] (This is an example of locally generated intensive globalization.)

The globalization push also has expression in the throughput of air passengers. The airport is "directly linked to 111 cities in 54 countries by 55 airlines through over 300 flights per day."[24] The connectivity and reliability of air travel were frequently given as key reasons for locating in the city-state. The twin terminals at Changi Airport can handle an annual volume of some 24 million international passenger movements. Throughput in 1992 was 18.1

[19]/ Interview with PSA planners, November 1992.

[20]/ For example, profits at the Port of Singapore Authority rose to S$ 467 million in 1992 on revenue of S$ 1.19 billion (an increase of 24% from 1991). Republic of Singapore, Port of Singapore Authority (1991) Annual Report, 1991, page 69; Singapore Telecoms had 1993 earnings of $S 1.3 billion and 1.6 billion in 1994. - Straits Times, 5/19/94:3; Economist, 6/4/94:68. The vast majority of earnings are reinvested in operations.

[21]/ The city-state holds the title of number one port in the world by tonnage due to the high volumes of petroleum products transhipped through Singapore.

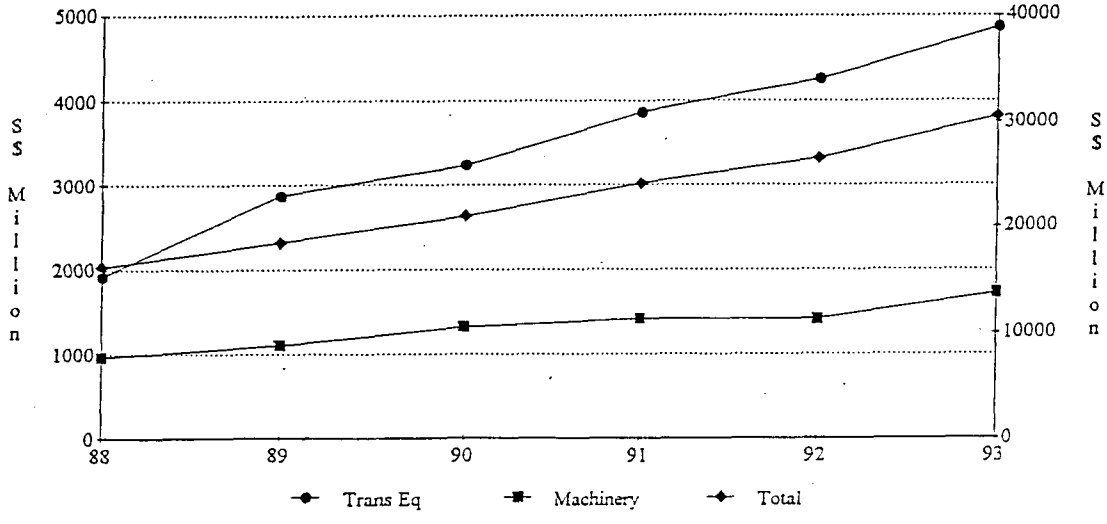
[22]/ Port View July-August 92:9; though the PSA Annual Report, 1991, places the maximum at 10 million (page 20).

[23]/ Straits Times, 23/10/92:1; Economist, 4/9/94:70-72.
Such investments have paid off in the past, securing Singapore's centrality as a global port. Container movements through the Port have increased about 20% a year over the last five years.

[24]/ Tellingly, these data were gleaned from the aforementioned EDB publication, The Business Architect with Global Connections. It is also useful to note that Johor has but one international flight (to Hong Kong), and at the time of writing, Batam was still awaiting its first global link.

million movements.[25] Despite this surplus capacity, earthworks have already begun for Terminal Three.

Figure 11.2
Gross Fixed Capital Formation, Selected Sectors
(1985 Market Prices)



Source: Economic Survey of Singapore, 2Q/1994, op cit, page 62.

The Singapore government's strategy would seem to be one of staying far out in front of the market so that there can be little space left for competitors.[26] As the Port's Operations Director noted during an interview, "we can't wait, we have to believe in growth, to build in advance."[27] This competitive advantage is achieved by diverting surplus capital to the

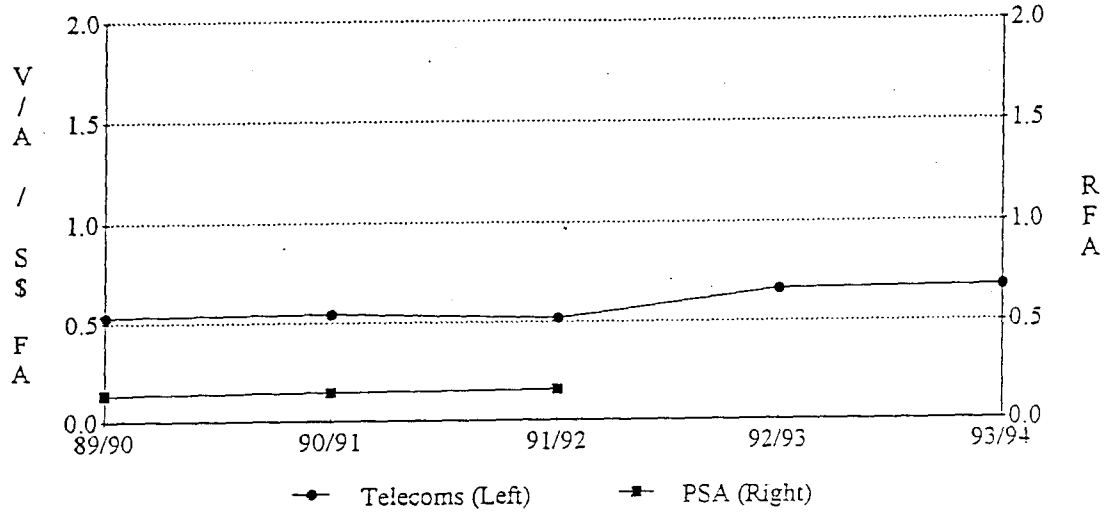
[25]/ Business Times, 01/23/93:2.

[26]/ See, for example, comments in Port of Singapore Authority (1992) Annual Report, 1991, page 16.

[27]/ Interview with PSA Director of Port Operations, December, 1992.

circulatory sphere (and is thereby linked to the over-accumulation crisis). Figure 11.2 illustrates the high level of capital investment into fixed assets in the transport sector (higher even than in manufacturing).

Figure 11.3
Returns on Investment in Fixed Assets
Singapore Telecoms 1989/90-1993/94; PSA 1989-1991/92



Left scale -- Value-Added per S$ Invested in Fixed Assets. Right scale -- Total Return on Fixed Assets (RFA).

Source: Port of Singapore Authority (1991) Annual Report 91, page 69; Singapore Telecoms (1992) Annual Report 91-92, page 47.

As Figure 11.3 demonstrates, Singapore's circulatory success is very much a result of capital investments (i.e., value-added to investments is quite static).[28] Importantly, there would seem to be a 'creep' upwards in terms of returns in the Telecoms sector. This may well reflect

[28]/ The role of capital deepening as a kind of engine for the globalization process is an intriguing area for future research. Especially in light of the capital surpluses which today characterize the ANIES.

an underlying attractiveness of the circulation of information as an economic enterprise.[29]

The reliance on capital deepening to assure the global niche is a risky strategy. Some of the city-state's advantages in terms of hardware can be purchased by its cash-rich neighbours. As the Finance Manager for Sumitomo Electric noted, "The Singapore model is not difficult to copy."[30] It is becoming apparent that a number of other ASEAN nations are following Singapore's lead and investing billions of dollars on circulatory infrastructure projects (such as port, airport and telecommunications systems) to carry out their own globalization pushes.[31] Yet, there are two sides to this potential threat.

2. Producing Global Connectivity: Regional Integration

As Chapter III outlined, regional flows of information, capital, goods, and people have always provided a support base for global entrepot centres dating from the classical Sri Vijayan era through the colonial period.[32] Today, the 'feed' coming in from other Southeast Asian ports such as Port Klang is equally important to the sustenance of the Port of Singapore.[33] Indeed,

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[29]/ Informational flows would seem to be an area in which it is easier to optimize (e.g., storage is cheap) and to achieve value-added.

[30]/ Interview, November, 1992; this point was eloquently echoed by the Managing Director, ATT Asia who noted that a lot of Singapore's seemingly unique advantages (like infrastructure) are basically commodities and can be purchased. - Interview, November, 1992.

[31]/ Including a US$ 1 billion port project on Batam (being built by Evergreen International - see Straits Times 23/5/93:2) and a US$ 650 million redevelopment of Port Klang in Malaysia. (Economist 4/9/94:70-72). Other developments include the new airport at Subang near Kuala Lumpur and the Southeastern Seaboard development in Thailand.

[32]/ See, for example, H. Furber (1976) Rival Empires of Trade in the Orient, Minneapolis: University of Minnesota Press; K.N. Chaudhari (1978) The Trading World of Asia and the East India Company, 1660-1760, Cambridge: Cambridge University Press; C.M. Turnbull (1972) The Straits Settlements, 1826-1867, London: Athlone Press.

[33]/ In order to maintain the city's links, Singapore needs to act as a hinge for regional flows as well as potentially fickle global circuits. Although data are extremely difficult to come by, officials have suggested to me an annual increase of 27% in feeder operations over the last few years. Interview with PSA, Marketing Operations, November, 1992.

It is useful to note that ASEAN's share of global container movements increased from .3% of global levels in 1970 to 8.9% in 1990. Herman Hochstadt (1990) "Shipping in ASEAN," Shipper's Times, Vol 10 (2), page 31. Singapore's level of centrality was growing through 1990 at over five times the volume of its next largest

the Port of Singapore supports upgrading 'competing' ports because it smooths flows through the regional system which tend to be funnelled through Singapore with its high frequency of global links.[34] Regional feeder operations provide important economies of scale for the large investments in infrastructure required of a global hub. Singapore receives about three 'feeder ships' for every one 'mother ship' to visit the harbour.[35]

a) Economies of Scale

For the circulatory infrastructure of Singapore to work effectively, large volumes must be attained. In this way the city's infrastructure is like any large investment in fixed capital. Increasing levels of capital investment require increased throughput to gain returns on investment (i.e., deeper globalization). Singapore is too small to generate the needed volumes in and of itself. The airport's throughput is approximately six times the total population of the Republic. As the Sales Manager of the City-Link courier company put it, "in Singapore we don't have such a big market."[36] The company is reliant on transhipments for about 75% of its business.

Global flows are also in themselves not enough to support the global niche. Indonesia and Malaysia account for 40% of Singapore's international phone traffic which in turn accounts for almost 50% of Singapore Telecoms' revenue.[37] About 30% of all cargo handled in

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competitor -- Bangkok. See Chia Lin Sien (1991) "Container Port Development in ASEAN: Shaping up for the Future," Shippers Times, 12, pp. 2-8, page 3.

[34]/ Interview with PSA, Marketing Operations, November, 1992. See also, comments of Malaysian Minister Mansur to this effect in Singapore Report of the Growth Triangle, 12/3/92:3. Regional blockages can in fact hinder Singapore's turnover. For example, the political turmoil in Bangkok in 1992 backed up containers throughout 'the system' and greatly affected Singapore's throughput.

[35]/ Interview with PSA, Director of Operations, November, 1992.

[36]/ Interview with City-Link Sales Manager, December, 1992.

[37]/ Telecoms' volumes from, G.S. Staples (ed.) Telegeography, 1993, London: International Institute of Communication, page 134. Singapore's role as regional hub is even marked when one notes that 44% of Malaysia's

Singapore's ports originates in Malaysia[38] and in 1992, almost 50% of Changi Airport's cargo throughput came from Southeast Asia (and 20% from Malaysia alone).[39] As the Monetary Authority of Singapore (MAS) has put it,

> Nearly 3/4 of the improvement in the services balance was attributed to transport related services. Port and airline services continued to record strong growth reflecting Singapore's rapid development as a regional hub.[40]

If the regional base could be firmly woven into the structure of the Singaporean economy (i.e., via regional vertical integration), then the supportive throughput would be much more stable. The Growth Triangle may usefully be seen in this light. As Lee Kuan Yew has said to BIDA's chief, "Habibie, you just develop Batam and just plug into Singapore's networks."[41]

b) Intersections of Flows

A key to Lee's admonition is the plurality of the term 'networks' and Singapore's centrality within various layers and types of flows. If one imagines circulatory space as overlapping sets of movement, then the importance of Singapore as a central knot comes to the fore. It is a place where most of the different circuits of circulation (e.g., from commuting Johorean labour to international capital) come together and are interwoven (recall the discussion

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International calls are to Singapore as are 24.4% on Indonesia's -- in both cases the city-state is the number one destination for phone traffic from its neighbours. Revenue data from Singapore Telecoms (1994) Annual Report 93/94, page 44.

[38]/ Business Times, 2/5/90. About 70% of Indonesia's exports are believed to move through Singapore. - Straits Times 23/5/93:2.

[39]/ 1992 data from Republic of Singapore, Civil Aviation Authority of Singapore (1992) Air Transport Statistics, July 1992. As well, 57% of incoming passenger flights were from ASEAN (Malaysia and Indonesia led in this group). Republic of Singapore, Singapore Tourist Development Board (1992) Singapore Monthly Report on Tourism Statistics, February, page 20.

[40]/ Monetary Authority of Singapore (1991) Annual Report 1990/91, Singapore: MAS, page 27.

[41]/ Straits Times, 1/3/90:39; see also Straits Times, 23/10/92:1.

of Chinese and European circuits in Chapter III).

Peter Rimmer has devoted a good deal of attention to the types of flows moving throughout the Pacific Rim. His model is very useful for interpreting the Singapore case as the city-state strives to embrace its regional envelope. Rimmer emphasizes that the day of isolated production platforms (such as NIDL-era Singapore or Hong Kong) has passed and the global economy is now characterized by a number of development corridors containing high transactional densities which are linked to a global system of circulation via key intermodal nodes.[42] Yet, there is more to this segmentation of circulatory space than geographical partitioning.

Rimmer has also emphasized the juxtaposition of 'fast' and 'slow' circulatory flows (fast being things like telecommunications, slow involving ships' cargo, etc.).[43] He has argued that these flows have important interdependencies and points of intersection. Singapore is one such place. It is a place where informational, capital and aircraft movements have a high concentration and meet with the slower circuits of sea-cargo, trucking and labour migration.

The 'fast' circuits are important because they are deeply implicated in the control of other

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[42]/ See P.J. Rimmer (1991) "The Emerging Infrastructural Arena in Pacific Asia Since the 1970s," Proceedings of the Japan Society of Civil Engineers, (431), pp. 1-17; or P.J. Rimmer (1993) "Transport and Communications in the Pacific Economic Zone During the Early 21st Century," in Yue-Man Yeung (ed.) Pacific Asia in the 21st Century, Hong Kong: Chinese University Press, pp. 195-232.

Singapore's wide range of transportation and communications systems allows it to act as an intermodal point. Intermodality refers to the ability to shift from one form of transportation to another (e.g. a container off of a truck and on to a ship). Of late, intermodality has become more important because: 1) of the rise in containerization; 2) the need to get the best mix of transportation (e.g. the increasingly popular fly/ship mix) to maximize efficiency at least cost; (See P.J. Rimmer (1990) "Transport and Communications in the Pacific Economic Zone During the Early Years of the Twenty-First Century." Paper presented to a workshop on Geography and development in Pacific Asia in the 21st century, Chinese University of Hong Kong, Rec 10-14, 1990.) and 3) the manner in which it serves to link regional (often rural) locations with global flows (goods can be packed and routed directly from Sharp's Batu Pahat plant in Johor through Singapore for quick dispatch to European and American markets). See also J-P. Rodrigue (1993) Intermodality and the Emergence of Mega-urban Regions, Montreal: Universite de Montreal, Centre de Recherche sur les Transports.

[43]/ Rimmer (1991) op cit, page 4.

flows. In particular, the flow of information is the base upon which other flows are increasingly dependent. The growing role of informational capacity brings one to an intriguing realization. Some of the most important ways of attracting and holding on to the flows of global trade are also the least tangible: they are image, expert systems and information handling capacity.

3. Producing Global Connectivity: The Intangibles

Singapore publicizes its successful infrastructural developments with its claims to having the 'world's best' port, airport and telecommunications systems.[44] It is important to the success of the Republic to keep its connectivity firmly in the minds of international managers (thus, the frequency with which 'global connections' are pushed[45]). All of the manager's I interviewed mentioned the perception of the dependability and connectivity of Singapore's communications and transportation facilities as an important element in their decision to do business on the island. With a growing range of alternative sites striving to attract investment, the representation of connectivity is increasingly important.

The government of Singapore has occasionally evoked the image of the Republic as a modern day Venice. Yet there is a crucial disjuncture in this analogy: Singapore is not quite a 'free-state' in the Venetian sense. The trade regime is not driven by private entrepreneurs, but rather by a paternal state. As outlined in Chapter VI, the government has traditionally seen its (global) success as being based on tight and pervasive (local) control. Yet, control is a difficult goal in a fluid and unstable global economy.

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[44]/ For example, an issue of Singapore Investment News listed awards for Changi as the world's best airport from Business Traveller, Euromoney, Business Traveller International, Travel Trade New, and PATA News.

[45]/ See for example, Republic of Singapore, Economic Development Board (1992) Singapore: The Business Architect with Global Connections, Singapore: EDB.

Today, the firms, nations or regions which succeed are those with the flexibility to "Thrive on Chaos."[46] The Singapore government seems particularly aware of this fact. The Director of Planning for Singapore's EDB stressed that success as a 'global city' "makes it necessary to change rapidly."[47] Yet in Singapore, even change is a very controlled process. As the Singapore Report of the Economic Committee put it, "Without flexibility we will never ride out storms and dangers... this tendency to rigidity must be constantly controlled."[48]

This statement outlines the crux of the difficulties facing Singapore as it navigates its global course into the uncharted realms of global service flows. A key aspect of Singapore's current political economy is the high level of control of the civil society and a dynamic flexibility when it comes to global business. These two traits were so successfully intertwined in nation's industrialization push. How they will be adapted to the Next Lap is a crucial question facing the city-state.

To maintain global fluidity and flexibility in the context of local control, the government has turned to technical solutions to keep the city-state's global circulatory edge. Currently, Singapore's key strategic advantage in terms of global flows (beyond its location) is the sophistication of its information infrastructure. Part of the social construction of competitive advantage involves 'hardwiring' the knowledge base of the city-state's trading system. Singapore's global niche is very much based on the acquisition and utilization of informational

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[46]/ Tom Peters (1987) Thriving on Chaos: Handbook for a Management Revolution, New York: Knopf.
I am not arguing here that flexible is entirely new to economic enterprises or to regions. I am arguing that intensity of the need for flexibility has been heightened and that perception of the need has also been heightened by globalization.

[47]/ Interview with Director of Planning, EDB, December, 1992.

[48]/ Report of the Economic Committee (1985), op cit, page 14; I will address the deep ironies and contradictions within the last half of this statement (which cut to the heart of the Singaporean conundrum) later in this chapter. For the moment, my purpose is to focus on the quest for flexibility.

resources, especially as the core of its circulatory activities switches from bales of cargo to bytes of information.

4. From Bales to Bytes

This section focuses on the circulation of goods and information. Goods and information are useful analytical frames because of their apparent polarities (i.e., tangible versus intangible) and because they can highlight the linkages and the transitions between the movement of goods and the movement of information -- the shift from streams to winds.

Singapore's positioning within the global fabric of the movement of goods has long been fortuitous. The city's physical (or absolute) location must always be considered. However, as outlined above, one must also consider the manner in which the government of Singapore has vigorously positioned the island within the new geographies and global cargo streams (relative location). To date, it has been very successful.

The port serves over 700 shipping lines connecting the city-state with over 750 ports around the world.[49] Frequency of sailings are crucial to connectivity, and a ship leaves Singapore every seven minutes.[50] In the last two weeks of December 1992, ships left for Jakarta once a day, for Hong Kong five times a day, for Germany six times a day, and to the Middle East nine times a day.[51] As P.M. Goh has said, "Singapore is now more than a world-class port, it is a global maritime hub."[52]

The Republic's large shipping volumes need to be matched by speed and co-ordination

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[49]/ Note that this discussion omits the increasingly important role of air cargo. Air cargo capacity at Changi airport doubled from 1991-1992 (to 1.5 million tonnes). - Journal of Commerce, 15/6/93:7.

[50]/ Interview with Port of Singapore Authority (PSA) officials, November, 1992.

[51]/ Derived from Shippers Times, 12/12/92:2-3.

[52]/ Business Times, 23/10/92:1.

of throughput. In terms of cargo movements, there is a continual push to cut turnover time.[53] Reduced turn-over time increases returns on fixed investments, cuts costs for carriers and improves overall flexibility. A key route to increasing volumes and control is the development of information systems.

As Hepworth and Ducatel have argued, there are close and critical linkages between physical movements and information systems.[54] While one often thinks of information technologies as being most closely linked to finance and other 'intangible' activities, tracking and documenting the flow of goods (and people) underpin a huge demand for information resources. For example, in 1992, about 80% of paper work on goods movement at the port was done electronically.[55] As Beniger has pointed out, it was the original expansion in productive capacity which occurred along with industrialization and the consequent spatial expansion of markets which drove the development of the first computer and communications systems.[56]

Interview results suggested high levels of information use by manufacturers, shipping companies and travel agencies.[57] For example, information intensity was particularly evident in a lengthy interview with the Managing Director of Toshiba Asia.[58] The company's 'in-house' network is extremely advanced. In 1992, it coordinated the yearly production and movement of 150 million semi-conductors in 10,000 custom-types which generated some 15,000 purchase

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[53]/ The goal is to be able to unload a 1,000 TEU ship in 10 hours. - Interview PSA Director of Operations, November, 1992.

[54]/ M. Hepworth and K. Ducatel (1992) Transport in an Information Age, New York: Belhaven Press.

[55]/ Interview with PSA Director of Operations, November, 1992.

[56]/ J.R. Beniger (1986) The Control Revolution: Technological and Economic Origins of the Information Society, Cambridge Mass.: Harvard University Press.

[57]/ This assertion is supported by data in National Computer Board (1993) Survey Report on Usage of IT in Singapore, Singapore: Shing Lee Publishers.

[58]/ Interview with the Managing Director of Toshiba Asia, November, 1992.

orders per month. The firm's computer networks are also increasingly 'open systems' with linkages to suppliers, customers and various electronic services offered by the government of Singapore. For example, the government has established a number of networks to facilitate the movement of goods.

The fuzziness of the boundary between goods and information may be illustrated through considering the containerization of cargo. One might well argue that the most important development in international trade over the last 25 years has been the growth in containerization.[59] Singapore has been a leader in capturing container business and is the number two container port in the world.[60] In many ways, a container may be seen as an information packet. Containers are marked with distinguishing codes and are routed along pathways which are determined by information systems. Singapore's entire port system is based on the ability to sort and correctly stack containers. Each day some 18,000 containers need to be taken off of one ship, stored in a suitable position in stacks reaching seven high and eventually placed on a another ship in the best location for its removal at its destination. The port of Singapore's computers carry out these functions and direct all activities at the port.[61]

The informational dimension of the movement of goods is also captured by the development of state-built information channels to connect Singaporean and/or regional trading firms and international markets. Singapore is also deeply ensconced in global Electronic Data Interchange (EDI) networks which track and facilitate the movement of goods. The key

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[59]/ See C. Comtois (1993) The Evolution of Containerization in East Asia, Montreal: Universite de Montreal, Centre de Recherche sur les Transports.

[60]/ Singapore and Hong Kong vie for top spot which was Singapore's in 1990 and 1991. In 1993, Singapore moved 9.04 million TEUs to Hong Kong's 9.2 million (both are growing at about 20% a year). - Far Eastern Economic Review, 10/3/94:33; and Economist 4/19/94:70-72.

[61]/ In 1989, the port system won an award from the American Association of Artificial Intelligence, Singapore Investment News, April, 1989:7. Ship tracking and communication abilities are also unmatched.

development in this regard is the creation of an EDI system called 'Tradenet.' Singapore was the first country in the world to establish a nation-wide EDI system (again, a benefit of being 'small' in the global economy[62]).

Tradenet joins many aspects of the transfer business in one centralized virtual hub (Figure 11.4). By 1990, Tradenet accounted for one-half of the 250,000 trade documents processed per month in Singapore.[63] At that time, documents could by processed in 15 minutes compared to the previous three days! By 1992, over 95% of all trading documents were filed electronically by Tradenet's 2,400 users.[64]

The use of Tradenet also gives Singaporean shippers (and those of Johor and the Riaus transhipping through Singapore) an advantage over competitors because it wires them into the 'global' system of trade (and thus electronically differentiates Singapore).[65] Tradenet has linked up with US customs. This gives Singapore's exporters an edge on getting material into the US because they can electronically file the all-important certificates of origin.[66] Singapore's Telecoms has also signed an agreement with Japan's Fujitsu to link the two companies' EDI nets. As a result, Tradenet's subscribers will be linked with Fujitsu's 15,000 members.[67] However, mere access to global flows is unlikely to generate the type of returns Singapore is

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[62]/ An illuminating article in the Straits Times (10/3/92) outlines how Singapore's lead in EDI was established first because it was typically initiated, planned, managed and funded by a strong central government. Singapore's situation is different from the situation in Hong Kong which is often presented as being behind schedule because of a lack of state control and vision.

[63]/ Straits Times 19/2/90:32.

[64]/ Material supplied by Singapore Network Services, see also Straits Times, 10/3/92:1.

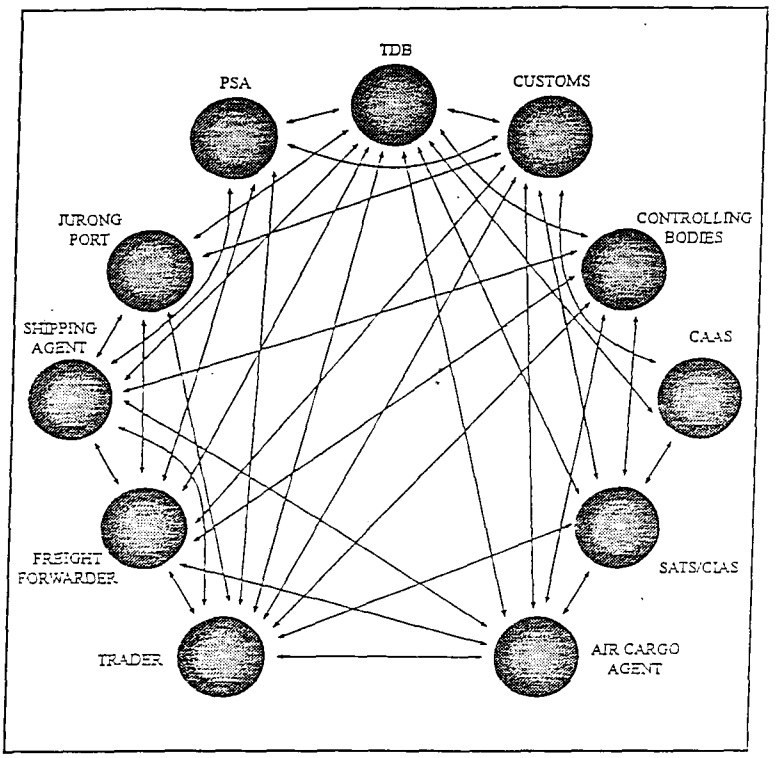
[65]/ This point was directly made by the Director of Planning for NEC Electronics when he compared the operating environment in Penang and Singapore. - Interview October, 1992.

[66]/ Business Times, 25/3/92.

[67]/ Business Times, 17/7/90:2.

looking for. There must be content to flows and this content needs to be 'realized' (or localized) through transactions.

Figure 11.4
Tradenet's Virtual Space-Economy



Source: Singapore Network Services

Tradenet also helps in this regard. Systems like Tradenet help to underpin the development of advanced services (and regional complexes) through transforming transactional relationships.[68] A key to firm structure and the tendency to disintegrate certain functions is transaction cost. For Singapore to achieve rent from global business flows it needs to get

[68]/ See P.W. Daniels (1993) Service Industries in the World Economy, Cambridge, Mass.: Blackwell, page 116; H. Williams and John Taylor (1991) "Information, Technology and the Management of Territory by Firms," Cities of the Twenty-First Century, New York: John Wiley and Sons.

transnational companies to externalize as many functions as possible in the city-state. The lowering of transaction costs is facilitated by better communication and transportation systems. A key element of the cost of external transactions is the risk involved in imperfect information. Tighter communication links cut this risk and facilitate the diffusion and integration of production activities. Interviews illustrated that this tendency was extremely evident in Singapore (e.g., Apple and Motorola have tight EDI links).[69] Singapore is a world leader in the development of intra-corporate communication systems. Tradenet is one of a series of business networks being established to bind the city-state's economic actors (TNCs among them) together and to bring the ensemble closer to global markets.[70]

The computerization of the city-state's port and trade sectors is part of a wider drive to bring information technology (IT) to all facets of the Singaporean economy and its global connections.[71] As Industry Minister B.G. Lee has noted, "The key enabler of the process of globalization is IT [Information Technology]."[72]

4. Informational Analysis and Singapore

Much as in the case of the Growth Triangle, Singapore's future as an informational city-state (or intelligent island) is a mix of hyperbole and fact. Part of any interpretation of

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[69]/ Interview results and Straits Times, 27/490:38.

[70]/ For example, 'Orderlink' connects the IPOs located in Singapore with local suppliers - Business Times 8/5/90:4. DHL has hooked directly into Singapore Customs EDI net. DHL has about 50% of the regional package market. Business Times 10/3/92:1. As market leader, other firms will have no choice but to follow suit (thus pushing the process along).

[71]/ For a particularly concise, yet comprehensive review, see S. Sisodia (1992) "Singapore Invests in the Nation-Corporation," Harvard Business Review, May-June, pp. 40-50.

[72]/ Straits Times 29/5/90:34.

Singapore's present and future profile must consider the ideological and representational elements of the 'information transition' (discussed in the concluding sections of this chapter). Such an argument does not, however, preclude consideration of the important economic and social shifts which might well be placed under the rubric of the information economy.

Putting the more grandiose elements of the informational future to the side for the moment, an examination which emphasizes information as an analytical focus has a number of strengths. First, it avoids the artificial division pointed to by the industrial/post-industrial model. The crux of the post-industrial model is the idea of a disjuncture -- a fundamental shift in the content and context of economic activity (i.e., POST-industrial). Such a vision is overdrawn. As the Growth Triangle case study illustrates, the disjuncture in economic activity in one place is often linked to the maintenance of industrial activities in other locations. Post-industrialization is more clearly understood as the unevenness of the globalization process.

An informational approach points to less of a discontinuity and more of a continuum of change in the content of economic activities. Information has long been a key ingredient in economic processes, but its role is currently being reconfigured. An examination of evolving informational patterns can yield useful insights into changing firm structure and the formation of new markets. Information is an increasingly apparent and important commodity within the frame of globalization.[73]

The dimensions of the information-biased economy would seem to be circum-global, its products, intangible and its aspect, unstable. These three traits point to hazards, but they also

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[73]/ As the NCB has put it, "information is the currency of the new age." National Computer Board (1992) op cit, page vii. See also D. Bell (1976) The Coming of Post-industrial Society: A Venture in Social Forecasting, New York: Basic Books; A. Toffler (1990) Powershift: Knowledge, Wealth and Violence in the 21st Century, New York: Batam Books; A. Toffler (1980) The Third Wave, New York: Morrow; Simon Nora and Alain Minc (1980) The Computerization of Society: A Report to the President of France, Cambridge, Mass.: MIT Press.

outline opportunities for a place like Singapore. The emergence of new economic foci has provided what Storper and Walker are fond of calling a 'Window of Opportunity.'[74] It is within such windows that new regions and economic dynamos can be produced *sui generis*.[75] Singapore is consumed by the possibilities provided by the opening of the information window.[76]

The core of Singapore's vision of its future is an economy and society based on the vague, but rather utopian contours of an information age.[77] The goal of becoming an information society is laid out in policy documents such as the Next Lap, A Vision of an Intelligent Island (the IT 2000 Report), The Strategic Economic Plan and The National Technology Plan.[78] For the Singapore government, the informational niche presents a technical-

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[74]/ M. Storper and R. Walker (1989) The Capitalist Imperative, New York: Basil Blackwell.

[75]/ A key element of the model which proposes a wholesale economic (and spatial) shift accompanying the information transition is the model of Kondrantieff waves. The Kondratieff, or Long Wave model, points to 50-year cycles in the global economy driven by new products and product systems.

The economic lead in each upswing is dominated by a new group of activities (products and production techniques) which spin-off a wide range of sub sectors and innovations. The present fifth Kondrantieff, or 'Carrier Wave,' is seen as crucial because the core product or activity would seem to be the manipulation of knowledge and information. Further, a second element of the Kondrantieff model of use here is the spatial dimension within which it unfolds. The 'swarming' of innovation which leads to new products and techniques is a localized process. See the detailed discussion in P. Hall and P. Preston (1988) The Carrier Wave: New Information Technology and the Geography of Innovation, 1846-2003, Boston: Unwin-Hyman.

[76]/ See Republic of Singapore, National Computer Board (1992) A Vision of an Intelligent Island: The IT 2000 Report, Singapore: SNP, page ix.

[77]/ This goal can be traced to 1985. See Republic of Singapore, National IT Plan Working Committee (1985) National IT Plan, Singapore; or Far Eastern Economic Review 20/12/85:53-54.

For introductions to the city-state's early push towards informationalization, see Meheroo Jussawalla and Cheah Chee Wah (1983) "Towards an Information Economy: The Case of Singapore," Information Economics and Policy, Vol 1; E.C.Y. Kuo (1988) "Policies and Strategies of IT Development in Singapore," in D. Riddle (ed.) (1990) Information, Economy and Development, Bonn: F. Ebert Foundation; Linda Low and Toh Mun Hung (1988) "The Information Sector in Singapore: Measuring its Size and Economic Effects" NUS mimeo; E.C.Y. Kuo (1989) "Trends of Informationalization in Singapore," NUS mimeo; E.C.Y. Kuo, Loh Chee Meng and K.S. Raman (eds.) Information Technology and Singapore Society, Singapore: Singapore University Press; or the National Computer Board's Journal IT Focus.

[78]/ Republic of Singapore (1991) The Next Lap, Singapore: Times Editions Ltd; Republic of Singapore, National Computer Board (1992) A Vision of an Intelligent Island: The IT 2000 Report, Singapore: SNP; Republic of Singapore, Ministry of Trade and Industry (1991) The Strategic Economic Plan: Towards a Developed Nation,

social frontier which the nation needs now that the primary goal of industrialization has been met. The 'new economy' will be driven by the development of the information sector as the Republic evolves into a global, informational city-state.

D. SINGAPORE: THE GLOBAL INFORMATIONAL CITY-STATE?

> Global competition in telecommunications is an overwhelming and irreversible tide. We can neither go against, alter nor shut out this tide. We will simply be bypassed and rendered irrelevant. (Government of Singapore, 1994)[79]

> Singapore is a very interesting experimental lab - it is small enough to have a completely unified network system and large enough to develop as a prototype for the world. We are striving to set up a globalized metropolis with total communications. If it works, it will be the first of its kind in the world.[80]

1. Introduction

Work on the economic geography of the 'information age' is still in its formative stage.[81] In a macro-sense, Innis' work in Communication and Empire was deeply geographical, yet it was not particularly analytically focused.[82] Indeed, the vast majority of writing in this

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Singapore: Ministry of Trade and Industry; Republic of Singapore, National Science and Technology Board (1991) National Technology Plan, 1991, Singapore: SNP Publishers.

The government also sponsors numerous 'infotech fairs,' infrastructural and human resource initiatives and continual invocations of the informational utopia. The state has clearly placed IT (Information Technology) on the ideological forefront as key to the nation's future.

[79]/ Cited in Martin Rudner (1994) "Telecommunications Development in ASEAN Countries," Journal of Asian Business, 10, 2, pp. 57-96.

[80]/ Columbia University Professor and visitor to the Institute of Systems Science, Professor Aurel Lazar - cited in Straits Times, 14/2/92:23. The experimental possibilities of Singapore's massive IT implementation program has drawn a number of firms eager to partake in the construction of a new informational space. For example, IBM, Digital and Microsoft have all become involved in developing networks for the city-state as a testing ground for implementation elsewhere. - Newsweek, 19/7/93.

[81]/ But see early works by L. Nicol (1985) "Communication Technology: Economic and Spatial Impacts," in M. Castells (ed.) High Technology, Space and Society, Beverly Hills: Sage Publications; or M. Hepworth (1989) Geography of the Information Economy, London: Belhaven Press and, of course, Pred (1973) op cit.

[82]/ H. Innis (1986) Communication and Empire, (rev. ed.) Victoria B.C.: Press Porcepic; H. Innis (1991) The Bias of Communication, (rev. ed.) Toronto: University of Toronto Press.

area has been programmatic rather than analytical, specific or concrete.[83] Part of the reason for a lack of much specific research on information societies/economies lies in the vagueness of the term information.

The term information is an extremely 'fuzzy' construct. Fritz Machlup, one of the founders of information studies, once called it "infelicitous, misleading and disserviceable... an all purpose weasel word."[84] Although many are sure we are headed into an information age, few are sure what exactly the content of such an age might be.[85]

In terms of defining 'information,' there is a distinction between the technical or 'hard' definition of information as any impulse transmitted from 'A' to 'B' and a 'softer' outline which emphasizes the way data is put 'inform.'[86] The technical approach facilitates throughput, but it is the soft-side which adds value. The tensions between these definitions are important to the shape of Singapore's niche in an emergent global 'information highway.'[87] The question is: will

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[83]/ Exceptions to this point include, M. Porat (1977) The Information Economy: Definition and Measurement, Washington: Office of Telecommunications; M. Jussawalla, D.M. Lamberton and N.D. Karunaratne (1988) The Cost of Thinking: Information Economies of Ten Asian Countries, Norwood, N.J.: Ablex and Hepworth (1989) op cit.

[84]/ F. Machlup (1983) "Semantic Quirks in Studies of Information," in F. Machlup and U. Mansfield (eds.) The Study of Information, New York: Wiley, pages 653 and 658.

[85]/ For example, Hall and Preston have examined the 'Fifth Kondratieff' which they refer to as the Carrier Wave. The Fifth Kondratieff (and its windows of opportunity) in their view will be driven by information. However, where the economic margins will accrue in the information-age is far from clear (though the vague notion of milieux of innovation, after Schumpeter is often evoked).

There is a tension in the literature between those emphasizing information equipment (which is in the end what Castells' Informational City is about) and those emphasizing communications and information processing (and the fusion of these activities in telematics) such as Mulgan. P. Hall and P. Preston (1988) op cit; M. Castells (1989) op cit; G.J. Mulgan (1991) Communication and Control: Networks and the New Economies of Communication, Oxford: Polity Press.

[86]/ See T. Roszak (1986) The Cult of Information: The Folklore of Computers and the Art of Thinking, New York: Pantheon.

[87]/ When asked if he felt that Singapore was an 'information-rich' environment, the Site Director for Apple Asia noted that perhaps a more precise term would be 'data rich.' - Interview with Site Director, Apple Asia, October, 1992.

it be a thoroughfare (i.e., a hardware relay) or an 'intelligent island' (i.e., a value-adding centre)?[88] Again, the crux of the issue revolves around the localization of global flows.

Increased communications capacity and localization brings one to Castells' dystopic rendering of the global information net. It is, in particular, the flow of information through global business channels which underpins Castells' vision of dissolving cities (i.e., his spaces of flows) as locations surrender more and more of their autonomy and characteristics to attract the evanescent flows of global business (and where value is accrued from movement).[89] However, the dissolution he points to would not seem to fully capture the Singapore example. Rather, it is the tensions and interdependencies between globalization and localization (including local agency) which are key.[90] For example, the importance of local differences are unlikely to disappear even with the deepening of global information space. Indeed, the importance of local specificity may be enhanced.

While network architecture was an important focus of concern for those I interviewed, corporate form and strategy were still fundamentally based on the articulation of specific markets and the manipulation of local specificities to corporate advantage.[91] Further, while

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[88]/ A number of global information companies such as Dow Jones Telerate and Reuters have set up operations in Singapore, but their investments have tended to be in hardware stations (for which 'secure' Singapore is an ideal location). In conversations with Telerate executives, it became clear that while Singapore was 'safe,' "Hong Kong is where the action is." Interview with Telerate representative, August 1992.

[89]/ Information and 'urban space' have an interwoven lineage. Pred's work pointed to the need to consider information flows in coming to terms with urban hierarchies and development. A. Pred (1973) Urban Growth and the Circulation of Information: The United States System of Cities, 1790-1840, Cambridge: Harvard University Press.

[90]/ This theme can also be found in Castells' work. See especially the earlier (1983) City and the Grass Roots Berkeley: University of California Press; or M. Castells, L. Goh and R. Y-W Kwok (1990) The Shek Kip Mei Syndrome: Economic Development and Public Housing in Singapore and Hong Kong, London: Pion.

[91]/ All TNCs emphasized the importance of various forms of networks for controlling product movements, capital flows and other corporate information. Yet, its focus was to utilize spatial difference and specificity, not to diminish it.

See also the comments of Kenichi Ohmae (1990) "Beyond Friction to Fact: The Borderless Economy,"

global networks allow for an expansion of spaces of control, there are still important central nodes within the firm and its architecture. While the spatial strategies of interviewed firms were variable, a common point was the centrality of Singapore. The expansion of control capacity makes the specific characteristics of central places of operation even more crucial, not less so.

Although there is a good deal of inertia within the hierarchy of world cities due to engrained patterns of circulation[92] and the importance of economies of scale in global services,[93] some locales are struggling to (re)position themselves within the global grid by providing settings conducive to the production of global command and co-ordination functions. Singapore is striving to create a 'local' environment conducive to attracting and anchoring shifting global corporate flows.

When considering corporate flows and their articulations with local milieux, three aspects stand out, all three are predicated on informational capacities. These are: 1) command and control functions; 2) financial transactions (internal and external); and 3) manufacturing/production logistics. Although the weightings of these three sets vary with a firm's activities, it is important to keep the interdependencies of the various flows in mind.

The argument for an integrative approach needs some refining. For example, Lash and Urry have suggested that a key development in the globalization of economic activity has been a separation of production/goods flows (the hard economy) and financial/symbolic flows. It is

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New Political Quarterly, Spring, pages, 21-22 where he emphasizes 'localized globalism.'

[92]/ This idea of the inertial aspects of flows of information was put forward by Alan Pred (1973) Urban Growth and the Circulation of Information: the US System of Cities 1790-1840, Cambridge: Harvard University Press, but strongly echoed by Mitchell Moss, see for example M. Moss (1991) "The Information City in the Global Economy," Cities of the Twenty-First Century, New York: John Wiley and Sons, pp. 181-190.

[93]/ See Daniels (1993) op cit, pages 44-45; or Sassen (1992) op cit.

this disconnection which lies at the heart of their model of dis-organized capitalism. Referring to Susan Strange's work, they write,

> Particularly important for Strange is not the structural power over the economy, but the more specific structural power over *credit*. This is distinct not only from control over production, but also from the role of money merely as a means of circulation. It is this power to create credit that has been the major basis for de-territorializing (or de-nationalizing) the world economy. What has been set up is a system of credit, separate and de-synchronized from the global system of production.[94]

Their model may be too focused on divisions and categories to capture the full (and local) dimensions of current global shifts. While the credit/symbol-goods split may be important (though one need not fully agree with the model as a whole), there are also a number of points of intersection of global flows which still need to be addressed and which are fundamentally linked to local places. This point of intersection of various global flows is occupied by informational filiere.

An earlier section of this chapter drew out the important links between the informational and product flows. Similar (if not stronger) links could be drawn between information-people and information-capital flows.[95] The overlay of information flows and the movement of goods, people and capital are important to understanding circulatory trends. However, as this study has argued throughout, such flows are best understood in situ. It is in the intermingling and interdependencies (or separations) of the flows of goods, people, money and information in specific milieu where value is generated and economies outlined. In particular, the role of information generation and utilization is increasingly moving to the fore within all aspects of

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[94]/ S. Lash and J. Urry (1994) Economies of Signs and Space, Thousand Oaks: Sage, page 285.

[95]/ See for example Susan Strange (1990) "Finance, Information and Power," Review of International Studies, 16, pp. 259-274, page 263; M. Hepworth (1991) "Information Technology and the Global Restructuring of Capital Markets," in S. Brun and T. Leinbach (eds.) Collapsing Space and Time, London: Harper Collins, pp. 132-148, pages 138-139.

economic activity.

Manufacturing[96] and finance centres[97] are increasingly seen less as mechanistic cogs in the flow of commerce and more as dynamic, reflexive learning machines where innovations are 'produced' and systems of economic practice generated. It is in the innovational potentials and informational densities that the key to the global city's success is found.

The growing role of information orchestration brings one to Castells' image of the "Informational Mode of Development." The idea of the informational mode is premised on two interrelated themes. These are: 1) the role of information utilization in explaining productivity increases outside of factor utilization; and 2) the increasing prevalence of information flows as the filiere which bind together a thickening transactional environment and which become sources of accumulation; Both of these points have clear relevance to the Singapore case. Castells model emphasizes the role of information in developing productivity levels - which are in turn crucial to Singapore's continued success. As he has written,

> Although econometric equations are obscure in identifying the precise sources of the new productivity pattern, the 'statistical residual' found to be critical in the new production function has often been assimilated to the new inputs represented by the deeper penetration of science, technology, labour skills, and managerial know-how in the production process.[98]

The statistical residual of which Castells writes is partially explained by a deepening integration of economic actors. As outlined above, Singapore is ahead of the market in developing transactional systems. However, these systems need content and supportive volumes which are achieved through a mix of global, regional, and national economic activity.

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[96]/ Lash and Urry (1994) op cit, page 122.

[97]/ Sassen (1991) op cit.

[98]/ M. Castells (1993) "The Informational Economy and the New International Division of Labour,." in M. Carnoy, M. Castells, S. Cohen, and F.H. Cardoso (eds.) The New Global Economy in the Information Age: Reflections on our Changing World, University Park, Penn.: The Pennsylvania State University Press, pp. 15-43, page 16.

Crucially, except for Singapore's own national activity (and not all of that) these flows are not dependable. The very technologies the city-state is pushing also help to increase the mobility and potential transience of this sources of wealth.

In the end the only guarantee against being bypassed by global flows is to become a local site of production. Production in this sense includes financial (e.g., Sassen's vision) and informational/symbolic products. It is Singapore's capacity to act as a global innovation centre which lies at the base of its sustenance as a global hub and from where its continued competitiveness must come. The Growth Triangle is useful in supporting the Republic's turn to informational activities.

3. A Place of Flows: Producing Innovation

For Singapore to succeed as a global information node, it must do more than provide alluring incentives, advanced infrastructure, good marketing and informational capacity. It needs to become a site for the production and manipulation of high value-added information products (which include financial and manufactured products).

The Growth Triangle supports the city-state's push to become an information centre in a number of basic ways. This is so for two reasons: 1) it keeps higher-order functions close to production activities: the shop floor (e.g., to facilitate concurrent engineering); and 2) it provides economies of scale for Singapore's knowledge sector.

It is important that design, marketing and managerial teams are close to the shop floor. In this way, an industrial complex may be seen as something of a learning machine. This theme was at the forefront in discussions with EDB planners and a number of managers. New forms of corporate organization require tighter bonds throughout the production matrix. External economies of agglomeration are also important to advanced services.

The need for training in the shadow region provides economies of scale for Singapore's training institutes which could not be found in the city-state itself. Singapore seems well on its way to becoming the regional training centre for a wide range of occupations (including and especially those emerging within the Growth Triangle). The export of training skills helps to enhance Singapore's move into 'knowledge industries,' supports economies of scale and helps to improve relations between Singapore and its neighbours.

Having outlined some of the government's policies for enhancing the nation's informational capacity and the links between these approaches and the Growth Triangle, it still needs to be noted that technological and institutional fabric is not enough to spur on a successful information-based economy. There also needs to be a social capacity for innovation. Singapore must have a 'research culture' and needs to attract researchers to a 'conducive environment.'[99] Such an environment would require basic changes in the Republic's *genre de vie*.

"To continue its sensational record of growth, Singapore will have to give up authoritarian controls both on the flows of information uniquely offered by markets and on the fits of contrarian creativity imparted by innovators and entrepreneurs."[100] Yet, their are few 'spaces' for such creativity to emerge in the highly planned and close-knit society.[101] The search

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[99]/ Man Bow Tan, Minister of State for Trade and Industry and Communications - cited in Straits Times, 7/5/91:38; or see comments of George Yeo, Minister for Information and the Arts in Straits Times, 27/9/92:23 on the need for openness.

See also Blakey's comments that "new firms start up and location of high technology employment is a result of density of knowledge not cheap labour." E. Blakely (1991) "The New Technology City: Infrastructure for the Future Community," Cities of the Twenty-First Century, New York: John Wiley and Sons, page 231.

[100]/ R. Rapaport (1993) "Singapore: Still Onward and Upward?" Forbes, 29/3/93, pages 78-88.

[101]/ The regulated and controlled nature of the society has left many Singaporeans wondering if they have made their society too sterile. The control and regulation may increase as the city moves into the information age where surveillance capacity will increase. Pervasive information systems serve to enhance the surveillance capacity of the government. The 'wired city' may also be seen as the ultimate panopticon where the state sees all. The information revolution is tailor-made for an intrusive state such as Singapore's. For a discussion of the panoptic

for an innovative environment, open to external information flows, in tightly (socially) controlled Singapore is likely to be the key issue facing the city-state in the future.

A key aspect of Singapore's success to date has been the ability to maintain social order in the context of extremely rapid economic transformation.[102] The same forces which have made the streets so clean and which underpin investor confidence may also be seen as paternalistic and limiting the nation's innovative capacity (so crucial to value-addition).[103] The shift to informational activities is unlikely to lesson this tension.

a) Informational Dialectic: Ideologies of Change

The tension between control and innovation is aggravated when information becomes a prime economic commodity. When information becomes the economic core of a nation's economy, the control and generation of information is even more overtly important. As part of the national competitive advantage, information must be focused on the 'common' goals. Information must be directed towards the national progression (e.g., the Next Lap).[104] In this light the representation of the information transition is integral to the maintenance of the *status quo*.

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effect of information systems, see Mark Poster (1990) The Mode of Information, Chicago: University of Chicago Press, pp. 91-98; and Webster and Robins (1986) op cit, pp. 344-347; or Mulgan (1991) op cit, page 24.

[102]/ See for example, N. Neville and M. Neville (1980) Singapore: A Disciplined Society, Singapore: Heinemann Publishers or S. Quah. (1983) "Social Discipline in Singapore," Journal of Southeast Asian Studies, 14, pp. 260-289; As of late, officials from China have began to come to Singapore to study techniques of maintaining social control along amidst rapid economic change. See example in Straits Times, 19/7/92:2.

[103]/ For a bizarre and extreme take on this paradox see William Gibson (1993) "Disneyland with the Death Penalty," Wired, 4, Wired On-line. For a more conventional reading of the dilemmas in increasing political openness, see G. Rodan (1993) "Preserving the One Party Sate in Singapore," in K. Hewson, R. Robison and G. Rodan (eds.) Southeast Asia in the 1990s: Authoritarian Democracy and Capitalism, St. Leonards, Australia: Allen and Unwin.

[104]/ Malaysia is also 'guilty' in this regard. The role of the local press has been presented by the government as 'a partner in nation building' - see for example comments by Haji Samad on the release of his paper "Vision 2020 - The Role of the Press, Press Ethics and Responsibilities" - New Straits Times, 13/11/91:13.

Rather than being seen as a stage in social and economic evolution (and as such grounded in the present), the information transition is posited as a disjuncture.[105] The importance of representing the information transition as a disjuncture lies in two areas. First, it keeps the nation's eyes forward looking (the 'goal' helping to weld actual action). Second, the presentation of the information society as a "new age" allows for the appearance of social change[106] (e.g., the IT 'revolution') conducive to maintaining the *status quo*.

The new age can be positioned as an era where new opportunities may arise and older limitations evaporate. The implications of such alterations should not be underestimated in a small, relatively clausterphobic city-state like Singapore.[107] The deepening of control capacity is met by an apparently paradoxical flux in the spaces of everyday life and the potential mayhem which characterizes the multiple horizons of information 'spaces.'

Information technologies are transforming circulatory capacities, but also conceptions of space. They provide the potential for Singapore to finally fully shake the bounds of its diminutive size and to reach its global aspirations. The wonder of the possibilities of the

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[105]/ See NCB (1992) op cit, for examples of this position; see also the various workings of this theme (i.e., of mythology of change) in M. Traber (ed.) (1988) The Myth of the Information Revolution, Newbury Park: Sage; for a more moderate examination, see J.R. Schement and L.A. Lievrouw (1988) "A Third Vision: Capitalism and the Industrial Origins of the Information Society," in J. R. Schement and L.A. Lievrouw (eds.) Competing Visions: Complex Realities, Norwood N.J.: Ablex .

It is the presentation of the information transition as a frontier which allows for the concept's malleability (reminiscent of the Growth Triangle).

[106]/ This position is strongly argued in Webster and Robins (1986) op cit. An apt demonstration of the jingoism to be found in the infotopia model is to be found in a Straits Times special entitled "Networked." It notes, "Big, exciting plans are afoot to make Singapore the world's first fully-networked society in which computers will link up homes, businesses and government services. If the goals are met, they would bring about nothing less than a revolution in the way Singaporeans work, live and play." Straits Times, 4/6/91:2(Life).

[107]/ In an illustration example of the possibilities of extending the cyber-space of Singapore, outbound Internet traffic from Singapore increased over 3,000% from September, 1991 to June 1993. This rate of growth was amongst the highest in the world. - G. Staples (1993) Telegeography, London: International Institute of Communication, page 16.

coming years is expressed in the following lines gleaned from Singapore's National Computer Board:

> Singapore will be transformed into an intelligent island wired into one huge electronic network where information can be accessed any time, any place, anywhere.[108]

The disorientation of space which the information transition may facilitate may be seen as a continuation of already present tendencies in the way the Singapore government manages local space for global positioning. Rodolphe DeKoninck has cited the continual 'revolution of territory' as a defining element of the Republic. He has written about the constant reworking of the landscape (i.e., new coastlines, town centres, etc.). He notes that,

> ...the repeated erosion or at least the ephemeral character of all spatial bearings at the local level allow for only one level of territorial allegiance: that of the Republic of Singapore... aren't the average Singaporeans caught in such a whirlwind that they have no choice but to hang on...or drop off.[109]

The topography of the information-age frontier is highly amorphous. But, in Singapore, standing above that morass is the state. The modernist paternalism of the development state finds an awkward accomplice in the post-modern flux of an information society.

The tension between fluidity and control (again, having its basic roots in the global/local nexus) is of great concern to the likes of Lee Kuan Yew. He sees the need to engage global

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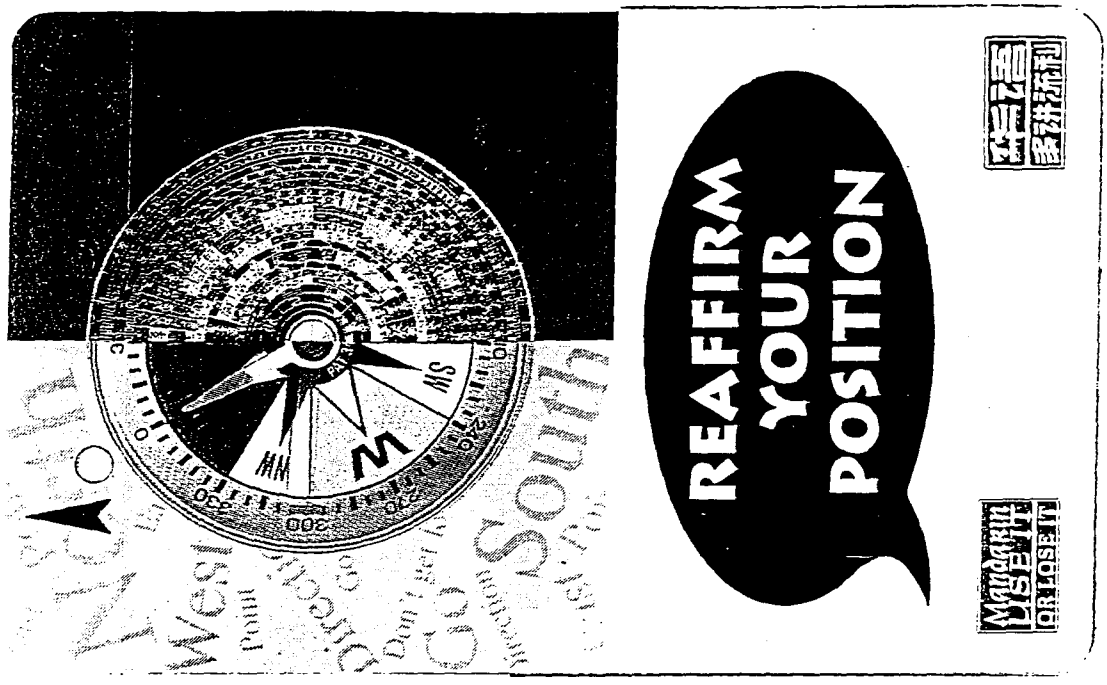
[108]/ National Computer Board General Manager (head) Mr. Ko Kheng Hwa - cited in Straits Times, 4/12/91:17.

[109]/ Rodolphe DeKoninck (1992) Singapore: An Atlas of the Revolution of Territory, Montpellier: Reclus, pages 11 and 12. This is an interesting twist on a theme developed by Jameson. He also argues for the importance of the destabilizing of cognitive mapping, but rather as a result of transnational capital than of the local state. For Jameson the fragmentation of world views undercuts the capacity to rebel, and thus the cacophony of voices is the key to continued suppression. Here to the Singapore case seems exceptional. It could also be said that an influx of information can help break hegemonies such as in Singapore. - See F. Jameson (1984) "Post-modernism, or the Cultural Logic of Late Capitalism," New Left Review, 146, pages, 53-92; see also the expanded F. Jamieson (1991) Postmodernism: The Cultural Logic of Late Capitalism, Durham: Duke University Press.

Figure 11.4
Fixing Identity in the Global City-State



Source: Singapore, Mass Rapid Transit, Fare Card

information flows, but also the need to 'protect' the locality. In 1990, referring to Meyerwitz's No Sense of Place[110] he argued for the need to 'protect' his population from elements of the emergent global information-scape.[111] The maintenance of control over a globally articulated information society may require a strong cultural base.[112] This theme is crucial to Singapore

[110]/ J. Meyorwitz (1985) No Sense of Place: the Impact of Electronic Media on Social Behaviour, New York: Oxford University Press.

[111]/ He suggested that information that was coming to Singapore through the mass media was 'decontextualizing' events, such as Tiananmen and 'People Power' in the Philippines and that people might try and relate the revolt to Singapore.

[112]/ A book entitled In Search of Singapore's National Values outlines the core values as expressed by the government. These are: 1) community over self; 2) upholding the family as the basic building block of society; 3) resolving major issues through consensus not contention; and 4) stressing racial and religious tolerance and harmony.

and is likely a key element in the city-state's increasing invocation of Confucion values.[113] The neo-Confucian ideals of Lee and others are designed to provide a foundation for the city's global aspirations. This foundation is closely linked with growing emphasis on Chinese values and even the Chinese language. Figure 11.4, a fare card from the city's ultra-modern mass transit system, captures something of this dualism. The push towards establishing a base set of ideals sits within a tradition of strong discourse control which may limit the innovational capacity needed to spur on an information-biased economy.

Within Singapore, debates are highly circumscribed by 'unseen boundaries.' As Straits Times reporter Chevian George has suggested, a lack of explicit boundaries was the genius of the system of government controls. "The out of bounds markers are not clearly defined until you cross them."[114] The subtlety of discourse formation is also found in the following comment from the newspaper's political desk.

> Ultimately, as Singapore attains a greater degree of societal consensus, the OB [out-of-bounds] markers can and will be moved back. The there will be even less need to make the futile attempts to define them. Or as someone once said, "the more we agree, the more we can agree to disagree."[115]

Singapore is a city-state designed to expedite the private production and circulation of information (for example, for banks), but where 'public' information is closely guarded and controlled. It is this uneven intersection of globalization and localization of information flows where the kernel of Singapore's future trajectory lies. Mediating the local and the global is the

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[113]/ See Fared Zakaria (1994) "Culture is Destiny: A Conversation with Lee Kwan Yew," Foreign Affairs, 73 (2), pages, 109-126; or Khun-Eng Kuah (1990) "Confucian Ideology and Social Engineering in Singapore," Journal of Contemporary Asia, 20 (3), pages, 371-383.

[114]/ Cited in New Straits Times, 9/11/91:18.

[115]/ Warren Fernandez, writer with the paper's political desk - Straits Times 22/11/91:32. See also discussion in J. Lent (1984) "Restructuring the Mass Media in Malaysia and Singapore - Pounding in the Coffin Nails?" Bulletin of Concerned Asian Scholars, 16 (4), pp. 26-35 where-in the important dimension of concentrated corporate control of the media is addressed.

state. State power is closely bound up with the control of information. For example, the stories representing Singapore's role and its successes to date - the 'official story' is part of the construction of state power.

4. Narratives of Change

The narrative of Singapore's success has been replayed many times over for the Republic's citizens. The success has always been placed on a world-scale. Singapore stands out among the 180 nations of the world as one of the great economic success stories. It is also written at the local level in every newscast, subway stop and new investment. The self-evidence of the nation's success has been key to the formation of state power. The state needs these representations to continue its pervasive power (and to continue to attract investment). In the regional margins, this process is being worked out in an eclectic manner. In one way, Johor and the Riaus serve as reminders of the state's creative power (e.g. in new projects), and in another, they reflect how far Singapore has come.

Singapore is coming face to face with the ultimate aspect of global-local nexus -- identity. The Growth Triangle may be linked to this development in the way it serves to establish the city-state's identity through the concrete construction of new spaces and the re-discovery of its past through the development of the Riaus and Johor. For example, to many Singaporeans, Johor Bahru is reminiscent of "what Singapore was like 20 years ago."[116] Singapore has come a long way in the last 20 years, yet in doing so it has had to, and will have to leave some of the old Singapore behind, or at least move it to the countryside.

The landscapes of Johor and the Riaus also reflect spaces of representation closer to Lefebvre's vision. They are sites of escape/resistance from the (still increasingly) ubiquitous

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[116]/ See the Straits Times, 8/11/90:17, or especially an article entitled "JB's Pleasure Dome," Straits Times, 2/3/90:5.

control of the government. The frontier of the Growth Triangle is something of an escape hatch from the controlled discourse of contemporary Singapore.[117] In Johor Bahru's Holiday Plaza, there is shop which captures this theme. It brandishes bubble gum, Cosmopolitan (both outlawed in Singapore) and a controversial book on Lee Kuan Yew entitled Singapore, the Ultimate Island: The Untold Story of Lee Kwan Yew. A sign above the book notes, "not for sale in Singapore, but not banned either."

E. A PICTURE OF DORIAN GREY

In trying to portray the nature of integrated change in the regional ensemble, one is struck by the resonance of a story by Oscar Wilde entitled A Picture of Dorian Gray. In the story, an English dandy avoids the wages of his lifestyle (and of age) by having them transposed to a portrait of himself locked away in his closet. The portrait takes on the markers of time and 'the good life' while Dorian remains young and fresh-faced.

In a similar vein, the emergence of a 'New Singapore' is only one part of a wider, regional set of changes. The goals and policies imbedded in Singapore's vision of becoming an 'intelligent island' also have strong repercussions for Johor and the Riaus. As Singapore pushes itself towards being a cleaner, greener 'tropical city of excellence' focused on high value-added activities and increasingly on amenities,[118] the flip side of the high-order service economy[119] is being etched into the landscapes of Johor and the Riaus. In Singapore, the closet

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[117]/ As Malaysia's New Straits Times has put it, "Johor Bahru is many things to Singaporeans - a hinterland of vast business opportunities, a land of less rigid laws, a place where homes are cheaper, the speed limit is higher and where chewing gum is freely available." - New Straits Times, 19/4/92:12.

[118]/ The physical manifestations of this evolution are outlined in, Republic of Singapore, Urban Redevelopment Authority (1991) Living the Next Lap: Towards a Tropical City of Excellence, Singapore: Shing Lee Publishers Pte. Ltd.

[119]/ The push towards higher order services has led Philip Kelly of UBC Geography to introduce the term HORSE - Higher Order Restructured Service Economies. - Personal Communication.

in which Dorian Gray kept his aging portrait is just across the border in the pleasure and production peripheries of Johor and the Riaus.[120] The contrast is stark, yet intrinsic.

F. ISLANDS IN THE STREAM: RIVERS OF CHANGE

Near the 'Old Bridge,' across the Singapore river, looking to sea, sits the symbol of the city-state, the Merlion. Behind it, within an arc of some three kilometres is one of the key global crossroads. The landscape of the crossroad is mixed, but ordered.

At the heart of that crossroad is the vast green expanse of the cricket grounds. It sits empty most days, but provides a contrast to the towers that hem its margins. From here, one can easily stroll to the looming bank buildings of Raffles Place, go to Raffles Hotel's Long Bar for a Sling (souvenir glass included), stop in at Suntec city or watch the 'boxes' flow through the port. The 'quietest' building within this ambit is the government house (though its influence is everywhere). It sits across the river from the banking centre. The river dividing these two realms has been cleansed of its crowds of 'bum boats' and the fetid smell which hung over the area in the 1960s and 1970s.[121] It is now ringed by heritage bistros heralding the good life for the city-state's information workers.

In Johor, the rivers also look very different today than they did 15 years ago. The Segget river (which runs through Johor Bahru) and the Sungai River (which cuts through major housing estates like Taman Seri Tebrau and Taman Sentosa),

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[120]/ Johor, and especially Batam, are often jokingly referred to as 'Singapore's backyard' by Singaporeans. Johor and Batam are where old taxis and machinery are discarded when their days in Singapore are done.

[121]/ This according to the well developed olfactory organs of T.G. McGee.

> look more like sewage canals because of the indiscriminate dumping of garbage. And now, a little-known waterway, Sungai Sebulung, which cuts through Kampung Melayu Majidee and Kampung Bendahara, is falling victim to pollution too. The water is black.[122]

A number of the state's rivers in and around Johor Bahru are now said to be "biologically dead."[123] A water treatment centre had to be temporarily closed due to the very high level of contamination.[124] State Tourism and Environment Committee Chairman, Datuk Jimmy Low has said that it would be difficult to stop the pollution in the river because of rapid industrial development in the area. "We can only control pollution in the river but I don't think that we can do anything to prevent it altogether."[125]

G. SHADOWS BENEATH THE WIND

The motif, 'shadows beneath the wind,' provides a metaphor for the changing global-local nexus along with a shift from tangible streams of commerce (e.g., rubber or disk drives) to the seemingly less tangible winds of capital and information. The increasingly fluid and turbulent gales of capital and informational flows are reworking the landscapes and livelihoods of the region.

The invocation of the term 'shadows' is in part a reference to Castells' dramatic vision where-in the 'spaces of flows' comes to supersede the places of experience and agency and "life

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[122]/ New Straits Times, 25/10/91:6.

[123]/ New Straits Times, 21/06/92:10; See also Straits Times, 17/10/92:20..

[124]/ Interview with residents of Senai, October, 1992.

[125]/ New Straits Times, 1/10/92:6; or see New Straits Times, 14/08/92:01; or Straits Times, 13/1/91:2.
JSEDC Chief Ali Hashim has not expressed much concern. He has said, "People forget the unemployment in 1985 and 1986" -- "and as for the rest, the alleged pollution, etc.; it is for the federal authorities like the department of environment to consider." - S. Jayasankaran (1991) "A Bone Fide Success Study," Malaysian Business, Jan 16-31, pp. 10-14, page 11.

is transformed into abstraction, cities into shadows."[126] Although I have argued that Castells' vision is somewhat overdrawn, the political and ideological tensions between 'global forces' and local agency are important in piecing together a portrait of regional change. As I have argued, in regard to globalization (which is in essence the growth of the space of flows), local agency and specificity are still crucial to the formation of the spaces and places of contemporary global capitalism. It is the tension between globalization and localization which draws the eye. The tension is uneven, and the unevenness is revealing.

This said, in the pursuit of capturing global winds, the 'rights' of local citizens have indeed been subsumed, but not by 'global capital' or 'spaces of flows' so much as by local states. The evacuation of land rights on Batam and the power of JSEDC in Johor illustrate this tendency in the regional margins. In Singapore, the same trend has long been in evidence, but now in a more subtle guise. It is more deeply buried in the discourses of Confucianism, the information age, globalization and the Growth Triangle itself.

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[126]/ Castells' view is that new information channels have undercut the role of local citizens in creating their place. For him, the information based world city is a place where "life is transformed into abstraction, cities into shadows." - M. Castells (1983) The City and The Grass Roots, Berkeley: University of California Press, page 314. On the information economy he writes, "There will remain switched off wireless communities, still real people in real places, yet transformed into urban shadows doomed to haunt the ultimate urban dream of the new technology." - M. Castells (1985), "High Technology, Economic Restructuring, and the Urban-Regional Process in the United States," in M. Castells (ed.) High Technology, Space, and Society, Beverly Hills: Sage, page 16. See also M. Castells (1989) The Informational City, Oxford: Basil Blackwell.

CHAPTER XII

TRIANGULATIONS: A CONCLUSION IN THREE PARTS

> Singapore at that time was like the sun when it has just risen, waxing stronger and stronger as it gets higher and higher...I am astonished to see how markedly the world is changing. A new world is being created, the old world destroyed. The very jungle becomes a settled district and elsewhere a settlement reverts to jungle. (Raffle's scribe, Abdullah, circa 1820)[1]

> This space is founded on the vast network of banks, business centres and major productive entities, and also on motorways, airports and information lattices. Within this space, the town -- once the forcing house of accumulation, fountainhead of wealth and centre of historical space has disintegrated. (H. Lefebvre 1991).[2]

A. PARADOXES, PARADOXES: MOST CONFOUNDING PARADOXES

How does a city-state like Singapore continue to thrive when the disintegration of 'the urban' as a category would seem to be upon us? The answer lies in the realizations that: 1) cities were never really isolated entities; and 2) the unevenness of space which urban development heralded is still key to the geographies of accumulation. The unevenness of spatial transformation is characterized by the diffusion of some activities across space and the

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[1]/ A.H. Hill (ed.) (1970) Hikayat Abdullah (The Story of Abdullah) Kuala Lumpur: Oxford University press, page 158-159.

[2]/ Henri Lefebvre (1991) (Trans. Donald Nicholson-Smith) The Production of Space, Cambridge Mass.: Blackwell, page 53.

continued concentration of other activities in central places. It was in investigating the former trend that this study began.

My specific quest seemed a concise one: to examine the 'mega-urbanization' process transforming Singapore's hinterlands. I would need to outline the development of a range of 'urban traits' in 'rural spaces' and, in that way, question the definition of 'the city' as a spatial category, thus questioning the numerous models premised on the rural-urban divide (e.g., the urban transition).

In a wider frame, evidence of the 'urbanization' of the countryside in the periphery of Singapore could be added to ongoing studies throughout Asia and the model of mega-urbanization as spatial change refined and detailed. I found the going much thicker than I had imagined.

I am not sure when it hit me, but I began to realize that the quest to document a mega-urban case study was a beginning not an end. The 'disintegration' of the city as a unit of analysis has a number of logical, yet paradoxical corollaries, and these are the major themes of this study.

First, in order to fully engage the scope, fluidity and dynamism of mega-urbanization, one needs to go beyond the critique of 'the urban' and reconsider other categories with which we carve up the world. Paradoxically, coming to terms with the very concrete changes sweeping the region of my concern required a more fluid and contextual utilization of such interpretive constructs as capital, labour, land, the region and space.

Second, without convenient rural-urban sign posts, the openness, nuances and complexity of the emergence of new spaces came much more to the fore. I have found that the prime vectors of spatial change underlying the concrete transformations occurring within the regional

ensemble are also decidedly fluid. They are movement and perception. In particular, the streams (or circulation) of goods, people, money and information through the region are critical to the understanding of grounded concrete change. Growing levels of integration (which lie at the base of the disintegration of the city as construct) have not led to a homogenization of space, but rather to its continued differentiation. My approach has been to emphasize circulation and spatial interaction as a key interpretive motif for understanding areal differentiation.

Third, unbounding one's research approach widens the quest. During my research sojourns in the tumultuous landscapes of Johor and the Riaus, I began to realize that it was not only 'the city' that was coming to the countryside, but the world. To understand the changing geographies of the mega-urban belt required confronting the global-local nexus. The intermingling of globalization and localization, especially as mediated via Singapore, are fundamental to any interpretation of the changes sweeping Johor or the Riaus.

Paradoxically, although the boundaries between the global and the local are increasingly diffuse, there is still a niche (though a difficult one) for examining the meso, middle or regional scale. The meso-scale is still an important level of analysis because new regional spaces are being created even as the connectivity of 'global' and 'local' spaces would seem to be growing.

Singapore's regional ensemble is but one of a number of supra-regions emerging within the post-NIDL global economy. The reassertion of regional economies should tell us that they are an important apparition in contemporary global capitalism and a useful milieu of inquiry. The study of the Growth Triangle may be set within a more generalized shift towards regions or 'territorial complexes,' as the cauldrons of economic activity and as units of analysis, and

away from notions emphasizing the corporate form and the New International Division of Labour as being the scripts from which local dramas are played out. As Storper and Walker put it: "territorial complexes are the dominant modes of organizing production, not giant corporations."[3] This point need not be taken to mean that corporate form and strategy are unimportant but rather that they can only be understood within the frame of specific milieux where transactions are realized, where space is re-organized and where linkages to other locales are developed and felt.[4] The present study has examined one such regional space which includes and surrounds the Republic of Singapore. I have used the emergence of the meso-scale entity of the Growth Triangle as a gateway to other considerations which come to the fore when one considers the production of middle space.

B. MIDDLE SPACE(S)

The term 'middle space' has been evoked in three main ways in this study. These include: 1) the middle spaces between 'the global and the local' (in this case, formation of an open region); 2) the middle spaces of circulation (i.e., connections between firms, places and people); and 3) the middle spaces of conceptualization spanning analytical dualities (e.g., urban/rural).

1. The Middle Space of the Global-Local Nexus: The Open Region

The present study highlights the fallacies of the global-local chasm. Globalization has

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[3]/ Storper, M. and R. Walker (1989) The Capitalist Imperative, New York: Basil Blackwell, page 126; see also S. Sassen (1991) The Global City, Princeton: Princeton University Press.

[4]/ As Storper and Scott have put it, "Put simply, the historical dynamics of socio-economic systems can only be fully comprehended in geographical context" - M. Storper and A.J. Scott (1986) "Production, Work, Territory: Contemporary Realities and Theoretical Tasks," in A.J. Scott and M. Storper (eds.) Production, Work and Territory: The Geographical Anatomy of Industrial Capitalism, London: Unwin-Hyman, page 13.

One should be wary of what Massey has identified as a tendency for some to elide the concepts of local and concrete (e.g., anything not local is abstract). D. Massey (1993) op cit, page 129. This is not quite what I am arguing. I am suggesting that 'grounded' spaces of transformation (and generation) are useful lenses for interpreting wider dynamics such as circulatory change.

important 'local' roots and implications. In turn, it is evident (especially in the extreme case at hand) that 'local' changes can not be fully separated from wider contexts. This thesis illustrates that it is the tensions between globalization and localization which yield the most telling insights into the textures of contemporary global capitalism as it is realized in a specific milieux. It is certainly the tension between globalization and localization which lies at the heart of the current issues facing the Singaporean economy, polity and society and which is pushing the formation of the regional ensemble known as the Growth Triangle.

The shadow realm of 'middle space' is an awkward realm: diffuse, unstable and uneven. It is a difficult analytical landscape to traverse. It has different looks from different angles and may require wider explorations than other arenas of analysis and may be only lightly mapped. Yet, for all of its drawbacks, the examination of middle space has served to highlight a number of theoretical issues and to illuminate something of the regional holism and essence.

As I have demonstrated, one can not fully engage the changes transforming any single part of the Growth Triangle region without considering the region as a whole. It is in the shadow belt girding Singapore that so much about the city-state itself may be revealed and in the changes in the core that so much of the direction of change in the margins is outlined. The individual elements must be approached as a regional ensemble.

The regional grouping of which I speak is only lightly circumscribed. The Growth Triangle must be seen as an 'open region.' It is subject to a great deal of 'external' interaction and has a malleable profile. These facts do not make the regional approach any less useful from an analytical point of view. It is through unbounding the regional construct that the tensions and nuances of regional production come to the fore. The open regional approach considers both representations of the region and the importance of 'external' influences. An

understanding of the transformation of the Growth Triangle would have been greatly diminished in the absence of these two considerations. Linking both external integration and representation is the importance of circulation.

2. The Middle Space of Circulation

An emphasis on circulation is occasionally framed as oppositional to the tradition of areal differentiation. I have shown how the 'annihilation of space through time' does not mean that space will become more homogenous or that circulation will become less important. The increasingly important, nuanced and uneven spaces of movement are deeply under-theorized, especially given their ubiquitous importance. The geography I have written is about this realm.

The historical expansion and growing importance of the middle space of circulation is a critical ingredient of economic transformation (and is the basis of globalization). Over time, this space has expanded (i.e., the separation of production and consumption) and as a result, grown in importance. Forms and processes of circulation come to affect, and are affected by, the nature and location of consumption and production (and thus local geographies).

As the spatial ambit of the marketplace between consumer and producer has grown, a number of trends have become apparent. First, integration has brought 'external' dynamics to bear on local milieux (in the form of new opportunities and perils). This trend involves: a) wider market reach and thus bigger markets for local producers (this aspect is key to Singapore's success and the deepening division of labour it is now experiencing); b) higher levels of competition and instability as distant developments can deeply affect local economies (this realization is fundamental to Singapore's geo-economic strategies and sense of

vulnerability); and c) an increased need for representation (for products [labelling] and for spaces, such as the Growth Triangle).

Second, the combination of the tendencies to market integration and to separate production and consumption has led to a paradoxical mix of homogeneity (based on increasingly similar operating environments and the mass production of products) and heterogeneity or differentiation (based on local contingency and instrumentality).

New spaces of economic activity such as the Growth Triangle affect and reflect changes in the 'spatial fabric of circulation.' The arena of circulation is constantly undergoing changes in constraints and possibilities in the form of technical and social changes and the resolve of individual agents engaged with newly emergent possibilities that evolve along with changes in the spatial fabric of everyday practice and market dynamics.

As outlined in the preceding sections, the elements of capital, people, goods and information have differential movement capacities (between one another and even within themselves as categories).[5] For example, distance and borders are much more transparent to capital and information than to people or goods. The unevenness of circulatory change is part of the ongoing differentiation of space.

a) Integration/Differentiation

The entire Growth Triangle project is predicated on the uniqueness of its offerings and differences within the Euclidian frame. In some areas, this differentiation is stark. It is facilitated by the borders which highlight different spaces of regulation and social reproduction. In other areas, such as the differential circulatory spaces which characterize the region (i.e., intensive/extensive globalization), the differentiation dynamic is more diffuse (but no less

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[5]/ This unevenness is what Massey calls 'Power Geometry.' D. Massey (1993) Space, Place and Gender, Cambridge: Polity Press, pages 148-149.

striking) in its outlines. Consider the variations in connectivity between Singapore and Kukup or Bulan Island, not 20 kms from the CBD.

Differentiation is a subtle mix of globalizing and localizing tendencies. It does not, for example, mean that all places will necessarily become increasingly more different. Indeed, the consistency and familiarity of the mega-urbanization process would seem to suggest homogenization rather than growing distinctiveness. Further, while the new employment possibilities coming to rural areas have created new labour pools and fractured local experiences along gender and ethnic lines, the firms are looking for a very specific (homogeneous) type of employee -- young women between 18 and 24. The key to this contradiction is to be found in a consideration of scale.

At the macro-scale, there is a convergence of patterns of economic activity. Yet, and this is perhaps the key paradox, at the local scale, the face of convergence is difference. This convergence in difference, then, is key to the globalization process. Local milieux are facing new forms of diversity, but global variety is generally decreasing (i.e., similar operating environments). In a further ironic twist, it is this tendency to harmonization which enhances the importance of connectivities and the representation of difference as localities strive to attract fluid resources.

b) Integration/Representation

I have placed more emphasis on representation than might usually be the case in a study of this sort. This bias has a good deal to do with the research concern. The Growth Triangle is 'a product,' and as a product, it is subject to varying forms of representation. Regional attributes are selectively highlighted and some are, indeed, manufactured. Yet, the imagery and mythology of the region does come to have concrete effects. For example, the region's mix of

factor endowments has come to mimic the profile of the represented distinctions. The representation of difference is made more important by new forms of integration.

c) Integration/Patterns of Circulation Revisited

Within the discipline of economic geography, changes in circulation are often considered in light of how they reflect what are called time-space relations. 'Time-space' is a concept which includes not only the distance from 'A' to 'B' but also the time taken to get from 'A' to 'B.'[6]

The standard model of time-space transformation focuses on the shortening of the time taken to cover a given distance (i.e. time-space collapse or convergence). This type may be referred to as linear change: a shortening of the time taken to get to, or communicate between points 'A' and 'B'. This form is most critical in terms of world city formation. It is what brings Singapore, Los Angeles and Tokyo into the same economic space. Linear time-space collapse serves to concentrate power in certain locations. As Pred pointed out, the process of linear connectivity often further engrains existing patterns of control and dominance of certain urban centres (intensive globalization).[7] Such a process is the grist of most models of world city formation.

The second type of time-space transformation one may refer to as areal. It involves an increasing fluidity of the motion of goods, people, money and ideas in any number of directions (i.e. 'A' to 'B' to 'E' to 'D'). One might call this a 'time-space swarm' or 'implosion'. It is reflected in increasing transactional densities and multidirectional movement (made possible by

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[6]/ Of equivalent importance is the cost of getting from A to B, often referred to as the 'friction of distance.' I am conflating these two terms and using time as a stand-in for cost. Though there are important distinctions between cost-space and time-space, they need not be fully addressed here.

[7]/ A. Pred (1980) Urban Growth and City-Systems in the United States, 1840-1860, Cambridge: Harvard University Press.

such things as the region's ubiquitous Daihatsu pick-ups or the introduction of telephony, especially cellular, into rural areas). These trends are, in turn, key to the emergence of mega-urban regions (extensive globalization). The Growth Triangle with its pervasive push into the country-side of Johor and the Riaus exemplifies this second process (as a day on the boats weaving through the islands or in the 'shared taxies' running throughout Johor will attest).

One can envision two historical waves of change in the spatial context of economic activity. In the first phase (beginning around 1880) technological breakthroughs[8] (such as telegrams and steamships) were focused on linear time-space collapse and were targeted at increasing 'control' and the ability to organize far flung activities. This form of change tended to favour larger firms and certain colonial co-ordination hubs, such as Singapore (recall Chapter III). More recently, technical, social and political changes have enhanced 'transactional densities.' This form of change tends to favour the creation of markets and regional complexes.

This growth in transactional potentials is a key to understanding research difficulties. Increasing levels of transactions between firms, individuals and places is what makes the use of bounded constructs increasingly untenable as they are less and less 'isolated.' As the level of integration increases, the manner in which difference is perceived and created moves to the fore. The same may be said for conceptual divisions.

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[8]/ One needs to be wary of overemphasizing the impact of technological change in modes of communications on economic form. This is so for two reasons: 1) technology is a social product, usually brought into commercial existence by demand; and 2) the impact of technologies of communication are uneven (the key result of the interview set with regional managers was the lack of clarity about how they would use new communications systems within the frame of their own strategies). This point is made in many locations but see J. Fox-Przeworski (1991) "Concentration of New Information Technologies" Are There Spatial Policy Concerns?" Cities of the Twenty-First Century. New York: John Wiley and Sons.

3. The Middle Space of Diffuse Categories

This thesis has utilized the middle space between constructs to develop a range of interpretive reformulations for understanding concrete changes on the ground. It has sought to increase the acuity of a number of basic categories by blunting their edges. Although it is not possible to fully avoid the use of categories, the analysis has highlighted the important 'fuzziness' of bounded categorical sets.

It is in the shadow realm of tensions between categories that a good deal of analytical strength may be found. For example, the fuzziness between 'urban' and 'rural' highlights the tendencies toward concentration and diffusion and the process of mega-urban formation. Beyond the global-local and urban-rural divides, the middle spaces of conceptual divides within which this study has unfolded include: integration/differentiation, concentration/diffusion various couplings of factors of production, intangible(informational)/tangible(cargo, people etc.) circulatory streams and post-industrial/industrial economies.

The key duality with which this thesis grapples is that between society and space. I have outlined how deeply spatial are the social, economic and political changes within the region. Space is a difficult arena of analysis. It is outlined by shifting currents of movement and perception. These currents would seem to be even more volatile in the context of globalization. The Growth Triangle is both a reflection and a medium of social change on a global scale. Yet, it is also change of a peculiarly local nature.

The consideration of conceptual frameworks should not remove one's thoughts from the very powerful, rapid and concrete changes occurring on the ground. Where these changes will lead is even more difficult to discern than the exegesis of from whence they came.

C. TRAJECTORIES OF CHANGE

1. Where to from Here?

The Growth Triangle is an emergent complex which straddles the middle space between the global and the local. How and if this space will stabilize is still far from clear. Although I have argued for their interdependencies, the trajectories of the region's elements may still usefully be seen on an individual basis (i.e., how each corner works out its regional and global incorporation).

Singapore's economy is undergoing deep-seeded changes. In other settings such a set of developments has been termed post-industrialization. While I have expressed some discomfort for the disjuncture implied in the concept of the post-industrial turn, there can be little doubt the Singapore's economy and the other ANIEs are now facing new challenges.

Singapore and other Asian Newly Industrialized Economies (ANIEs) have all quickly come upon a set of conundra which mirror those of the post-industrial vision(s) of the 'west,' but with intriguing specificities. The nuances of the POst-industrial NIE (PONIE) case include:

> 1) high levels of public and private capital surpluses (indeed, they may be facing over-accumulation crises[9]).
>
> 2) movement through the 'industrial phase' very rapidly (30 years). The PONIEs now face the difficulty of changing 'local' structures which once made them so globally successful, but which may now be limiting growth.[10]

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[9]/ These crises may be distinguished from the classic model in that they are not really the result of underconsumption as such, but of the difficulties of keeping pace with structural change and finding suitable outlets for (especially state) expenditure.

[10]/ For example, South Korea is grappling with how to dismantle its Chaebol, Taiwan is trying to put brand names to its successful OEM (original equipment manufacturer) sector and Singapore, I argue, is trying to free up entrepreneurialism and innovation after years of paternalistic control.

3) strong central governments which are deeply involved in directing their respective economies[11] (although growing middle classes are calling for more input into decision making).

4) unlike during their industrialization period, more direct competition with the 'core economies' towards the top of the economic feeding chain as they strive to maintain the economic momentum to which they have become accustomed.

As the development of PONIEs is an unprecedented event, there are few sign-posts with which to gauge their likely trajectories. In 'the western experience,' the de-industrialization process has been examined as a drawn out devolution of older industrial areas, as capital fled to the sunbelt, Asia or other new frontiers of production. Often the portrayal of de-industrialization in western countries has emphasized the struggle of local communities ('localities') clinging to industries through deregulation or incentives in the 'place-market' of potential sites from which mobile industry could presumably choose.[12]

In the Singapore case, the government is sponsoring the move off-shore of some of its industrial base (though preferably not too far off-shore). It is attempting a managed de-industrialization. How could Singapore possibly 'design' and support a process which is so decried in other settings?

The government of Singapore would seem to believe that:[13] 1) it has little choice in light of the desperation with which it clings to its ubiquitous global context (and this is increasingly predicated on world city functions, servicing global flows); 2) it may also be possible to externalize many of the less attractive (especially personal service and basic manufacturing) jobs

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[11]/ See especially World Bank (1993) The East Asian Miracle: Economic Growth and Public Policy, Toronto: Oxford University Press.

[12]/ For example, see the work of Sharon Zukin (1991) Landscapes of Power: From Detroit to Disney World, Berkeley: University of California Press.

[13]/ This material is largely based on an interview with Daniel Selveratnam, Chief Planner, Singapore Economic Development Board.

(into the Growth Triangle) and keep the top-end of the service economy in Singapore;[14] and 3) the 'negative' portrayal of post-industrialism is flawed or at least over-stated. In regards to this last point, one needs to note that Singapore had the 'courage' to embrace transnational corporations when they were frequently portrayed as evil incarnate.[15] Much like the state 'rode the tiger' of transnational capital in the 1960s and 1970s, it may now believe it is possible (as well as necessary) to engage the dangers of the post-industrial service transition (again predicated on global links). In any event, within Singapore the development of the service sector (which is a syncretic and fuzzy concept) is generally portrayed in the positive light of its links to the 'new' service/information economy.

Services are increasingly important to the functioning of the world economy, but they are also extremely parasitic and volatile. They produce little that is tangible, and they need a generator of surplus from which to grow. Even in a globalized service economy, grounded resources and bases are still (even more) central. World city formation requires a regional base for which services may be provided and from which surplus may be extracted: the 'New Singapore' needs a base for its globalization. This base need not be the Growth Triangle. The Republic is looking further afield to Vietnam, Burma, China and India for the construction of a support base and vent for its economy. Johor and the Riaus face fewer options.

Johor and the Riaus are experiencing a form and level of spatial transformation with few, if any, precedents. To witness the creative destruction of landscapes and livelihoods, leaves one admittedly a little bewildered as to where it will all lead, what will it all cost? One

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[14]/ One should also recall that the service sector in Singapore generally has higher levels of local equity than manufacturing. The global service push may therefore be seen as: 1) part of a 're-patriation' of the economy; and 2) a political move by the PAP to secure support among 'the new class.'

[15]/ For an example of this view, see R.J. Barnett and R.E. Muller (1974) Global Reach: The Power of Multinational Corporations, New York: Simon and Schuster.

thing seems certain, the developments in the Riaus and Johor (and the momentum on which they are all based) will come to a grinding halt in the absence of support from Singapore.

The agency of the people and leaders of Johor and the Riaus should not be discounted. They too strive to achieve the success of Singapore. There are, however, some crucial differences in their likely trajectories from those of Singapore. First and foremost, when Singapore began its economic ascension, it did not have a Singapore next door.

It needs to be remembered that the current boom in the regional margin is predicated on differences from Singapore. The design of the Growth Triangle ensemble is meant to leave the top-end jobs in the city-state. This outcome is rarely explicitly stated in the vague references to factor endowments and 'high tech' pushes in all three corners. The vagueness of regional roles and the tensions over defining niches is important because it illustrates the reality that the participants see in regards to the impact of the way their role is represented.

The regional division of labour also has unfortunate and potentially stressful echoes with the colonial period (i.e., Chinese dominance of Malays). For all the talk (although the actual topic of race is officially forbidden) of multiculturalism in all three nodes, ethnic tensions are palpable. For 'Chinese' Singapore to convince its neighbours of its altruism (no matter the level of funds expended), is a very tall order. Currently, rapport is based on close personal links among top leaders (e.g., Mahathir, Lee Kuan Yew and Suharto). All three countries are, or soon will be, experiencing the emergence of a new generation of leaders. The shadow of ethnic animosity will be engrained in each of these new leader's policies.

Another challenge facing the new leaders (especially in Indonesia) is presented by a large shadow looming over the region -- China. Indonesia and, to a lesser extent, Malaysia/ Johor are competing with China to attract investments (especially from ANIEs). The

liberalization trend in Indonesia which Batam represents must be seen in this light. Events in China and its enveloping of Hong Kong will greatly shape the prospects for the inhabitants of the region (recall Tomy Toys move to China rather than Batam). Yet the region is not without some agency. Policy decisions within the region will continue to be key.

2. Policy Implications

The Growth Triangle initiative is perhaps the prime example of a more wide-spread trend towards the development of multinational economic zones (such as the maquilladora or Hongkong-Shen Zhen). As such, a number of lessons arising from the Growth Triangle case may well have wider utility in terms of economic development policies.

As the discussion illustrates, the role of the three governments is central to the rapid growth occurring in the Growth Triangle region. The regional governments take on many roles including those of regulator, marketer, investor/developer and service provider. Each set of functions has its contribution to the development of the region.

Regulatory shifts are the basis on which the edifice is built. Fundamental changes in Indonesia's investment regulations specifically for Batam, and Singapore's OHQ push provided a framework for success. Regulatory changes would, however, not seem to be enough to guarantee success. Batam's regulatory status was founded in the early 1980s (i.e. long before the boom) and Singapore's OHQ regulations would have little impact if there were not business volumes to support a headquarters operation. Further, as over half of the managers I interviewed mentioned, the palate of regulatory offerings (e.g., tax incentives etc.) available to transnational investors is increasingly attractive in many sites throughout the developing world.

What potentially separates the Growth Triangle region from its competitors is that it presents a mix of regulatory frameworks (such as tax regimes, labour laws etc.) in a small

space. Further, the regulatory shifts appear to be part of a wide ranging and forward looking 'plan' for growth. This 'plan' (i.e., the Growth Triangle initiative) is widely and consistently marketed by the three nations involved. The marketing of investment spaces would seem to be a key policy for successful economic development in a globalizing world economy where choices for investors are increasing. Fundamental to the success of the 'marketing pitch' is the neo-classical ideal of comparative advantage. It provides an ineluctable theme within which the region may be packaged. Yet packaging in and of itself is not enough of a policy initiative to assure business involvement. The credibility of the development zone is also predicated on the large scale investment of government funds towards future growth.

Government investment has been the catalyst for Growth in all three nodes (e.g. the Singapore government's S$ 500 million into Batam-Indo or Johor state's investments in Pasir Gudang). Investments by the governments of all three of the nodes have been designed to improve returns to private sector investors not to present competition to private businesses. State direct investment in enterprises is usually by way of joint ventures rather than as solely-owed firms. In this way the government draws in private sector support (as a true partner), but also allows the market more play in deciding which industries or products should be developed (i.e., the market rational facing firms acts to provide some discipline for their joint venture public partners). Thus, the current economic successes surrounding the development of the Growth Triangle point to the importance of state-sponsored growth rather than state-led growth. The governments provide the setting and climate but not the direction.

Key to the provision of a successful economic climate is government investment in infrastructure. In terms of infrastructure expenditures one could well say that growth is government led. In particular, government initiated circulatory and land development schemes

are key. Government investment is particularly important in providing for the fabric of economic activity through infrastructure schemes. State policy in terms of infrastructure development (e.g. industrial estates and roadworks) has been largely pro-active, that is, it is designed to meet future demand. The policy framework would seem to be: 'build it and they will come.'

To date, the policies of investing ahead of the market seem to be paying dividends. However, three caveats must be made. First, the ability to invest in infrastructure is premised on current capital surpluses (especially in Singapore). Second, the investment in 'hard infrastructure' is running ahead of 'soft infrastructure' (such as education, health care, etc.). Soft infrastructure's shortfalls are a primary drag on the region's development. Third, the success of the pro-active investment process is predicated on the maintenance of the region's momentum. Growth must occur to provide returns on state funds. Perturbations in growth paths might well have exaggerated impacts given the high level of government exposure (both in terms of financial resources and legitimacy). The reliance on growth to solve ills is magnified by a lack of integrated planning among the region's three partners.

The policies of the three constituencies have been only loosely integrated (though this is much less true of the relationship of Singapore and the Riaus than of Singapore/Johor and the Riaus/Johor). Conventional wisdom would have it that there must be a much more integrated/centralized approach to planning. Such a regional master plan would have a number of drawbacks. First, the planning apparatuses would cut back on regional flexibility (and competition among its elements). Second, it would need to formalize the roles of the three areas. As argued above, the vagueness of the current roles is a reason for the project's success.

It may well be that the best roles for governments in terms of the economic development

of such regions is to lead the market in service provision but to follow it in terms of specific sectoral incubations and forms of integration. This policy, it must be remembered, is useful if short to medium term economic growth is the primary objective. However, if other values predominate than other policies will be required. When one considers the longer term costs (e.g., environmental externalities) of letting the market have free reign and the social implications of the changes at hand, the picture of growth looks less attractive.

It is, however, not necessarily the case that one either 'joins the economic boom' and embraces globalization or struggles to develop a high quality of life through autarchy. Rather, globalization if engaged thoughtfully and proactively (as in Singapore) can be taken up, at least partially, on the location's own terms. This is because globalization is not some supra-organic force but a local process. The mediation between local social and environmental needs (recall the quotations from Castells and LeFebvre in Chapter II) and 'the global economy' is still fundamentally the role of the state. It therefore requires conscious and directed policy formulation and initiation.

This said, through it all, the best laid plans for regional development will be for not if unit business costs move too high. The one mitigating factor weighing against the straightforward calculus of business costs is the cache of the region: geography. Both the density of economic activity in Singapore and the city-state's excellent global connectivity provide reasons for retaining production in the region even if costs escalate. Thus, the continued development of business amenities in Singapore and of its circulatory prowess would seem to present the wisest policy options for the city-state and by extension the Growth Triangle region. The region must continue to assert itself at a global scale.

The region's success is based on attracting global investment (it does not have enough

of a regional natural or human resource base to provide economics of scale). The attraction of global flows allows the region to grow beyond its intrinsic internal capacities. However, it is risky policy as it increases exposure to exogenous variables. In response to the fluidity of global economic currents, governments must also try to support the growth of strong indigenous firms to enhance the solidity of the economic base. As noted in the preceding discussions, the Growth Triangle is part of this strategy. To succeed patience will be needed.

For the moment major policy changes are not a foot. Yet, the project as a whole is just getting off the ground, and in 1992, the reality was still far from the model. For example, the borders transecting the region do limit interaction. Cargo movements and the commutes of managers have been painfully slow (for example, the 'real time' from Singapore to Batam is rather more like 2.5 hours in full transit time). In an example of barriers between Singapore and Malaysia, a courier company I interviewed would send material to Johor Bahru via Kuala Lumpur rather than simply across the causeway (to avoid traffic jams and customs delays).

Examples of roadblocks or detours to regionalization can be easily found. Yet, for all the 'potential' limitations within the region, there is also a fairly pervasive feeling of 'potential' successes. As it is, despite the tremendous changes in the region, it must be said that it is the ongoing and deepening sense of potential which is still the region's greatest *cache* - what it might become. In many ways, the region and its eventual profile are still but emergent shadows beneath the winds of global commerce and it is not likely yet time to close the book on the open region.

D. SUMMING-UP

I have written a regional geography without relying on standard and closed categorizations. It is premised on an examination of the shifting tensions between local and

global dynamics. This tension is outlined by the relationship between integration in the guise of increased circulation of goods, people, capital and information and the production (and differentiation) of local spaces: the geography of islands in the stream cum shadows beneath the wind.

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APPENDIX 1

METHODOLOGICAL APPROACH

A. FURTHER DISCUSSION OF APPROACH

In the introductory chapters, the difficulties found in researching the meso-scale of the Growth Triangle were outlined. In order to capture the holism of regional transformation and to avoid the potential limitations of focusing on one location or industry, a broad-based approach was adopted (perhaps not a wise choice for the lone researcher). This approach began with secondary sources and these were in turn compared with rather more directly empirical investigations on an ongoing basis.

The broad-based approach to investigating the fullness of spatial change at the meso-scale meant using an extremely wide array of government and private secondary data sources. It was also necessary to piece together the story through an extensive use of media sources (where material unavailable elsewhere could often be found). In combination, these twin sets of secondary data were compared with one another to gauge veracity and to discern key trends.

The breadth of the topic at hand made the initial use of secondary data imperative to identify themes. The main foci which emerged within the secondary material were data on structural, employment and land-use changes and changes in circulatory patterns (the key lacuna was the unavailability of census data). The usefulness of this information lay in its quantification and ability to evoke something of the scale of change occurring across the region in a concise manner.

However, given the frequent incompleteness (lack of currency, context or definition of sources), fragmentation (by country and/or sector) and boosterism which characterizes

many information sets on the Growth Triangle it was necessary to carry out as much primary research as possible to gauge the utility of published reports and data series.

Primary data collection involved extensive field observations and interviews. Field observations were especially crucial for mapping out patterns of change in Johor and the Riaus and for verifying published reports about new developments.

Observations and interviews were difficult in Indonesia and Malaysia due to the lack of research visas which were, in the end, never forthcoming. The withholding of research visas highlights the wider difficulty of the sensitivity many officials, citizens and investors feel about discussing the development of the Growth Triangle. The Growth Triangle is a sensitive topic throughout the region. However, it was also important to gather a wider range of insights into regional change than one could garner from published sources or through observations.

In sum, about 100 interviews were carried out. This was logistically challenging because of the geographic and sectoral range of the respondents (e.g., through the three countries (often in dispersed townships) and in industries ranging from semi-conductors to couriers to land developers). Although an interview format was planned in advance, no standardized instrument was employed. This approach evolved because of the range of interviewees and the desire to allow respondents as much latitude as possible. The framework for a standard corporate interview is attached at the end of this appendix.

There was never any plan to quantify the results of the interview set. It would not have been possible to take a sufficient sample in a sufficient number of places to capture the formation of the region *in toto*. Although there was an attraction to spending concentrated time in a village or a specific industry, from there I would not have succeeded

in finding the wider nature of regional transformation and the picture of the region as a whole would have been incomplete.

The selection of interviewees was not haphazard. A selected but expansive range of people and locations were identified to gain varying perspectives on what was going on. Yet the interview set was also weighted towards certain groups. Some agents have more impact than others on the region's formation and wider knowledge of events and trends. Given limited resources, it was necessary to target them. These were firms and government officials.

While it may well be said that more was learned from the interviews than in any other aspect of the research, this material was difficult to use as a data base or for argumentation. The key difficulties in using this type of 'dispersed qualitative interview set' involved generalizations and contextualization. There was a good deal of duplication of responses but the sampling made statistical generalizations difficult. Further, the material generated from interviews was often anecdotal nature and could not be used as proof of any given point.

Confidentiality often needed to be assured (and was guaranteed to all non-corporate respondents). This made the use of interview material all the more difficult given the qualitative nature of the interview protocols. Individuals could not be hidden in statistical generalizations, nor named in the text. Further the need to try and contextualize each comment would have both exposed the respondent's identity and greatly lengthened the thesis.

In terms of future research, I would suggest a larger and more systematic, but equally widespread interview set. A key issue facing the analysis of mega-urbanization is

how to capture the process of change which often occurs at a pace outstripping data availability. Surely local respondents must be tapped in any effort to understand change in their surroundings.. For this reason a broadly targeted, large scale research project would be in order. A group of researchers working as a team could engage the expansiveness of the topic at hand. This research could still usefully focus on circulatory and transactional change.

To reiterate, the methodological challenges arising from the examination of spatial production at that meso-scale are tremendous and likely beyond the scope of any one individual to fully canvass the scope of respondents (and to then deal with the patterns and nuances of their differing perspectives). However, the integration of secondary data materials with support form primary observations and interviews proved to be the most effective method at grasping the process of regional change.

B. OVERVIEW OF FIELD WORK SCHEDULE

Period		Activity
May-July 1991		-Preliminary reconnaissance -Four weeks at AIT, Bangkok -Initial contacts at NUS, Dept. of Geography and ISEAS -Used local resource bases for research on the Growth Triangle and to identify key data sources -Initiated newspaper research, NUS -Visited Batam and Bintan -Visited Johor Bahru, Pasir Gudang and Tampoi -Carried out interviews in machine tools sector in Kalang Basin, Singapore -Interviewed key local researchers examining the Growth Triangle -Presented Initial Findings at AIT
June-Dec 1992		-Based at NUS, Department of Geography and ISEAS
	June	-Established research agenda, program -Explored Johor and the Riaus -Generated questionnaire protocol in conference with local researchers
	July	-Newspaper backgrounding -Developed historical section based on local resources
	Aug	-Riaus - Interviews at BIDA, Batam-Indo, Nagoya and Tanjung Pinang -Johor Border Crossing and JSEDC
	Sept	-Informal interviews in Cemerang and Kampong Putih, Senai and Johor Bahru -Selected firms, made initial contacts -Initiated corporate interview requests
	Oct/Nov	-Corporate interviews in Singapore -Interviews with representatives of Singapore Government Departments -Final data acquisition -Presenting Findings at NUS
	Dec	-Final Wrap-up.

C. INTERVIEW LISTINGS

Locales

1) Riaus
   -Tanjung Pinang (Bintan)
   -Nagoya (Batam)
   -Batam-Indo Industrial Estate

2) Johor
   -Johor Border Crossing
   -Johor Bahru
   -Cemerang Township
   -Kampong Putih
   -Kukup
   -Senai

3) Singapore
   - Kalang Basin

Firms

There was about a 40% success rate in gaining interviews after initial contact. Firms willing to be named are listed below, 16 firms preferred anonymity.

-ATT Asia (Managing Director)
-Apple Computers Asia (Site Manager, Singapore)
-Batam-Indo Industrial Estate (Marketing Manager)
-Chartered Electronics (General Manager)
-City-Link Couriers (Sales Manager)
-Columbia Offset Printing (Group Finance Manager)
-DBS Land (Manager for Business Development and Planning)
-DHL (Regional Sales Manager)
-Epson (Personnel Manager)
-Giken Sakata (General Administration Manager)
-Harris Semiconductor (Managing Director)
-Hitachi Electronics (Administration Manager)
-Kyocera (Anon)
-Matsushita Electronics (Production Manager)
-Maxtar Hard Drives (Human Resources Director)
-NEC Electronics (Director of Planning)
-Singapore Telecoms (Various)
-Singland (Anon)
-Sony (Managing Director)
-Sumitomo Electric International (Finance Manager)
-Dow Jones, Telerate (Regional Marketing Manager)
-Telemecanique (Anon)
-Thompson Electronics (Personnel Manager)

-Tokyo Electronic Corp. (President)
-Tomy Toys (Managing Director)
-Toshiba Electronics Asia (Managing Director)
-Union Carbide (Operations Manager)
-UIC (Public Relations)

Government Offices

-Riaus, BIDA
-Johor Customs
-Singapore, PSA (x2)
-Johor, JSEDC (x2)
-Singapore, EDB (x3)
-Singapore, URA (x2)

Others

-Singapore Chinese Chamber of Commerce

D. SAMPLE OF CORPORATE INTERVIEW FORMAT

Interviews usually took about 3/4 to 1 hour depending on discursiveness of respondent.

A. Background of Firm
   1. Firm Size
   2. Ownership Structure
   3. Current Strategic Plans

B. Locational Considerations
   1. For specific type of firm/industry (what are key variables)
   2. Rating Singapore (and what are trends in Singapore's attractiveness)
   (3. If not forthcoming in 1 or 2 - address land, labour and capital in turn)
   4. Are these changing?

C. Intra-firm Operations, Firm Structure/Communications
   1. How is the firm structured? (e.g. matrix, regional etc)
   2. What are key communication channels (and directions of flows)
   3. Technological changes affecting structure (information technologies)
   4. International Linkages (structure and flows)
   5. Regional Linkages (relations with sub-divisions in region and in Growth Triangle)

D. Linkages to other firms
   1. Types of suppliers/markets (what is externalized and why?)
   2. Locations of suppliers/markets
   3. Forms and trends in linkages

E. Regional Operations
   1. What is 'The Region'
   2. Growth Triangle? Why or Why Not?
   3. Have you been asked to participate?
   4. What is the key attraction?
   5. What is the key difficulty?
   6. What distinguishes Johor and Batam
   7. Where are the Growth Triangle's main competitors

F. Singapore as world city
   1. How important is regional economy to your Singapore operations
      - to Singapore's success more generally
   2. What attractions does Singapore have as a headquarters site?
      - How important is infrastructure (trans and comm)
   3. What drawbacks
   4. Will Singapore headquarter functions grow? (or move? - to where?)
   5. Is Singapore 'Information Rich?

G. Anything to add regarding your firm's evolution or Singapore's future.

- Interviews with government offices were specifically focus on each body.

- Interviews in locations were also very site specific and especially open-ended.
   - key themes were changes in population types, land use, employment, communications and identifying key agents of change.