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SUBREGIONAL GROWTH ZONES IN GREATER CHINA AND ASEAN: an analysis of trade, investment, and industrial relocation.

by

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A thesis submitted to the Department of Political

Studies in conformity with the requirements for

the degree of Doctor of Philosophy

Queen's University

Kingston, Ontario, Canada

1997

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ABSTRACT

The emergence of subregional growth zones, also known as growth triangles, in Asia Pacific, involving the relocation of labour intensive industries from Hong Kong and Singapore, reflects changing comparative advantage conditions, the rise of transnational production networks amongst participants, and key political decisions encouraging the relocation of selected manufacturing from the metropolitan cores to their neighbouring hinterlands. Subregional growth zones are geographically contiguous areas separated by political boundaries but possessing different factor endowments due to varying stages of development.

The empirical evidence shows increased FDI, exports, imports, and reexports between growth zone participants *during the period under study*. Production profiles in participating economies changed *during* 1985-1997. Initial investments from core hubs into their hinterlands were for *production relocation*, then later for *product and market integration*. There is also mixed evidence regarding whether MNC subsidiaries located in both zones are part of buyer or producer driven global commodity chains in transnational credit, knowledge and production structures. *Political decisions* were **crucial** to the establishment of these subregional economic zones. Without the *requisite political cooperation* to support cross border trade and investment, closer economic ties between participants would **not** have taken place.

Growth zone development embodies aspects of the neoclassical, keynesian demand stimulus, *and* mercantilist policy options, more so than the protectionist option. MNC production, relocation, and investment decisions reflect their relational and indirect structural powers over governments. Their choice of production and investment locations reveal, implicitly, their preferred types of host investment regimes.

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AFTA- ASEAN Free Trade Area

AMD- Advanced Micro Devices

APEC- Asia Pacific Economic Cooperation

ASEAN- Association of South-East Asian Nations

ASIC- Application Specific Integrated Circuit

BGCC- Buyer driven Global Commodity Chain

BIDA- Batam Industrial Development Authority

CAD- Computer Aided Design

CAM- Computer Aided Manufacturing

CCP- Chinese Communist Party

CITIC- China International Trade and Investment Corporation

CPF- Central Provident Fund

CPU- Central Processing Unit

CRT- Cathode Ray Tube

DFI- Direct Foreign Investment

DRAM- Dynamic Random Access Memory

EDB- Export Development Board

EOI- Export Oriented Industrialization

EPZ- Export Processing Zone

FDI- Foreign Direct Investment

FTA- Free Trade Area

GATT- General Agreement on Tariffs and Trade

GCC- Global Commodity Chain

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GDP- Gross Domestic Product

GLC- Government-Linked Company

GSP- Generalized System of Preferences

GT- Growth Triangle

HDB- Housing Development Board

HK- Hong Kong

IC- Integrated Circuit

IMP- Industrial Master Plan

IPE- International Political Economy

IR- International Relations

ISI- Import Substitution Industrialization

ISO- International Standards Organization

JSEDC- Johor State Economic Development Corporation

JSR- Johor-Singapore-Riau

KMT- Kuomintang, the Nationalist Party on Taiwan

LCD- Liquid Crystal Display

MFA- Multi-Fibre Arrangement

MFN- Most Favoured Nation

MNC- Multi-National Corporation

MNE- Multi-National Enterprise

MOU- Memorandum of Understanding

MRT- Mass Rapid Transit

NAFTA- North American Free Trade Agreement

NET- Natural Economic Territory

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NIC- Newly Industrializing Country

NIE- Newly Industrializing Economy

NTB- Non-Tariff Barrier

NTUC- National Trade Union Congress

ODA- Overseas Development Assistance

OEM- Original Equipment Manufacturer

OMA- Orderly Marketing Arrangement

PAP- People's Action Party

PGCC- Producer driven Global Commodity Chain

PRC- People's Republic of China

PRD- Pearl River Delta

R&D- Research and Development

ROC- Republic of China

S&T- Science and Technology

SEZ- Special Economic Zone

SDF- Skills Development Fund

SIJORI- Singapore-Johor-Riau

SITC- Standard Industrial Trade Classification

SME- Small and Medium Enterprise

SREZ- Sub-Regional Economic Zone

TNC- Trans-National Corporation

TVE- Township and Village Enterprise

UMNO- United Malay National Organization

UN- United Nations

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VCR- Video Cassette Recorder

VER- Voluntary Export Restraint

WTO- World Trade Organization

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Chapter One: Introduction

The emergence of subregional growth zones is an example of cooperation in managing economic interdependence. This dissertation will analyse the origins of two subregional growth zones in East Asia. Growth zones are contiguous geographic areas of neighbouring economies where trade, investment, and industrial relocation flows are driven by economic complementarities *and supportive political decisions by participating governments.* With the end of the Cold War, many states are preoccupied with creating wealth within their territories. The declining importance of military conflict for a significant number of countries means that fostering economic growth is more important than ever. Increased foreign investment and trade flows into these growth zones are significant because they can diminish national governments' ability to influence domestic economic policy. The economic flexibility of Hong Kong and Singapore, based on coherent, strong, insulated ruling authorities capable of adapting to both short and long-term pressures, is an important influence on their decision to participate in the creation of these growth zones. But the capacity to create new economic opportunities and comparative advantages for other zone participants may be less obvious.[1]

This dissertation focuses primarily on Hong Kong and Singapore as the core states in each growth zone, although China, Taiwan, Macau, Malaysia, and Indonesia also play a role in growth zone emergence. Other countries, like Japan and the US, have a role in relevant trade and foreign investment flows. Second, the study's underlying assumption posits that the two cases, and the events to which they react (for example, the return of Hong Kong to China in July 1997), are sufficiently alike to warrant fruitful comparison. The findings here may be compared with other (potential) growth zones in Northeast Asia

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Carlos Alberto Primo Braga and Geoffrey Bannister, "East Asian investment and trade: prospects for growing regionalisation in the 1990s," *Transnational Corporations*, 3/1 (February 1994), 111-26; Ha-Joon Chang, "Explaining Flexible Rigidities in East Asia," 200-207 and David Seddon, "The Political Determinants of Economic Flexibility," 325-6, 340-4, and 351 in Tony Killick, ed., *The Flexible Economy*, (London: Routledge, 1995).

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and Southeast Asia. These areas have been termed growth triangles (GTs), circles, subregional economic zones, and natural economic territories (NETs). This dissertation will use the common term of "zone" rather than "triangle" because research results indicate that the latter term is not particularly accurate. After the first three introductory chapters, chapters four to eight will show how subregional growth zones emerged and the factors driving their development. Chapter nine will review the research findings and their significance for the study of international relations.[2]

Growth zones reflect changes in participating economies' domestic production profiles. These profiles change as external events in the world economy increase domestic production costs, forcing economies to restructure through offshore relocation and investment. Neo-liberal institutionalism, statist development theory, and realist theory do not offer sufficiently compelling explanations for this phenomenon's emergence. State-based analyses do not adequately focus the changing nature of economic competition, national security, and international division of labour. Interdependence in economic relations has a political foundation because stable economic ties cannot exist in a conflict-rife environment. Cooperation, formal and informal, between, and within countries is essential for the emergence and development of growth triangles.

The IPE Context: growth zones in recent scholarly debates

The realist strand of international relations theory focuses on state survival, power, security, and relative regional-global position. Realists see states facing common pressures in an anarchic international system with foreign policy consisting of rational, domestically intermediated responses to external exigencies. They view dependence, especially on

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See Myo Thant et. al, eds., *Growth Triangles in Asia*, (Hong Kong: Oxford University Press for the Asian Development Bank, 1994); Mark Turner, "Subregional economic zones, politics, and development: the Philippine involvement in the East Asian ASEAN Growth Area (EAGA)," *Pacific Review*, 8/4 (1995): 637-47; Amitav Acharya, "Transnational Production and Security: Southeast Asia's Growth Triangles," *Contemporary Southeast Asia*, 17/2 (September 1995), 174; Amos Jordan and Jane Khanna, "Economic Interdependence and Challenges to the Nation-State: the Emergence of Natural Economic Territories in Asia Pacific," *Journal of International Affairs*, 48/2 (Winter 1995): 433-462; and Chia Siow Yue, *Motivating Forces in Subregional Economic Zones*, paper presented at the December 1993 Pacific Forum conference on Economic Interdependence and Challenges to the Nation State in Honolulu, 5, 7-9.

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imports, as inimical to security and would go to war to secure needed resources.[3] States are considered the main unit of analysis and international constraints influence state behaviour. Each state, as a unitary actor, determines the political and economic system appropriate to enhancing national values, however the latter are defined over time. International pressures often override domestic interests, internal political struggles, and the characteristics of particular states in foreign policy decision-making. Given the anarchical international system where states must ensure their own security, territorial integrity and political independence in the international environment will be paramount.[4]

Realists see a state's behaviour as a response to the distribution of capabilities and the balance of threat. States will respond rationally to these preconditions, will choose that foreign policy that maximizes security (defined as the absence of acute threats to the basic values of a nation state), minimizes risks, and presumes that elites are domestically unconstrained. The economic component of security refers to the absence of threat or deprivation to economic welfare. In contrast, unit or domestic level theories expect that state attributes and societal conflicts will affect foreign policy choices as foreign policy will not always reflect national security interests or systemic imperatives. Monocausal "society-centred" or "state-centred" theories do not explain domestic political processes adequately. The former sees state behaviour as the function of domestic group pressure and downplays how state actors and institutions can have their own interests and affect how domestic groups influence policy outcomes. The latter views foreign policy as the output of the administrative apparatus, overlooking how state policy requires the

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Robert Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy*, (Princeton: Princeton University Press, 1984), 10-12 and 51-54; James Morrow, *When Do Relative Gains Impede Trade?*, unpublished manuscript, 4-32.

4

Robert Jervis, "Cooperation under the Security Dilemma," *World Politics*, 30 (1978): 167-214; Robert Putnam, "Diplomacy and Domestic Politics: The Logic of Two Level Games," *International Organization*, 42 (1988), 427-60.

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cooperation of strong societal actors.[5]

Interdependence and cooperation are important concepts in the liberal-institutionalist school of international relations theory. Interdependence refers to situations characterized by reciprocal effects among-between actors in different countries, particularly when a number of states have multiple channels of contact, there is no issue hierarchy, and military force is not used against one another. Interdependence does not automatically lead to cooperation, much less have benign consequences, but state efforts to manage it reflect concerns about asymmetric costs and benefits.[6] Cooperation is defined as mutual adjustment arising from common interests outweighing conflicting ones. It is often seen as a means to an end rather than an end in itself. Some cooperation is necessary but not sufficient, under interdependence, to achieve optimal welfare. Cooperation requires that actors' actions, which are not in preexisting harmony, be brought into conformity with one another through negotiation or policy coordination. Cooperation is political because behaviour is altered; it does not mean an absence of conflict, but is a reaction to (potential) conflict. Still, discord can prevail despite the presence of common interests because uncertainty and informational asymmetries must be overcome. Cooperation is unnecessary where actors' policies, pursued in self-interest, automatically facilitate the attainment of others' goals. Such harmony is apolitical as no communication is necessary and influence is not exercised. Liberals argue that economic interdependence and gains from trade lower the likelihood of war by increasing the value of trade over the

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Eric Marshall Green, *Economic Security and High Technology in an Age of Transition: the case of the semiconductor industry*, (Westport: Praeger Press, 1996), 11, 19 and 22; Elman, "Foreign Policies of Small States," 172. When policy outcomes are seen as a function of organization structure, or the relative strength of society vs state, the role of political bargaining is not highlighted. Domestic structure sets the limits within which choices are made but does not explain the specific policy because factors internal to political institutions affect the flow of history. Institutional arrangements affect the struggles between societal and governmental actors by providing arenas in which social forces contend, setting rules, and providing resources. They constrain and empower policy makers by delineating specific agendas, goals, sets of policy instruments, enhance legitimacy, and mediate state and societal actors' interests after initial conditions for their formation are gone.

6

Keohane and Nye, *Power and Interdependence*, 247, 249 and Susan Strange, "The Defective State," *Daedalus*, 124/2 (Spring 1995), 55, 58-59, 60 and 63; Keohane, *After Hegemony*, op. cit.

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alternative of aggression. A dependent state avoids war, as trading provides the benefits of close ties without the costs and risks of war.[7]

International relations scholars have traditionally addressed the foreign policies of major states. But explaining small states' foreign policies requires attention to both structural-systemic and domestic level explanations. In this dissertation, the smaller states of interest include Singapore, Hong Kong, Taiwan, and Malaysia. Small states are assumed to lack the self-sufficiency to defend themselves and have more to fear and lose, so that structural incentives and constraints exert a strong influence on foreign policy decision-making. Domestic determinants were once considered less salient when studying small state behaviour because external constraints are more severe and the international situation is more compelling. Changes in small state foreign policies reflect adaptation to the exigencies of the international system, according to neorealists, while domestic politics should play a larger role in great power foreign policy. This dissertation will attempt to explain how and why growth zones are one manifestation of domestic responses to international influences.[8]

Restructuring the regional division of labour

The cross-border flows in the Hong Kong and Singapore triangles can only occur if there is (implicit) cooperation by states to provide the institutional framework for markets to flourish. As competition between states changes, authority of society and

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Ethan Kapstein, "Is Realism Dead? The Domestic Sources of International Politics," *International Organization*, 49/4 (Autumn 1995), 754. Theoretically, it is possible to have one sided cooperation when one actor acquiesces to the demands of another actor.

8

But the focus on state sovereignty as "control" is incomplete. State control over anything was never secure. Sovereignty is about state authority over a given territorial space and whether the state's ability to make authoritative decisions has eroded or shifted to other actors. Sovereignty depends upon recognition, by internal and external actors, that the state has exclusive authority to intervene coercively within its territory. The key criteria are recognition, the state, authority, coercion, and territory. A decline in sovereignty would require some combination of: a change in the authority empowered to recognize authority,; diffusion of meta-political authority to alternative institutions or non-state actors; the state's loss of coercive monopoly; and deterritorialization of state authority claims. Thomson also points out that states built up power vis-a-vis other states and society. She believes states cannot fulfill functions they never had. It is important to explain how sovereignty and interdependence affect each other. "For liberal interdependence theorists, sovereignty is defined in terms of the state's ability to control actors and activities within and across state borders. For realists, the essence of sovereignty is the state's ability to make authoritative decisions." Janice Thomson, "State Sovereignty in International Relations: Bridging the Gap Between Theory and Empirical Research," *International Studies Quarterly*, 39/2 (June 1995), 213, 216 and 219-229.

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economy is becoming asymmetrically diffused. Hong Kong and Singapore authorities' actions, in their sub-regional growth zones, may be viewed by a realist as an effort to manage the erosion of sovereignty and complex interdependence arising from more globalized production. The growth in regional production and investment also reflects scientific and technological advances in communications and transportation. The participating governments in each zone, then, tried to manage change or uncertainty, maximize benefits from international exchange, maintain policy autonomy, and occupy a desired niche in the East Asian production hierarchy.[9]

Responsibility for economic transformation is increasingly central to the state's role in the global division of labour. One phenomenon of the twentieth century is the state's larger role as an institution and social actor. The contradiction between the necessity of the state in contemporary social life and the imperfection with which states perform is a source of frustration. The extent to which Hong Kong and Singapore are involved in the processes of economic transformation and capital accumulation illuminates their respective policy responses to external economic shocks. Facilitating the creation of new productive capacities requires a more complex involvement in citizens' affairs than eliciting loyalty and enforcing good behaviour. Once the state is implicated in the process of capital accumulation, responsibility for economic hardship is less easily shifted to nature or markets as welfare and growth become entangled. Fostering growth may be a substitute for addressing distributional issues.[10]

Growth zone development is part of a changing regional and global division of

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In contrast, the European Union is an example of formal integration where formal structures influenced informal flows and altered expectations. Wallace defined integration as the creation and maintenance of intense, diversified interaction patterns among previously autonomous units. William Wallace, "Introduction: the dynamics of European Integration," in ibid., ed., *The Dynamics of European Integration*, (London: Pinter for the RIIA, 1990), 9.

10

Peter Evans, *Embedded Autonomy: States and Industrial Transformation*, (Princeton: Princeton University Press, 1995), 4 and 6; Cheng Tian Kuo, *Global Competitiveness and Industrial Growth in Taiwan and the Philippines*, (Pittsburgh: University of Pittsburgh Press, 1995), 5-18 for a review of liberal, dependency and developmental state arguments regarding economic growth.

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labour where industrial restructuring in growth zone participants' economies is driven by political, technological and economic factors. Restructuring refers to changes in the way goods and services are developed, designed, produced, and distributed. The changing nature of production in developed economies, with the rise of lean production in flexible specialization networks or industrial complexes moving away from Fordist or Taylorist mass production, has implications for companies operating in growth triangles. Building upon economies of scope, labour is seen more as a competitive resource where workers have multiple tasks at the firm level. A core firm can have independent, interdependent, and dependent suppliers, distributors, financiers, and workers. It can also choose to cooperate, compete, and control suppliers, workers, financiers, and dealers.[11]

Explanations of the postwar economic development of East Asian countries must consider their abilities to adjust to changing economic circumstances. Given the divergent nature of competition and competitive advantage amongst industries, it is important to understand why a country is a desirable base for industry. Factor conditions, demand conditions, related supporting industries, firm strategy, culture and rivalry are attributes that shape national advantage and are affected by state actions and negligence. These determinants shape the context in which firms compete, resource and skill availability, the information that affects opportunities, the pressure to innovate, and the goals of workers and managers. Factor endowments include human, knowledge, capital, physical resources, and physical infrastructure. Where these attributes flourish, competitive advantage is gained for related industries. The state, in both Hong Kong and Singapore, can facilitate international specialization, help leading sectors emerge and ease lagging sectors'

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An industrial complex consists of a core firm, its suppliers, dealers, distributors (who may be fully, partly, or non-owned by the core company), workers, financiers (banks, pension funds, another parent company), along with the home and host governments. Fordism is seen as mass production based on price competition, labour is seen as a variable cost, task specialization at the firm level and economies of scale while post-Fordism focuses on flexible specialized production based on innovative, flexible labour in a group of small firms.

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transition.[12]

Neo-classical economics' theory of comparative advantage assumes diseconomies of scale and posits that all would be better off it each concentrated on what it does best, based on factor endowments. Constructing greater comparative advantage, through growth zones, requires an understanding of social and political institutions because a simple assessment of relative resource endowments will not indicate which states have comparative advantages in services and manufactures. Zone actors' actions reflect state and firm concerns about their relative and absolute positions in the regional or global hierarchy and shows whether small states can change their position in the division of labour. The international division of labour can be a hierarchy, a basis for enhanced welfare, an opportunity for agency, and a policy constraint. Agency can alter comparative advantage so that not all economic hierarchies are structurally determined. A country's position in the global division of labour is a cause of development, not only a result, and filling certain niches has both dynamic and static consequences. Relative domestic scarcities of capital and labour are products of development, not inherent features of a given territory.[13]

The Japanese colonial period exerted a significant influence in NIC industrialization and regional production but the product cycle explanation for East Asian industrialization does not capture the regionalisation of industrial production. The development patterns of East Asian NIEs shows that industrialization does not follow a unilinear path because changing political and economic circumstances preclude homogeneous industrial structures.Globalized production networks are arrangements that

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Michael Porter, *The Competitive Advantage of Nations*, (New York: Free Press, 1990), 71, 75-78, 566, and 618-680, makes the distinction between basic, advanced, generalized, and specialized factors.

13

Evans, 7-8. He argues development is not just a local trajectory of transformation but also a relation between local production and changing global sectors.

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link various production units in different countries in the provision of components, materials, and management for the assembly of a product. The tension between global production networks and the territorial state system arises from rapid industrial change fragmenting product markets, decentralizing manufacturing activity, and shifting production from the firm to the network level. Asia Pacific manufacturing is characterized by changing hierarchical networks of production linked to Japanese technology inputs and Western export markets.[14]

Product cycle assumptions about the maturation of industrial products and technology do not hold across all sectors in Asia Pacific. Product and process standardization does not preclude continued innovation. Microelectronic technology has sped up the innovation process, in terms of improved performance and attributes, and reduced the importance of scale economies for flexible production runs of non-standardized products. This has allowed some NIE SMEs to enter production agreements with TNCs. Export production in NIEs does not always have import-substitution origins and firms from the originating country do not always exit markets, leaving domestic demand to be met by imports from countries to which production has migrated. But technological complexity entails higher start-up and R&D costs, steeper learning curves, the decreased efficacy of reverse engineering, and resultant firm or government reluctance to transfer technology. Instead of the product cycle emphasis on industrial replication and homogenization, East Asian development has varied in technological diffusion but the NIEs are linked around a Japanese supply architecture of components and machinery. There have not been significant reverse imports to Japan, as the product cycle predicts, as

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Mitchell Bernard and John Ravenhill, "Beyond Product Cycles and Flying Geese: Regionalisation, Hierarchy, and the Industrialization of East Asia," *World Politics*, 47/3 (January 1995), 171-73, 179, and 206; Eric Harwit, "Japanese Investment in China: strategies in the electronics and automobile sectors," *Asian Survey* 36/10 (October 1996), 978-88, 992-93.

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Japanese technology and components are used in exports for US and European markets.[15]

According to the Flying Geese or inverted-V model of economic development, Japan and the US transfer capital investment and technology to the NIEs as part of a transnational production network or hierarchy. Below Japan and the US are the NIEs, the ASEAN states, China and other planned economies. NIE competition in various manufacturing sectors and the aforementioned cost and currency factors encouraged the shift of Japanese production and investment to overseas sites. As part of this economic trend, Japan, Taiwan and Hong Kong moved some of their manufacturing facilities to lower cost locations and shifted towards skill and capital-intensive manufacturing and services. Relocation occurred because of currency appreciation, foreign investment incentives, higher land-labour costs, the 1989 expiration of Generalized System of Preferences (GSP), and export market protectionism. NIE exports also helped lower Japan's trade surplus and ameliorate further protectionism. These same factors have pushed Korean and Taiwanese firms to move into China and Southeast Asia.[16] However, closer economic ties require the amelioration of infrastructural bottlenecks in transportation, telecommunications, and power systems.

The Flying Geese model for regional development is *not totally accurate* as regionalised production has taken place only in selected sectors of the developed states to the NICs and new/next NICs. Although the model does not require a *total* shift in production location, this partial diffusion has led to a intraregional hierarchy within certain industries where producers depend on Japanese corporations for essential technology. In their domestic production, Japanese corporations have rarely left entire sectors as they

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Bernard and Ravenhill, 175-78. See also Chi Schive, "Taiwan's Emerging Position in the International Division of Labour," and Raymond Chang, "Taiwan's Emerging Economic Relations with the PRC," in Denis Fred Simon, ed., *Taiwan beyond the Economic Miracle*, (London: M.E Sharpe, 1993), 101-21 and 275-94 respectively.

16

Lavergne, 12, 14, 17-18. See also Vincent Cable and David Henderson, eds., *Trade Blocs: the Future of Regional Integration*, (London: Royal Institute of International Affairs, 1994).

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have continued to manufacture high-end products. Also, manufactured *final* exports from NICs and ASEAN largely go to North America and Europe, less so to Japan. Regionalised production helps reduce Japan and NIC trade surpluses with their major trading partners and transfer political tensions over imbalances to other states in the region. However, there have been concerns that regionalised production and growth zones reinforce Japanese and Overseas Chinese technological or commercial dominance. Examination of local firm and MNC production data from a growth zone supports the contention that offshore production is targeted for export or further processing in the region.[17]

While developed countries shift from Fordist production structures, firms operating in the growth zones for market access and costs considerations exhibit neo-Fordist characteristics in their labour processes, supply and distribution networks, technology utilization or transfer, and sources of finance. Firms moving from the zones' core cities to hinterland areas nearby are often in declining industries in their home bases and are shifting their production abroad to lower production costs, avoid host market entry barriers, and circumvent export market trade barriers. Multi-National Corporations located in the growth zones are pursuing a **globalization** or **global localization** (*glocalization*) strategy. The former involves a worldwide intrafirm division of labour where locational strategies are based on scale economies and comparative advantage. Production is geared to world markets and standardized tastes with Research and Development (R&D) spread throughout. The latter is based on a geographically concentrated interfirm division of labour with integrated supply, distribution, and production chains in major regions. Production is geared towards local or regional

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Bernard and Ravenhill, 124 and 127. Concerns about hollowing out in Japan, Taiwan, and Korea may be overstated as firms in these countries are forced to upgrade into higher-end products and services.

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markets while basic research is concentrated at home and applied research is spread out.[18]

Production and trade are driven by investment capital from the West, Japan, the Newly Industrializing Economies (NIEs) and underpinned by both a global regime of liberal trade, investment and NTBs in selected industries. These global commodity chains (GCCs) are *producer or buyer driven*, highlight the roles of industrial and commercial capital, and show how export oriented production involves local sourcing of inputs. GCCs are transnational production systems that link firms in organizational and technological networks to produce and market specific products. "*Producer-driven commodity chains*" (PGCCs) involve transnational subsidiaries linked to a core manufacturer, which then distributes its mass production to distributors and retailers. Such capital and technology intensive sectors include cars, computers, aircraft, and heavy machinery. Transnational subcontracting and alliances are common. In contrast, "*Buyer-driven chains*" (BGCCs) involve decentralized, flexible production networks where branded companies and retailers have both primary and secondary ties to trading firms and overseas factories. These chains produce toys, footwear, garments, and consumer electronics.

GCCs often exploit economic, linguistic, familial, and historical ties to facilitate their operations. There is both geographic spread and functional integration of activities in these chains. They consist of a value-added chain of products, services, or resources across relevant industries; geographic dispersion of production-marketing networks nationally, regionally, and globally; enterprises consist of local and multinational subsidiaries; along with a governance structure which determines authority and power relationships between firms. GCC exports consist of primary commodities, export processing or assembly, component subcontracting, original equipment manufacturing (OEM), and original brand name manufacturing (OBM). OEM requires producers to make

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Charles Oman, *Globalization and Regionalisation*, (Paris: OECD, 1994), 78-88, 92-4; Winfried Ruigrok and Rob van Tulder, *The Logic of International Restructuring*, (London: Routledge, 1995), 3-7, 23, 33, 61, 81, 84, 89, 92, 112-3, 116, 180, 189, 271-7, 285, and 296-8.

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finished products to be sold under another brand name than the subcontracted manufacturer. This requires design interpretation, quality control, and on-time delivery by the producer and supporting firms, which learn to develop backward linkages. Both growth zones studied here are examples of component supply subcontracting and OEM.[19] Profits are derived from design, marketing, and retail service, rather than economies of scale or advanced technology. Orders are placed by the core firm to its subcontractors, who then further outsource production, before returning the final products to the parent firm's designated locations.[20]

Chapter One introduced the topic of growth zones or triangles. Chapter Two will outline the theoretical and methodological framework. Chapter Three reviews the literature on Hong Kong and Singapore's postwar economic development, especially the relationship between state-based authority structures and markets. Chapters Four, Five, and Six analyse the Greater China growth zone. Chapters Seven and Eight analyse the Johor-Singapore-Riau (JSR or SIJORI) growth zone. The arguments presented in chapters four to eight utilize available trade, investment, and industrial production data to illustrate the hypotheses outlined here. Chapter Nine provides a comparative assessment and discusses the implications arising from the differential development of the Hong Kong and Singapore growth zones.

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Gary Gereffi, ed., *Commodity Chains and Global Capitalism*, (London: Greenwood Press, 1994), 1-12 and 165-240; ibid, "Global Production Systems and Third World Development," in Barbara Stallings, ed., *Global Change and Regional Response*, (New York: Cambridge University Press, 1995), 102-5, 107-10, 112-21, 141-42. Labour intensive industries usually employed a mix of young men and women, often non-unionized.

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Such third party production can be traced back to US and European Union Non-Tariff Barriers (Voluntary Export Restraints, Orderly Marketing Arrangements) directed against Japanese and East Asian exports during the 1960s and 1970s.

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Chapter Two: Theory and Methodology

Key Variables: crises as growth zone catalyst

The recent literature on international events' impact on domestic actors' preferences and behaviour has an implicit pluralist bias because policy outcomes are seen as functions of political conflict shaped by different actors' preferences, weighted by their market power and collective action propensity. An economic crisis is an event that combines a major downturn in the business cycle, alters the relations between governments and firms in a given polity, and changes in the geographic location-distribution of production. During a crisis, social actors evaluate present and alternative policies in relation to costs, benefits, and prevalent or relevant ideas. Policies are chosen by politicians and bureaucrats and their choices are constrained by the need to mobilize and retain support from other societal actors. Crises can strengthen reformers' bargaining position against status quo proponents and provide an opportunity for change. Changing economic conditions are mediated by representation mechanisms, state organization, ideology, and international position.[21] Previous historical development of institutions can affect later political-institutional processes. Rapid political change occurs during short-term upheavals followed by longer periods of stability. There is a reciprocal interplay between agency and structure as actors alter political or socioeconomic structures in crises. Once formed, social structures constrain agents so that institutions are both products and constraints. The rules and structures designed to deal with one crisis may be ineffective for future ones.[22]

The dissertation will attempt to explain the extent to which growth zone

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Examples of these factors include: political parties; interest group associations; systems of rules; and institutional bureaucracies. Gourevitch, 20-21. Economic ideologies can also frame political goals and coalition requirements. Gourevitch, *Politics in Hard Times*, 43.

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Miriam F. Elman, "Foreign Policies of Small States: Challenging Neorealism in Its own Backyard," *British Journal of Political Science*, 25 (April 1995), 182 and 186-89; Kathleen Thelen, Sven Steinmo, and Frank Longstreth, eds., *Structuring Politics: Historical Institutionalism in Comparative Politics*, (NY: Cambridge University Press, 1992), chapter one.

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development embodied some mix of the following options. *Liberalism or neo-classicism; Protectionism; Keynesian demand stimulus; and Mercantilism* are four political-economic policy responses, available to states, to external events and economic interdependence. Zonal states respond, in different ways, to important economic events that change their domestic production profiles. The *Liberal free-market option* holds that decentralized decision-making in response to incentives yields the greatest output and wealth. Shifts in production geography illustrate changing comparative-competitive advantage in the regional or global production hierarchy. Here, governments have a limited role in to play, essentially providing a stable macroeconomic environment in which prices are "right", encouraging open trade, private investment, and investing in human capital.

Protectionism can occur through tariffs and non-tariff barriers and is designed to aid those actors threatened by foreign competition. Government intervention is mediated through the marketplace and supports one cross-class coalition versus another. *Keynesian demand stimulus* uses government deficit spending to boost a flagging economy as more spending would increase demand, profits, and investment. Deficits would be reduced once the economy was buoyant. *Mercantilism* means state action to assist, through subsidies and regulations, firms or sectors at the microeconomic level. The respective choices made by Hong Kong, Singapore, and the other zone economies highlight the extent to which subregional zones are a result of state and market-led developments, especially attempts to ascend the technological hierarchy and concentrate production sites for MNCs and indigenous firms.

Private and public institutions have a significant bearing on how political processes are affected by international events, when economic internationalization alters domestic actors' preferences in the domestic economy. Preference changes are filtered through political systems with different institutional attributes. Assuming the goal of all governments is to retain office, this would entail wealth redistribution to core political

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constituencies and presiding over an expanding economy. Such institutions condition distributional demands from changes in actors' preferences and influence macroeconomic outcomes associated with different government policies. The better institutions perform under changing conditions, the greater latitude governments will have to pursue policies beneficial to distributional interests. Political change is also expected to be smoother in stable democracies than in authoritarian regimes. The more institutions privilege core groups that support the incumbent government, the more incentives government has to maintain policies that benefit supporters. The more authority over policy rests with an independent bureaucracy, the less policy change will be associated with changing private sector preferences.[23]

The legitimacy of governments and states depends on how well they manage the impact of a changing international economy, especially transnational production and capital flows. Governments are still expected to provide public goods, such as regulatory structures and social welfare, and promote a favourable economic investment environment through a competition state.[24] The transnationalization of production and services has made societies in various countries more vulnerable to fluctuating economic conditions. By comparing the differences and similarities in Hong Kong and Singapore's responses to external change, one can understand how and why growth zones developed. The advent of growth zones are examples of government and private sector attempts to deal with economic change. The core city-state's respective production profiles constitute the key link in understanding growth zone emergence as a response to international or regional

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Geoffrey Garrett and Peter Lange, "Internationalization, Institutions, and Political Change," *International Organization*, 49/4 (Autumn 1995), 627-33; chapters by Keohane, Milner, Jeffrey Frieden, and Ronald Rogowski in Helen Milner and Robert Keohane, eds., *Internationalization and Domestic Politics*, (New York: Cambridge University Press, 1996).

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Philip Cerny, "Globalization and the Changing Logic of Collective Action," *International Organization*, 49/4 (Autumn 1995), 596-619; Peter Gourevitch, *Politics in Hard Times: comparative responses to international economic crises*, (Ithaca: Cornell University Press, 1986), 37-53; Mike Webber, "Changing Places in East Asia," in Gordon Clark and W.B Kim, eds., *Asian NIEs and the Global Economy*, (Baltimore: Johns Hopkins University Press, 1995), 28-31.

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events. Analysing the interaction between international factors and domestic coalitions, in response to outside events, can help explain both foreign economic policies and intra-societal conflicts.[25]

Research Methodology

The dissertation attempts to examine the plausibility of hypotheses for the liberal, mercantilist, protectionist, and keynesian options listed earlier. Their explanatory value is enhanced to the extent that alternatives are considered and found to be less consistent with the data. Based upon empirical information gathered by open, consistent procedures, descriptive and explanatory inferences will be drawn. Data will be collected for the same explanatory variables in each case study. The publicly available data from international organizations, governments, industry organizations, labour unions, and universities will be analysed, supplemented by interviews with government, business and labour officials.[26] Moreover, the use of structured, focused comparison in the dissertation relies upon analytic induction. Controlled comparison can identify different causal patterns for the cases studied because both differences and similarities are of interest. Both case studies were selected for comparison because they share a number of important attributes; specifically, they are both port cities with significant, export-oriented processing and assembly industries. The comparative method is used to examine certain forms of integration and interdependence within the growth zones. Given the present literature on growth zones, concerns about selection bias may have to wait until future research examines other zones in order to increase sample population size for statistical analysis. Although two cases are not a representative sample, case selection is guided by interest in

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Peter Katzenstein, *Small States in World Markets: Industrial Policy in Europe*, (Ithaca: Cornell University Press, 1985), 37.

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George in Lauren, ed., 57-59; Gary King, Robert Keohane and Sidney Verba, *Designing Social Inquiry: scientific inference in qualitative research*, (Princeton: Princeton University Press, 1994), chapters one, five and eight.

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a variety of different causal patterns for the dependent variable.[27]

The *independent variable* is an important external economic event. The external events of interest include the twin oil shocks of 1973 and 1979; greater export market protectionism in the 1980s as seen in increased use of non-tariff barriers to stem NIC exports; the 1985 Plaza Accord; and the 1987 Louvre Accord. The Plaza agreement revalued the Yen relative to the US dollar and devalued other Asian currencies relative to the Yen, encouraging Japanese, Hong Kong, and Taiwanese FDI into China, Malaysia, and Indonesia. The 1987 Louvre negotiations reversed the Yen's appreciation versus the US dollar and spurred another round of external investment in both zones. A shock or major external event (*independent variable*) punctures the status quo and affects societal actors differentially such that pressure builds for change to alleviate problems. The *intervening variables* are the societal groups and state institutions affecting domestic interest formation, aggregation, and articulation of policy responses as domestic production profiles change. The *dependent variable* is the existence of sub-regional growth zone, as a reaction to external economic shocks, influenced by the participant's respective production profiles.[28]

The following can be **indicators of increasing integration** and shifting production profiles, for selected industries, during 1985-1997: bilateral (re)export-import data; (sub)national shares of FDI; official policy statements regarding growth triangles; employment level data; value-added and firm size statistics. In this dissertation, Hong

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Alexander George, "Case Studies and Theory Development: the method of structured, focused comparison," in Paul Lauren, ed., *Diplomacy: New Approaches in History, Theory, and Policy*, (New York: Free Press, 1979), 49-50 and David Collier, "Translating Quantitative Methods for Qualitative Researchers: the case of selection bias," *American Political Science Review*, 89/2 (June 1995), 462-463.

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David Collier, 464; review symposium on King, Keohane, and Verba in *American Political Science Review*, 89/2 (June 1995): 454-84. Hong Kong and Singapore are matched on the dependent variable but differ on other variables so that they are part of a most different systems design. Measuring reexports through available trade statistics is difficult as bilateral flows can be recounted through third country destinations. Cross border imports destined for further processing can inflate overall totals and mask value added content. Certain industries were selected because of their contributions to GDP and similar capital needs, labour intensity, and investment return.

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Kong and Taiwanese trade and investment data for FDI in China; bilateral and triangular trade and investment flows; plastics; toys; footwear; watches; consumer and computer electronics; and high technology products will be gathered. For Singapore, bilateral trade and investment for Malaysia (Johor) and Indonesia (Batam) will be gathered in consumer and computer electronics; petrochemicals; shipping; watches; toys; footwear; plastics; and pharmaceuticals.

For the 1985-1997 time period, Hong Kong and Singapore should experience changing production profiles in terms of the industries listed above. **Specifically**, there should be **changing shares in domestic GDP/GNP for manufacturing and tertiary sectors** (domestic production profile). External shocks should spur the relocation of manufacturing production to nearby jurisdictions. The nine chapters in this dissertation will examine the following hypotheses:

Hypothesis One: if, in the creation of growth zones, participant economies pursue **liberal-neoclassical policies**, this would involve **no visible use** of industrial policy instruments and **increased** domestic government spending.

Hypothesis Two: if, in growth zone creation, **mercantilism** is pursued, this would involve **increased use** of industrial **subsidies**, currency **devaluations**, and/or trade-investment **regulations**.

Hypothesis Three: if **protectionism** is chosen, there should be an expected increase in tariff and non-tariff barriers for trade and investment flows between zone economies.

Hypothesis Four: if **Keynesianism** is chosen as a policy option, then one can expect increased government spending to support domestic demand and increased government budget deficits.

Hypothesis Five: if external uncertainty increases, growth zone participants should experience increased trade and investment flows with each other because of the economic complementarity supposedly underlying intra-triangle cooperation.

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Hypothesis Six: if economic security refers to an absence of threat and fear to acquired economic values, I hypothesize **growth zone ties strengthen, with more trade and investment, when the threat of conflict** is low and trade-investment regimes are open. *Hypothesis Seven*: if growth zone participants are highly reliant on imported raw materials and external trade, **I hypothesize such member states have more disputes with neighbours than those who do not. Higher levels of economic interdependence would then be associated with greater probability of conflict over resources and markets.** Perceptions of insecurity may lead states to establish vertical ties, military or economic, with (weaker) neighbours.

Review of Recent Development Debates

This chapter outlines the recent development literature, theoretical framework and methodology for the dissertation. The Statist, Modernization, and Dependency perspectives are three contending explanations offered in contemporary analysis of East Asia's economic development since 1945. The statist explanation for postwar East Asian industrialization highlights how state intervention was crucial in the formation of a coherent economic growth strategy. The modernization perspective sees free markets and linkages between developed and underdeveloped countries as the key factors explaining economic growth in the latter. Economic development would foster democratic participation through the diffusion of economic benefits. However, dependency scholars argue developing countries, in a global capitalist system, rely upon exploitative foreign capital, protectionist export markets, and selected commodities for unstable export revenues. Distorted trade and development patterns occur as continued reliance on core markets, finance, and technology creates enclaves where elites or dominant class fractions receive much of the benefits. Core states and their multinational firms press for the suppression of domestic dissent and labour wages to enhance capital accumulation. Recent dependency scholars also argue that the domestic context shapes the levels of dependency

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and growth. But diversified growth can occur where a strong state orchestrates domestic industrialization that benefits the local bourgeoisie and multinationals. Dependency is self-reinforcing over time, manifest in deepening economic distortions, decisional penetration, and the emergence of dependent classes. Dependent development tends to be politically exclusionary and economically inequitable.[29]

However, the economic growth of the East Asian NIEs challenges both modernization and dependency schools. Dependency theorists can be overly deterministic in their emphasis on the structural nature of global capitalism. Agency, on the part of governments and firms, is minimized as dependent countries are characterized that way because of their attributes and remain so regardless of their actions. Singapore, like South Korea and Taiwan, is an example of state-led development with continuing, selective state intervention by state agencies in private sector decision making and market transactions to reach certain goals. Hong Kong, in contrast, is seen as a laissez faire paragon but should be seen more accurately as an example of state-induced growth where the private sector operates within a broad political, economic, legal and infrastructural framework established by the state. Contrary to dependency expectations, these NICs have attained high growth rates with equitable income distributions and continue to adapt to changing economic circumstances. Hong Kong's reaction to changing economic circumstances reflects both firm and peak association level efforts, in cooperation with the colonial state, to declining competitiveness in certain sectors. The cohesiveness of the dominant political and economic elites in both Hong Kong and Singapore is reinforced by industrial, commercial, and institutional concentration. Close social ties also augment the insulation

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Frederic Deyo, ed., *The Political Economy of the New Asian Industrialism*, (Ithaca: Cornell University Press, 1987), 13-15 and Ezra Vogel, *One Step Ahead in China: Guangdong under Reform* (Cambridge, MA: Harvard University Press, 1989), 43-59.

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of these elites from non-establishment groups.[30]

Understanding NIC growth and export-oriented industrialization (EOI) requires recognizing the influence of external shocks on development strategies and the role domestic political institutions play in economic decision-making. The neoclassical-modernization and dependency literature neglects politics and institutions. The former assumes economic incentives will lead to the voluntary selection of appropriate policies while the latter stresses the class and international structural determinants of policy. NIEs are polities with, broadly speaking, close business-government ties, weak labour movements, and politically insulated but administratively capable states. Neoclassical advocates argue that import substitution industrialization (ISI) created inefficient industries and costly distortions, in labour, agriculture, and industry, while participation in the international division of labour, based upon comparative advantage, would aid industrialization, technological adaptation, and entrepreneurial maturation. ISI exacerbated balance of payments deficits and increased vulnerability through a reliance on foreign aid, direct investment, and commercial borrowing. State intervention in ISI also created rent-seeking as protection persisted for selected industries. Where markets were suboptimal or imperfect, the task was not to abandon the market but to undertake reforms to ensure that international and domestic markets work more efficiently.[31]

According to Haggard, Hong Kong and Singapore are two examples of entrepots following export-led growth trajectories.[32] Following Japan's example ***in part***,

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Deyo, 244; Tai Lok Lui and Stephen Chiu, "Hong Kong: Unorganized Industrialism," in Clark and Kim, eds., 101-9.

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"The most important exception to laissez faire is land policy. Virtually all land belongs to the Crown, which publicly auctions long-term leases. The government can therefore stabilize the market by expanding or reducing supply unilaterally, ...The government has always drawn a sharp line between general supports that resemble pure public goods and sectoral guidance." Haggard, 11, 16-19, and 21.

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Stephan Haggard, *Pathways from the Periphery*, (Ithaca: Cornell University Press, 1990), 3-4. In contrast, Alwyn Young, *The Tyranny of Numbers: confronting statistical realities of the East Asian experience*, (Washington, DC: NBER Working Paper #4680, 1994) who argues postwar NIC growth can be attributed to capital accumulation through investment and higher labour force participation.

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Singapore's PAP government used fiscal incentives and state intervention to develop a manufactured export base. Hong Kong's colonial government, in contrast, provided a less intrusive business environment. Both were able to export to open, developed markets during the Cold War as many NICs were recipients of US aid and investment. Both Singapore and Hong Kong specialize in financial-commercial services as entrepots while labour intensive exports are produced by local manufacturers for multinationals and developed markets. They are intermediaries between primary exporting hinterlands and regional or world economies. Both city-states draw food and labour from the hinterland as their small domestic markets require servicing a larger market. The loss of hinterland markets in China and Malaysia, in 1949 and 1965, respectively meant diversification into manufacturing for economic survival. Over time, manufactures have become more capital intensive as costs and competition have increased from other NIEs and the service sector has become a more important part of the economy. Both entrepots had weak labour movements, controlled by the state or weakened by market adjustment, with a dominant commercial bourgeoisie in Hong Kong and multinational dominance in Singapore.[33]

Export competitiveness for Hong Kong's light industrial products was dependent on low-cost, disciplined labour. Socially or politically guaranteed labour cost containment was deemed necessary for export growth. Firm-level controls over a fragmented labour movement ensured labour costs were kept in check. Early EOI was not accompanied by greater state labour controls as industrial relations remained decentralized. Labour unions were not a threat to the incumbent regime because of the immigrant/refugee influx, divided union movement, and Sino-British agreement on the need to minimize political disruptions. The EOI concentration on light industries meant young workers labour in

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Haggard, 25, 27, 33, 42; K.Fukasaku et. al, *China's Long March to an Open Economy*, (Paris: OECD Development Studies Centre, 1994), 15-37; 40-9; Victor Sit, *Small and Medium Industries in an Export Oriented Economy*, (Hong Kong: University of Hong Kong Press, 1988), 21-40, 44-51.

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low wage jobs with little skill, advancement or mobility. Thus, small scale production in the EOI transition resulted in a more dispersed proletariat. The large number of small firms sustained continuity in local authority structures at the firm, community, and family network level. EOI required the implementation of effective exclusionary labour regimes, through coercion and corporatist structures, to preempt politically active labour unions.[34] A regime committed to laissez faire in trade, investment, joint ventures, and a decentralized employment structure allowed employers comparative advantage in labour costs. The British and Chinese service sector also had close ties with domestic manufacturers and assisted EOI after 1949. Political elitism and economic liberalism created domestically based industrialization with a strong local manufacturing class and weak labour force.[35]

Hong Kong's reaction to changing economic circumstances reflects both firm and peak association efforts, allied with the colonial state, to cope with declining competitiveness in certain sectors. The cohesiveness of the dominant political and economic elites is reinforced by industrial, commercial, and institutional concentration. Close social ties augment the insulation of these elites from non-establishment groups. With manufacturing firms moving to China, finance capital is leading the transformation of Hong Kong into a leading financial-commercial service centre. Hong Kong's financial and entrepot functions were boosted by Chinese economic reforms that increased trade and investment flows with the mainland. Labour-intensive industries facing loss of

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Deyo, 183-185, 187; K.K Seo, "Economic Reform and FDI in China before and after Tiananmen," in Lane Kelley and Oded Shenkar, eds., *International Business in China*, (London: Routledge, 1993) 109-36; C.L Hung, "Foreign Investments" in Lethbridge, ed., 180-205.

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Deyo, 106-109, 194-195, 199 and Vogel, 61-72. See also David Wall, "Special economic zones and industrialization in China," and John Thorburn et. al, "Foreign investment and economic liberalization in China- a study of Guangdong," in R. Adihari, ed., *Industry and Trade Policy Reform in Developing Countries*, (Manchester: Manchester University Press, 1992).

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competitiveness could move to China's SEZs to cut costs and avoid quota restrictions.[36] The next chapter will provide an overview of Hong Kong and Singapore's postwar economic development.

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In response to external and internal pressures, such as oil shocks, rising costs, and export market protectionism, NICs like Hong Kong and Singapore diversified into new product lines, markets, upgraded manufacturing capabilities, sought out more DFI, and expanded their niches as commercial and financial centres. Hong Kong exports of textiles and apparel, for instance, were subject to discrimination by importing countries and there was a lack of technologically sophisticated exports. In 1977, the government began to set up industrial estates to help defray land costs while an advisory commission on diversification noted the government should assist the electronics, engineering, and machinery industries to cope with trade barriers and cyclical fluctuations. The Industrial Development Board was set up to advise and monitor Hong Kong Industry but was riven by internal conflicts over government involvement in industrial promotion. Efforts to assist the local electronics industry overcome capital, R&D and technological limitations, were concentrated only in existing institutions, such as manpower training and education. Haggard, 152-154; Deyo, 119-122; Vogel, 434-49; Leonard Cheng, "Strategies for Rapid Economic Development: the case of Hong Kong," *Contemporary Economic Policy*, 13/1 (January 1995): 28-36.

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Chapter Three: Hong Kong and Singapore's Postwar Economic Transformation

This chapter reviews Hong Kong and Singapore's dynamic economic growth since 1945. After a historical summary of the prewar period, the transition to export-led industrialization and historical bases for subregional growth triangles will be analysed. The respective choices by participating governments are informed by their perceptions of economic history, prospects for inter-state cooperation, and international economic developments. Given their strategic geographic locations, both Hong Kong and Singapore have, historically, been outward oriented entrepots for their respective hinterlands and vulnerable to external shocks. Neither city-state had to contend with rural-based elites or modernize their agricultural sectors. Policy coherence was maintained by strong, independent executives, weak legislatures, and autonomous bureaucrats. The colonial authorities were also not inhibited by electoral constraints while the financial secretary controlled macroeconomic policy. Compared to the other Asian NIEs, Hong Kong stands out for its **relative lack** of state intervention. However, Hong Kong's postwar transition to export-led growth was aided by the influx of Shanghai manufacturers fleeing the 1949 Chinese Revolution. Hong Kong inherited a developed industrial class from China as labour was weakened by political divisions, market conditions, government repression, and the nature of the industrial structure. There was little organized pressure for state intervention in the economy. Commercial and financial establishments, not state agencies as in other NIEs, also assisted in long-term finance, marketing and product design.

Understanding Hong Kong's financier, entrepot, intermediary, and service centre roles in the emergence of the South China growth triangle requires a clear distinction between trans-shipment, entrepot trade, and direct trade. Hong Kong provides loans and direct investment for China, along with entrepot, commercial, and financial services to lower transaction costs. Transshipment means that goods are consigned directly from the

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exporter to a buyer in the importing country, via an entrepot where the mode of transportation may change. They do not clear customs and are not part of the entrepot's trade statistics because they are in transit. Entrepot trade involves imports designated for reexport through an entrepot buyer after customs clearance. These entrepot imports are further processed, usually involving changes to the products' shape, nature, form or utility, before reexport as a domestic export. Such exports would be classified, depending on local content definitions, as of entrepot origin and subject to quotas or preferences. Direct trade includes domestic exports and retained imports, with the latter defined as the difference between total imports and reexports.[37]

The Republic of China (ROC)-People's Republic of China (PRC)-Hong Kong (HK) triangle is also known as a subregional economic zone (SREZ) and focuses on Hong Kong, Shenzhen, the Pearl River Delta of Guangdong province, Macau, and the coast of Fujian province. It differs from the Singapore triangle because of its common cultural and historical links between the three entities, along with disparities in population and market size. Given external shocks and changing comparative advantages, Hong Kong has shifted into more capital or technology intensive sectors with zone partners serving as economic hinterlands. Economic ties between the PRC, ROC, and Hong Kong have increased as investment, trade, and production have shifted from the latter to the former. Also, China saw "external opening up as the key to modernization and accelerated growth."[38] Initially,

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For Hong Kong statistics, it is hard to track whether imports will always end up as reexports. For the purposes of this dissertation, the trade and investment patterns over time are of primary interest. Moreover, Chinese trade statistics do not distinguish between direct and indirect trade while Chinese figures for total imports from Hong Kong are understated compared with corresponding Hong Kong figures for exports to China. Chinese statistics attribute a good portion of imports via Hong Kong to the country of origin. Western and Hong Kong figures, along with Chinese and Taiwanese statistics where appropriate, will be used in the analysis of how trade and investment flows are indicators of triangle development and economic integration. Borrowing from Sung, time lags and differences between fob and cif prices are ignored. China's exports via HK are taken to be Hong Kong's imports from China for reexport. Chinese exports retained for internal use are labelled as retained imports while PRC imports via HK are seen as Hong Kong reexports to China. PRC imports of HK goods are viewed as domestic exports to China.

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Steve Chan, "National Security in the Asia Pacific," *Contemporary Southeast Asia*, 14/1 (June 1992), 24 and 26; Reginald Kwok, "Hong Kong Investment in South China," in LaCroix et. al, eds., 74; and Y.W Sung, 15-6 and 25-6; Shelley Mark and Won Bae Kim, "China and the NIEs in the post-GATT World," in ibid., 259.

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China wanted to import modern foreign technology and increase export earnings so they extended preferential treatment, such as favourable tax and profit remittances, to foreign and joint venture firms located in the Special Economic Zones (SEZs).[39]

The JSR zone also involved a state sponsored project in the construction of a sub-regional identity. There was also a historical basis to the growth zone dating back to the Johor-Riau Sultanate (1511-1824) until the British and Dutch consolidated control over Malaya and the East Indies respectively. Singapore faces limits on land and labour that Johor and Riau do not while the latter two rely on the infrastructure and skilled workforce of the former. The original name for the Singapore-Malaysia-Indonesia growth triangle, called SIJORI (Singapore, Johor, Riau) since 1989, changed to IMS-GT (Indonesia-Malaysia-Singapore Growth Triangle) when the three countries signed a December 1994 Memorandum of Understanding (MOU) providing its first official endorsement. Given external shocks and changing comparative advantages, both Hong Kong and Singapore have shifted, with mixed success, into more capital or technology intensive sectors with zone partners serving as economic hinterlands. The People's Action Party (PAP) has promoted this triangle through infrastructure investments to access nearby cheaper land and labour. JSR's development involved political decisions to reduce barriers to investment and trade although, to date, growth has taken place more on the Singapore-Riau and Singapore-Johor axes instead of the Johor-Riau axis because of conflicting complementarities. Johor and Riau both compete for various types of labour-intensive manufacturing from Singapore on the basis of lower land, labour, and regulatory costs. The Singapore-Johor leg is more informal than the Singapore-Riau segment as the latter is reinforced by bilateral agreements over Batam and Bintan. In terms of a internal hierarchy, Singapore has focused more on becoming a regional finance, business and high-technology

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Kleinburg, 53-55, 213-215 and Vogel, 224-50. Robert Scalapino popularized the term, Natural Economic Territories (NETs) in *The Last Leninists: The Uncertain Future of Asia's Communist States*, (Washington, DC: CSIS, 1992), 20.

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centre while unskilled and semi-skilled, labour intensive industries (textiles, chemicals, food processing) move to Batam and Johor respectively.

The definition of the JSR zone is also shaped by language and political discourse, in a particular narrative, to highlight those actors that are politically relevant, included, and excluded. From the 1970s to the 1980s, there was a shift in Singapore's self-conception from that of a global city to that of a key regional business centre. This change is manifested in the growth triangle strategy, support for ASEAN's AFTA, and APEC's free trade plans.[40] The regional discourse in Singapore's foreign economic policy is also influenced by concerns about emerging regional trade blocs, a more assertive local capitalist class concentrated in the financial service sector, and the state's increasing regional economic role. The Singaporean understanding of regionalism sees regions as concentric, overlapping circles of linkage. In this metaphor, an important ambiguity exists as concentric circles do not constitute an economic hierarchy. Regional language can mask Singapore's multiple regional economic identities. Using the language of Asian regionalism enables Singapore to construct a state identity in cultural terms and reinforce the PAP's domestic power.[41]

Wallace's definition of integration, the creation and maintenance of intense, diversified interaction patterns among previously autonomous units, is useful because the Hong Kong and Singapore zones do not include a free trade area (FTA), a pure customs

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Regnier, 65-95 and R.S Milne, "Singapore's Growth Triangle," *The Round Table*, 327 (1993), 291-303. Weatherbee argues the larger the number of participants increases the possibility of non-cooperation; extensive perceived asymmetries between states will affect the decision of smaller, less developed members; security considerations will usually outweigh economic cooperation; the zones thrive on earlier cooperation; and future SREZs, as a transactional structure of subregional multilateralism, should occur within a larger existing regional cooperation institution. Donald Weatherbee, "The Foreign Policy Dimensions of Subregional Economic Zones," *Contemporary Southeast Asia*, 16/4 (March 1995), 425-30.

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Kanishka Jayasuriya, "Singapore: The Politics of Regional Definition," *The Pacific Review*, 7/4 (1994), 412-14. In Hong Kong, definition of a regional role continues to include conceptions of the territory as an important regional financial centre and gateway to China. Still, there is a growing awareness that Hong Kong cannot become less of a international business city at the risk of becoming more of a "Chinese" city.

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union, a common market, nor economic union.[42] In both the Hong Kong and Singapore cases, changing political conditions and comparative economic advantage in the global and regional division of labour facilitated the development of growth zones. Both allow for a potentially more efficient division of labour, economies of scale, and niche market specialization through market expansion.[43] The SEZs set up under Deng Xiaopeng were to be a window for Western imports of skills and technology but became an import and export processing zone linked to Hong Kong and Taiwan providing cheap land and labour for labour intensive industries. These zones also allowed foreign companies to access China's protected markets, helped Taiwan and Hong Kong transfer their trade surpluses to the mainland, and showcased China's relations with Overseas Chinese.[44]

In both zones, several of the participants possess the attributes of an autonomous, interventionist state, emulating Japan. Taiwan and Singapore are well-documented cases while Hong Kong has some developmental characteristics in the colonial government's provision of infrastructure and sponsorship of flexible production networks among manufacturers. Malaysia, China, and Indonesia also utilized the state as an instrument of economic development and intervention. Closer ties between the domestic business community and the government exist than between the ruling regime and organized labour or left-wing parties. The state is actively involved in shaping comparative advantage for a variety of economic sectors. Both zones, then, are part of a changing regional production

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William Wallace, "Introduction: the dynamics of European Integration," in Wallace, ed., *The Dynamics of European Integration*, (London: Pinter for the RIIA, 1990), 9. A Free Trade Area abolishes discrimination between member countries but separate customs remain for members' non-FTA imports. A customs union abolishes trade discrimination between members and adopts a common external tariff. A common market abolishes both trade discrimination and allows free movement of production factors, like labour and capital. An economic union centralizes economic policies, issues a common currency through a supranational central bank, and harmonizes monetary, fiscal, and welfare policies between members. Bela Belassa cited in Jeng-Dau Wu, *On the Feasibility of Chinese Economic Integration*, Unpublished PhD dissertation, Golden Gate University, San Francisco, 1992. 11-12.

43

Wilkinson, *Labour and Industry in the Asia Pacific*, 166-73 and J.D Wu, *Feasibility of Chinese Economic Integration*, 17-21.

44

Robert Kleinburg, *China's Opening to the Outside World- the experiment with foreign capitalism*, (Boulder: Westview Press, 1990), 48-49 and 65.

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or economic hierarchy.[45]

The spread of Japanese post-Fordism can be traced back to Japanese DFI, and trade flows with long-term supply and subcontracting networks, after the September 1985 Plaza Accord revalued the yen. This raised the political saliency of continued trade surpluses, especially with the US, and rising production costs in Japan. Much of this DFI flow went into the NIEs and ASEAN developing countries as local small and medium enterprises (SMEs) produced a variety of affordable products for their multinational parents. Moreover, market demand in Japan encouraged small-scale, flexible production that stressed production innovation, rather than new product creation. The spread of post-Fordist Japanese practices include "networks of production [that] have incorporated both technology intensive and labour intensive production processes."[46] These flexible production networks link firms within and across countries in the region. Japanese firms have also linked up with overseas Chinese firms in Hong Kong and Southeast Asia to exploit market openings, complementaries in resources, and similarities in networks or business groups.[47]

The postwar dependence on export led growth made NIEs vulnerable to exchange rate revaluations, especially industries with a high labour cost component. Offshore relocation of industries also raises questions about worker retraining and social welfare

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Richard Stubbs, "Asia Pacific Regionalisation and the Global Economy: a third form of capitalism," *Asian Survey*, 35/9 (September 1995), 785-8. Closer economic integration, perhaps even the growth triangles, must be understood in the context of different regional forms of capitalism in North America, Western Europe and Asia Pacific. Capitalism is a system in which the ownership or control of the means of production, including land, labour, and capital, by individuals and/or organizations is to create a profit, some of which is reinvested for further capital accumulation. With the end of the Cold War, their differences have become more visible as Asia Pacific capitalism is characterized by the rise of a strong, developmental state; the structure of industry; and the role of Chinese and Japanese firms. In Western Europe excluding the United Kingdom, a social market philosophy holds sway while neo-liberal principles dominate North America and Great Britain. He places Japan and the NIEs at the core of the Asia Pacific region with ASEAN and other developing countries forming a periphery. Regionalisation is driven by market forces and the boundaries of the region do not coincide with state borders.

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Stubbs, 793. Most of Japan's DFI was made in the manufacturing sector, especially electrical machinery, components, transport equipment, and precision tools.

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Stubbs, 792 and 794-95; Stephen Chiu, K.C Ho and T.L Liu, "A Tale of Two Cities Rekindled: Hong Kong's and Singapore's divergent paths to industrialism," *Journal of Developing Societies*, 11/1 (1995), 98-117.

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costs. How well firms in Hong Kong and Singapore restructure will be a strong determinant of growth zone viability. Hong Kong, with small locally financed firms, stands in contrast to the multinational corporate structure and government intervention of Singapore. Hong Kong's commodity labour-intensive production faces higher land, labour, and building costs while fluctuating demand for exports has impeded sustained capital investment in capital and equipment. Close ties with China allowed Hong Kong to become China's commercial trading and financial hub by encouraging firms to reduce local commodity production, concentrate more on product R&D, focus on trading functions, and expand capacity by relocating production to China. The Hong Kong state, compared to Singapore, is less of an economic development agent and is more concerned with infrastructure provision and collective consumption. Likewise, Singapore companies face similar pressures and responded to the PAP's growth triangle and regionalisation strategies by relocating to southern Malaysia and western Indonesia. Singapore also offers state supported technology investment schemes, unlike Hong Kong, to assist in industrial restructuring but its industrial policies may be replaced by selective investment policies and regulations that do not detract from middle class demands for greater collective consumption.

Restructuring for the NIEs involves a shift from export led growth to one where imports grow on par with exports, the emergence of regional trading areas, currency revaluations, rising labour and land costs, export market protectionism, and changing domestic class structures. It alters the existing pattern of accumulation to redistribute benefits to different groups or classes in society. Responses include increasing labour supplies with immigrants, women, the elderly; using more subcontracted production; using more capital intensive production methods; and relocating to lower cost locations. The shift from export led growth to a more mature stage of balanced, slower growth also reflects a different accumulation model whereby restructuring benefits and harms certain

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groups, industrial sectors, or classes more than others. Changes in the domestic economy and polity, resulting from international shocks, are mediated through existing institutions as the past is selectively idealized, blame allocated, costs apportioned, and policy changes justified. The shift towards less export driven growth necessitates a decline in the rate of output growth, increased rates of consumption and investment. Accumulation and industrialization has also produced a large workforce and middle class, concentrated in urban areas, that have recently begun to press for improved working conditions, wages, income distribution, environment protection, and political liberalization in Hong Kong and Taiwan, but less so in Singapore.[48]

Hong Kong's Ascendance

Hong Kong was ceded to Britain, by Imperial China, after the 1842 Opium War. The New Territories were leased for ninety-nine years while Kowloon and Hong Kong island were granted in perpetuity. It became the major entry point for Western trade with China because of its harbour and strategic geographic location near the Pearl River estuary. Its free port offered no duties, low taxes, and British protection for colonial trade. Prior to World War Two, its entrepot trade linked it closely with southern China. After the 1949 revolution, entrepot trade declined and Hong Kong industrialized with the labour, capital, and machinery brought by refugees. As the British Empire de-colonized, Hong Kong was largely autonomous in its domestic administrative and monetary systems. The colonial government was also responsible for primary, secondary, and some tertiary education, health care, and public housing projects.[49] The Open Door policy and economic

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Gordon Clark, ed., *Asian NIEs and the Global Economy*, (Baltimore: Johns Hopkins University Press, 1995), 4, 6-11, 15-19, 252-65; Yin Ping Ho, *Trade, Industrial Restructuring, and Development in Hong Kong*, (London: Macmillan Press, 1992), 156-188.

49

Bernard Luk, *The Implications for Canada of Hong Kong's Future*, (Toronto: Joint Centre for Asia-Pacific Studies East Asia Policy Paper #4, 1994), 5-6; Yin-Ping Ho, *Trade, Industrial Restructuring and Development in Hong Kong*, (London: Macmillan Press, 1992), 1-8; Edward Chen, "The Economic Setting," in David Lethbridge, ed., *The Business Environment in Hong Kong*, (New York: Oxford University Press, 1993), 1-22. The establishment and expansion of SEZs within these provinces, and their later expansion to other parts of China, had economic and political purposes; namely, improve trade flows with non-communist markets, allow for foreign investment into designated geographic areas and industrial sectors, ease the transition for Hong Kong and Macau back into the PRC, and provide an

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reforms since 1979 promoted closer ties between China, Hong Kong, and Taiwan, especially Guangzhou and Fujian provinces. This encouraged the restructuring of Hong Kong's economy, as labour-intensive, export-oriented manufacturing moved to Guangdong, while the local high technology and service sectors became more important. Compared to Taiwan, Hong Kong has provided most of the FDI in China, mature technology transfers, business skills, and still serves as the gateway to the rest of the world. However, increasing economic integration with the mainland will subject Hong Kong to the effects of Chinese domestic instability. The shift in manufacturing across the border also changes Hong Kong's industrial base.[50]

The colonial government maintained its independence from local manufacturers even after they became the dominant economic force in the colony. With the 1949 revolution, local entrepreneurs were augmented by a migrant influx and their flight capital, while the UN trade embargo on China pushed Hong Kong from an entrepot toward export manufacturing. The Chinese refugees spent their capital on textile and cotton spinning machinery, while the banks financed entrepreneurs in toys, electronics, plastics and apparel. Labour was weak because of the small size of manufacturing firms, left-right cleavages within the unions, and immigration's impact on real wage growth. The immigrant influx created a cheap labour pool in a decentralized labour market, weakening organized labour's power.[51] The large, diversified trading companies were crucial for Hong Kong's ability to adjust to the loss of entrepot trade, performing functions taken on by the government in other NICs. The embargo provided an incentive for commercial

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example for closer ties with Taiwan.

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Luk, 7-8, 18-19; Ezra Vogel, 126-195; and Yun-Wing Sung, *The China-Hong Kong Connection: the Key to China's Open Door Policy*, (Cambridge: Cambridge University Press, 1991), 1-11, 7-14, and 21-23.

51

Haggard, 115-116, 118-120; Alex H.K Choi, "Beyond Market and State: A Study of Hong Kong's Industrial Transformation," *Studies in Political Economy*, 45 (Fall 1994), 28-64; Chen in Lethbridge, ed., 23-45. Hong Kong's political structure shows parallels to the East Asian pattern of a highly insulated state, limited representation, and a internally cohesive economic decision-making structure.

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enterprises to establish closer relations with manufacturing. Hong Kong is mostly laissez faire as infrastructure provision and financial regulation are the sole public goods provided. There are no foreign exchange, trade or investment restrictions while taxation and fiscal policies are conservative. Beyond infrastructure services, export market diversification assistance, and education, there is little microeconomic intervention. The most important exception to laissez faire is land policy. Virtually all land belongs to the Crown, which publicly auctions long-term leases. The government can therefore stabilize the market by expanding or reducing supply unilaterally.[52]

After 1949, Hong Kong shifted from entrepot activities to Export Oriented Industrialization (EOI) through labour-intensive light manufacturing. Initially, textiles and clothing exports formed a significant share of Hong Kong's total merchandise exports. In contrast, food processing and printing formed large shares of Singapore's value added industrial output. Later, petroleum refining, shipbuilding, and electronics became key sectors of employment, investment, and output. By the early 1970s, clothing and textiles were less important for Hong Kong, although the former's share was larger than the latter, due to Multifibre Arrangement (MFA) quotas. The relative shares of electronics, electrical machinery, and precision-metal products rose as Hong Kong's industrial structure changed. More exports were directed towards China and the rest of Asia after 1979 as market shares in major developed countries did not grow rapidly. With Taiwan changing its industrial structure towards higher value added products, such as electronics, chemicals, and machinery, textiles and apparel, firms had to find lower cost locations or upgrade their output. Both Hong Kong and Taiwanese investors contracted investments in Guangdong and Fujian for their labour intensive operations assembly and processing

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52

Haggard, 122-124. The Hong Kong authorities' term for laissez faire, positive non-interventionism, limited state intervention to regulatory oversight of monetary policy, financial institutions, and foreign exchange markets; provision of basic social services, such as public housing, medical services, education; and the sponsorship of advisory boards with the private sector. Haggard, 151.

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operations.[53]

Hong Kong's postwar development was constrained by a lack of natural resources, limited land area and small domestic market. Multi-level factories meant a concentration on light industries, with imports of upstream industrial components or materials. The dearth of product R&D from the government limited the diffusion of technological innovation, with manufacturing dominated by apparel, electronics, watches/clocks, textiles, plastics, and metal goods. Increasing production costs meant firms had to relocate to China, diversify into other products, or upgrade quality. The relocation of labour intensive production increased demand for capital goods from Hong Kong, including: telecommunications equipment; electrical appliances; data processing machines; injection moulding machines; lathes; power presses; and machine tools. The 1997 return of Hong Kong to China will relieve the land and labour bottlenecks currently facing Hong Kong but not the need to upgrade services and production, in terms of quality, cost, and delivery time. Taiwan's investments in the mainland may also allow it to access mainland resources and skilled labour further in its drive to maintain competitiveness.[54]

The China Factor

From 1949-1978, Guangdong was neglected by the Chinese Communist Party (CCP) regime in Beijing in terms of domestic investment. Output accordingly lagged because of inefficient central planning while the province's historic overseas ties, and proximity to Vietnam, Taiwan and Hong Kong, made it suspect in the eyes of the communist leadership. Its relatively low economic status, by the time reforms began to be

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Like Singapore, the lack of a domestic market made ISI an unviable option. After independence, Singapore relied on its role as regional resource entrepot, and associated infrastructure, to attract foreign multinationals' manufacturing operations. See chapters by Chen, Li, Yeung, Leung, Henderson, and Cheng in Edward Chen et. al, eds., *Industrial and Trade Development in Hong Kong*, (Hong Kong: University of Hong Kong Centre for Asian Studies, 1991).

54

S.K Chan, *Development of Manufacturing in China*, paper presented to International Conference on Manufacturing Technology, 29 December 1991, 1-4. If the service content of manufacturing is included in defining manufacturing's share of HK GDP, then manufacturing is not declining relative to other sectors.

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debated after Mao's death in 1976, historic endowment of entrepreneurship, and overseas Chinese links with Hong Kong made the location of SEZs in Guangdong (and Fujian) politically and economically suitable. This strategy was not chosen for more important centres like Shanghai. If reforms did not work, the CCP felt negative consequences could be controlled in a peripheral, geographic area. If they did, eventual reunification with Macau, Hong Kong and Taiwan could be facilitated. Economic reforms in China have progressed incrementally with the process expedited or hindered by the internal, factional struggles between reformers and conservative in the CCP. Reformers, such as Deng Xiaoping, Hu Yaobang, Zhao Zhiyang, and Zhu Rongji, pushed for market liberalization during the reform-retrenchment cycles from 1979-80, 1983-85, 1988-89, and 1992-93, opposed by Yang Shangkun, Li Peng and, until recently, Jiang Zemin.[55] With each reform phase, more regions of the country were opened to foreign investment, trade, and market activities through decentralization of decision-making. Opponents clamped down on reforms after trade imbalances, inflation, and corruption became unmanageable. These problems can be attributed to a partially reformed banking/finance system and disputes over fiscal resource transfers between centre and provinces.

Initial reforms started in agriculture, with farm decollectivization designed to spur food production. In 1979, legislation was passed to form SEZs in Guangdong and Fujian while foreign trade was liberalized. After early economic growth, conservatives pushed for slower growth to stabilize the economy. The reforms set up for Fujian and Guangdong involved greater provincial autonomy in fiscal planning, retention of foreign exchange, labour management, price management, resource allocation, and control of commercial finance. Both provincial governments could approve foreign investments more easily and

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The 15th CCP Congress in September 1997 witnessed President Jiang Zemin push further economic reforms,including privatization of State-Owned Enterprises, as he adopted Deng Xiaopeng's reform mantle. Jiang also elevated Zhu Rongji to the Premiership and Li Peng took over from the retired Qiao Shi as head of the National People's Congress.

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established their own provincial foreign trade companies. Loans could be approved at the local level up to a specified quota as successful reforms strengthened the reformist camp. Beijing then granted Hainan more autonomy and opened fourteen coastal cities in April 1984 to external trade and investment.

After Zhao Zhiyang's November 1984 tour of the Pearl delta, the Yangtze delta and South Fujian triangle (Xiamen, Zhangzhou, and Quanzhou) received SEZ privileges by February-March 1985. An overheated economy led to the reimposition of economic controls after the December 1986 student unrest, which forced out Hu Yaobang. By December 1987, the Pearl River Delta Economic Development Zone was geographically enlarged and Hainan became a separate province in 1988. Moreover, Liaoning, Shandong, Guangxi, and Hebei were also opened to outside investment as the inland provinces supplied resources and labour to Guangdong. However, the growth engendered by the open zones and coastal cities was accompanied by price reforms that exacerbated domestic inflation and corruption. The repression of student-led popular protests at Tiananmen on 4 June 1989 led to a partial rollback of reforms passed in February 1988.

Tiananmen forced conservatives to rely on provincial hardliners for support and weakened the CCP's prestige. Guangdong authorities were reticent to heed Beijing's demands for recentralization as foreign trade reforms needed to continue after FDI stagnated in the post-Tiananmen period. Local authorities also did not repress dissent to the same extent as Beijing nor were private firms driven into bankruptcy. By 1990, CCP conservatives realized that reforms could not be eliminated, and tried to reassure investors with the designation of the Pudong SEZ near Shanghai. Deng Xiaoping's southern China tour of January 1992 broke the impasse between reformers and conservatives as Guangdong was designated the lead province for further reforms. The reform process allowed Guangdong to delegate autonomy to local governments, especially in keeping surplus revenues, decontrolling food prices, and approving foreign investments. Foshan

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and Shenzhen began issuing infrastructure bonds and used tolls in 1984-5, set up foreign exchange swap centres in 1986, auctioned land in 1987, set up a local stock market and privatized housing through mortgages in 1987.

SEZ development dates back to the internal debates within the CCP after Mao's death in 1976. Deng recognized that the Cultural Revolution had undermined the economy and society. Decentralization of decision making would be needed if agricultural and industrial output was to increase. There was initial domestic opposition within the party bureaucracy towards reforms as a deviation from communist ideology. The SEZs were categorized as state capitalist, at the 7-14 June 1982 Guangdong Provincial SEZ symposium (*Guangdong Jingji Tequ Xueshu Taolunhui*), to ameliorate concerns over foreign capitalism tainting Chinese socialism.[56] When China began its economic reforms and created the SEZs, there was domestic opposition within the CCP to the introduction of foreign capitalism and pressure to limit the geographic scope of SEZs. The four areas initially chosen, Shenzhen, Zhuhai, Shantou, and Xiamen, were located to take advantage of overseas Chinese (in Hong Kong, Macau, Taiwan, and Southeast Asia) affinity with their home districts. Initially, overseas Chinese investments in these zones did not bring in the desired western technologies. Western and Japanese firms preferred to locate in large, urban centres that had a population base to support skilled labour, infrastructure, and access to political elites. The need to attract further FDI and technology led to further openings to outside investment and the enlargement of areas open to foreign investment. Between 1984-88, Guangdong and Fujian provinces were opened to FDI more but Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Ningbo, Wenzhou, Fuzhou, Zhanjiang, Beihai, and Shanghai were opened. Hainan island became a separate

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David Wall, "China's Economic Reform and Opening Up Process: the role of the special economic zones," *Development Policy Review*, 11 (September 1993), 244-5, 247-9, 253-5. The Shekou industrial zone was established in 1979, in Bao'an county, to attract foreign joint ventures for the domestic market and was later subsumed into the Shenzhen zone. See also Crane, 146-64.

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open province, the Yangtze and Pearl river deltas, Liaoning, and Shandong regions were opened to trade and investment. Like SEZs, these open cities could implement flexible trade and investment policies to attract foreign capital. Beijing also approved the start of both Economic-Technological and High Technology Development zones within these cities.[57]

Any examination of China's Open Door policy and its effects on subregional integration must remember the intra-party struggles within the CCP (between reformers and conservatives), as well as the People's Liberation Army (PLA), over the desirability of economic reforms. Party cadres were also split between traditional ideologues and technocrats struggling for promotions. The latter faction wanted to decentralize decision-making and allow more autonomy to enterprise managers. Within the SEZs, light industry was emphasized more than heavy industry after different economic bureaucracies debated the impact of imports and outside investment. Foreign investment and trade were welcomed by officials in the coastal provinces where SEZs were first located. The success of SEZs encouraged reformers to maintain liberalization privileges in coastal regions and engendered a desire for similar treatment by other provinces. The incentives offered to attract joint ventures and foreign investment have succeeded but the types of industrial production in the open areas have not always met government objectives.

Chinese economic reforms under Zhao Zhiyang and Deng Xiaopeng have succeeded in encouraging growth, raised living standards, reintegrated China into the global political economy, but have also created tensions over corruption, inflation, as well as uneven economic benefits between the coast and inland. The leadership sought to improve China's security and international influence through a stronger economy.

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Michael Plummer and Manuel Montes, "DFI in China" in Sumner LaCroix et. al, eds., *Emerging Patterns of East Asian Investment in China*, (New York: ME Sharpe, 1995), 5. In examining Chinese and Hong Kong statistics, one must bear in mind that the former counts Hong Kong reexports to China as imports from Hong Kong, instead of from the country of origin. Official data also does not capture false invoicing and smuggling between trade partners. Y.W Sung, 78.

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Comparative advantage in labour and resource intensive production would provide an initial impetus for economic growth and technological advancements. The growth since 1978 has created a large, geographically mobile workforce from the rural sector into urban areas. China has become a semi-reformed economy no longer controlled by state planning entirely but with significant state intervention. This mixed system has state officials becoming business people and economic outcomes are determined by negotiations between bureaucrats and business people, particularly in the domestic debates over SEZ emergence, continuation, and proliferation. Clientelistic networks and other social forces have impeded the progress of further economic reforms through the rise of internal protectionism, arising from unbalanced growth, and inefficient SOEs. As part of the effort to attract trade and investment, the national, local and provincial authorities saw economies of scale in land, infrastructure provision, and agglomeration of skilled workers for the industrial estates within these zones. However, the proliferation of these economic zones has led to concerns regarding lack of central control, competition from various jurisdictions wasting resources, eroding the tax base, and creating internal trade barriers.[58]

Since reforms began after the December 1978 Third Plenum of the Eleventh Central Committee, Beijing had to periodically recentralize after inflation, corruption, and infrastructure/supply bottlenecks emerged. Not all the CCP's Open Policy goals of foreign exchange, technology imports, and skill acquisition could be met simultaneously. The Open Policy went through a series of de- and recentralizations between 1978 and the present, where tax incentives, concessions, import restrictions, and expansion of external relations were encouraged or tightened. Initially, reformers were anxious about economic stagnation and demanded innovative changes. But economic disorder or difficulties allowed opponents to garner support for recentralization to slow down an overheated

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Plummer and Montes in LaCroix et. al, eds., 8-10; Yao and Leung, 40-63; Yung, 83-5. J.D Wu, *Feasibility of Chinese Economic Integration*, 92-96, 100; John Thorburn, *Foreign Investment in China*, (Aldershot: Avebury Press, 1990), 12-24 and 127-65.

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economy. An economic slowdown permitted reformers to push for more liberalization.[59]

An Overview of Singapore's Postwar Economic Growth

After examining the city-state's prewar economic history, the analysis will focus on the transition to an EOI strategy after the union with Malaysia ended in 1965 and the economic shocks faced by Singapore since the 1970s. "In Singapore's economic development since 1900, the state stands out for the sharply contrasting roles it played. Before World War II, the colonial administration restricted itself to the maintenance of peace, stability, and an atmosphere conducive to future progress; but after 1959, government was pivotal in promoting development."[60] The concept of a growth triangle, more accurately known as a growth zone, incorporating economic linkages between Singapore, Johor (Malaysia), and Riau (Indonesia) was first articulated in December 1989 by Singapore's then First Deputy Prime Minister Goh Chok Tong as the creation of an economic zone, encompassing Singapore, Johor, and Riau, linking these three areas with different comparative advantages or factor endowments.

Geography has endowed Singapore with a large harbor at the southern tip of the Malay peninsula, astride the Straits of Malacca separating the South China Sea and the Indian Ocean. In the nineteenth century, Singapore developed as an entrepot for the Malayan region's primary commodities, especially after the 1869 Suez Canal opening. In Hong Kong, the Chinese Revolution and the strategic embargo associated with the Korean War reoriented traditional trade patterns. In Singapore, the breakdown of association with Malaysia launched a new phase in Singapore's economic growth. Singapore's shift to export-led growth was tied to the People's Action Party's (PAP) desire to broaden its

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Lawrence Reardon, "Editor's Introduction," *Chinese Law and Government*, 27/3 (May -June 1994), 3-7; ibid., 27/4 (July-August 1994), 3-8; Jude Howell, *China Opens its Doors-the politics of economic transition*, (Boulder: Westview Press, 1993), 11-39 and Yue-man Yeung and Xu-wei Hu, "China's Coastal Cities as Development and Modernization Agents," in Yeung and Hu, eds., *China's Coastal Cities-catalysts for modernization*, (Honolulu: University of Hawaii Press, 1992), 2-4.

60 W.G Huff, *The Economic Growth of Singapore*, (Cambridge: Cambridge University Press, 1994), 3-4.

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base of support.[61]

Singapore's early growth was dependent on tin, rubber, and petroleum exports. As a staple port and entrepot, Singapore provided financial, investment management, marketing, and mercantile services, along with access to hinterland production, that made it a commercial centre where decisions were made and power exercised. Prior to Japanese wartime occupation, an intermediary class of Chinese merchants played a complementary role to British controlled primary production and trade. Singapore has also remained ethnically diverse, with large Malay, Chinese and Indian populations. Governed separately from the rest of British Malaya, Singapore gained its independence in 1959 and joined the Federation of Malaysia in September 1963. This period was marred by the Malaysian-Indonesian confrontation and concerns about ethnic Chinese dominance of the new federation.[62]

From 1945-1965, Singapore regained its position as a staple port and entrepot for regional commodities, such as foodstuffs, rubber, tin, and petroleum. The rubber trade was dominated by Indonesian and Malaysian output and high rubber prices correlated with peaks in Singapore's total trade during 1950-51, 1955-56, and 1959-60. Textiles were the largest manufactured export as Singapore held large stockpiles in light of Indonesian foreign exchange problems. By 1959, an industrialization base had been built as the government improved docks, airports, power supply, education, and industrial estates.[63] From 1959-1965, there was an initial Import Substitution Industrialization (ISI) drive in

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Haggard, 30, 48; Rodan, 99-115; Philippe Regnier, *Singapore-City State in Southeast Asia*, (London: Hurst and Company, 1991), 27-48 and 50-4. Entrepots diversify out of purely commercial activities when conditions in either the hinterland or the world economy obstruct the entrepot's role as intermediary. The logic is the same; the returns to commercial activity decline in comparison to the returns on manufacturing.

62

Huff, 8, 14, 16-18, 25, 28-30. Huff noted that bringing surplus resources to foreign markets required large-scale immigration. As a result, Singapore developed as a Chinese city with a free port, a regional anomaly.

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Huff, 278-79, 285, 289-90; Garry Rodan, *The Political Economy of Singapore's Industrialization: National State and International Capital*, (London: Macmillan Press, 1989), 85-98.

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manufacturing and metal fabrication to take advantage of political union with Malaya and a common domestic market. Export oriented industrialization was a deliberate policy to shift away from a staple port economy. ISI represented an alliance with foreign capital to help ensure Malay rulers and Chinese capital profited from resource extraction. It also allowed the Lee faction in the PAP to control the industrial working class in the face of declining entrepot trade and rising unemployment after 1945. Postwar economic growth is attributed to its geographic location, importance as a key centre of commodity trade, large reservoir of human capital, stable government, and a favourable domestic environment that attracted multinational firms in search of low-cost manufacturing locations.

In Singapore's economic development, the state has played sharply contrasting roles. Before 1941, the colonial administration restricted itself to the maintenance of peace, stability, and an atmosphere conducive to future progress; but after 1959, government was pivotal in promoting development. Singapore had to prevent rapid wage increases as independence removed its labour market from the traditional Malaysian hinterland. Full employment was reached quickly and the resulting income increase enlarged savings and tax bases. Through public savings and the CPF (Central Provident Fund- a retirement fund whereby the state collects and invests workers' savings, paying them back on retirement), Singapore increased domestic capital formation. These accumulated savings allowed the government to finance infrastructure projects at low interest rates. Tourism, communications, finance, and transportation also became more important as the tertiary sector developed after 1978. Singapore's emergence as an international finance centre derived from its tradable services, its international profile, improved communications and transportation. Its location, existing human capital, open markets, political stability, and infrastructure also aided its comparative advantage in services. Unlike South Korea and Taiwan, but similar to Hong Kong, Singapore has shifted more into services as uncompetitive manufacturing has moved offshore. By 1994,

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Singapore continued to encourage industrial park investment and upgraded domestic assets, such as housing, transit, health, and education.[64]

For Singapore, trade growth depended on exports from the surrounding region, which required services and gave rise to manufacturing activities in Singapore. From the later 1960s, the role of trade in Singapore's economic development altered as the island began manufacturing for export on a large scale. Changes in transport and communications technologies highlighted its locational advantages. When Singapore reached full employment in 1973, trade led to further growth through resource reallocation and specialization. After 1965, open trade was combined with extensive state intervention into society and economy to ensure economic growth. Singapore's history, geography, and human resource endowment required a capacity to adapt to world demand conditions. Government policy choices, emphasizing state-sponsored savings, capital accumulation, and labour mobilization were made by a Western educated political elite. Regulation of labour flows helped capture the benefits of early staple port development. Singapore shows that the government can play an important developmental role as it intervened to clear labour markets, access external markets, provide public infrastructure, facilitate market price signals, and organize MNCs as a substitute for local entrepreneurs.[65]

Under British colonial rule, the destruction of the political left and external backing for moderate, anticommunist political leaders encouraged a strong state to emerge which combined political centralization with an efficient bureaucracy. The ruling elites' developmental autonomy could channel DFI to selected areas and control unions within

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Ramesh, 254-55; Deyo, 119-122, 237; Rodan, 137-55; Rachel van Elkan, "Singapore's Development Strategy," in Ken Bercuson, ed., *Singapore: a case study in rapid development*, (Washington, DC: IMF Occasional Paper #119, February 1995), 11-18 and Diane Mauzy, "Singapore in 1994," *Asian Survey*, 35/2 (February 1995), 183-184.

65

The early development of the growth triangle was dominated by leisure, property construction, and manufacturing concerns, largely joint ventures between MNCs and Singaporean firms. Fraser Roach, *The Growth Triangle*, (Singapore: Fraser Roach Company, March 1991), 1-8.

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state-dominated corporatist structures. By 1965, the PAP suppressed the left and organized labour in preparation for EOI. The short period of ISI did not build up a strong indigenous bourgeoisie so the PAP possessed political autonomy relative to both labour and capital. The PAP attracted foreign capital through the enforcement of a disciplined, low-wage, labour intensive production force. Corporatist structures, instituted by the 1967-68 Industrial Expansion and Industrial Relations Acts, helped monopolize legitimate political action through representative institutions controlled by the PAP. The National Trade Union Congress (NTUC) also acquiesced in the outlawing of strikes in the 1967-68 Industrial Relations Acts.[66]

The PAP restricted union activities through coercion and legislation. Pre-EOI political consolidation weakened opposition parties and labour as the state intervened to structure labour relations for the multinationals and domestic bourgeoisie. The PAP would later set up the NTUC, a corporatist labour body, to extend benefits and control wages. By the 1980s, the trade union structure would be more decentralized and welfare provision privatized. Unlike Korea and Taiwan where national firms gained ISI experience in light manufactures, Singapore did not have a sustained ISI phase and no large, domestic manufacturing bourgeoisie emerged so multinationals set up production of textiles, apparel, and electronics for export. Concentrated investment in the tertiary sector and distrust of parts of the domestic bourgeoisie meant the PAP did not trust the latter as an agent of economic development.

The EOI strategy entailed a new relationship with outside capital as FDI was encouraged through tax incentives and infrastructure provision. The predominance of MNCs in local production for export reflected the domestic bourgeoisie's political weakness and the alliance with Anglo-American, European, and later Japanese, capital.

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[66] Deyo, 240-41 and Christopher Tremewan, *The Political Economy of Social Control in Singapore*, (St. Martin's Press, 1994), 31-35.

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This weakness stemmed from the brevity of the ISI phase and MNC dominance. Manufacturing's share of GDP grew from 16% in 1966 to 24% by 1980 while office machine and telecommunications equipment exports expanded 22% annually from 1980 to 1990. Singapore turned away from its Chinese entrepreneurial class, to achieve export oriented growth almost entirely through foreign multinationals. Foreign firms accounted for over four-fifths of manufactured exports and intra-firm trade was a high proportion of these exports. Development through MNCs as a substitute for local entrepreneurship illustrated Singapore's tendency to respond to external changes and requirements. The 1973 oil price increases also slowed GDP growth, fuelled inflation, and led to export market protectionism. By 1978, growth from EOI had reached its limits with labour shortages, rising wages and land costs, and a stronger Singapore dollar.

From 1979 to 1986, the PAP-state attempted to reduce reliance on low-wage manufacturing and shift towards capital intensive activities. It increased wages, provided incentives for high-technology industrial capital with the Skills Development Fund (SDF), introduced the foreign worker levy to increase the costs of labour intensive production, and intensified its control over labour, education, and the political process. The 1986-88 recession highlighted this policy's failure to move Singapore into higher value-added sectors. Singapore's reliance on MNCs meant technological innovation and transfer was limited in depth and scope while dependence on key export markets remained. Poorer economic performance threatened to weaken the PAP's domestic hegemony as its legitimation rested in large part on a rising living standard. In order to restore its, and Singapore's, competitiveness, the PAP returned to a low-wage export strategy with wages freezes, tax cuts, and lower welfare contributions from employers. Singapore's government linked corporations (GLCs) also invested in other Asian countries and other

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industrialized countries to access technology, and markets.[67]

Both Malaysia and Indonesia provided tax and financial incentives for firms to move to their jurisdictions to avoid rising costs in Singapore. Although Japan was the largest overall investor in Malaysia for 1981-90, Singapore was the largest investor in Johor state, followed by Taiwan. By 1991, Singapore was the largest investor in Batam, followed by the US and Japan, in real estate, tourism, metal processing, drilling equipment, and electronic component assembly. Moreover, Riau developments required the approval of Jakarta while Johor had some autonomy to attract trade and investments. The Suharto regime began to develop Batam as early as 1970 in an effort to reduce oil refining dependence on Singapore and Batam Industrial Development Authority (BIDA) was set up in 1973 to facilitate economic growth. 100% foreign ownership is allowed in Batam for export oriented industries using skilled labour, non-polluting, and technology intensive but these sectors are harder to attract given the Johor and Singapore's comparative advantages. Both Kuala Lumpur and Jakarta envisaged future movements up the value-added technology hierarchy, in competition with Singapore. Johor and Kuala Lumpur differ occasionally over policy objectives and the distributional consequences of zone growth for the labour market and domestic inequalities. Investments from abroad also exacerbate concerns about inflation, social problems, and the economic role of ethnic Chinese in the economy. Batam is also dependent on Singapore for imports and the multiplier effects may reach the rest of Indonesia unevenly.[68]

67

Tremewan, 35; Huff, 31-40; Deyo, 103-6 and 233-5; Linda Low, *Challenge and Response: thirty years of the EDB*, (Singapore: Times Academic Press, 1993), 46-7; Geoffrey Murray, *Singapore-the Global City State*, (Folkestone: the China Library, 1995), 13-32.

68

After independence, Singapore relied on its role as regional resource entrepot, and associated infrastructure, to attract foreign multinationals' manufacturing operations. The share of manufacturing in total output rose from 16.6% in 1960 to 29% of GDP and employment by 1990. Transport, telecommunications, and financial services increased their share of total output after 1978 as Singapore became an international and regional financial centre, with the latter reaching 26.2% of GDP and 11% of employment by 1990. The focus on business/financial services reflects the PAP's efforts to retain high value added activities in Singapore, including the retention of important transport and transshipment functions. In addition to oil refining, Singapore continued to be an important primary commodity (foodstuffs, rubber, palm oil) entrepot, conducted by Singaporean Chinese family firms for Indonesia, Malaysia, and Thailand, even after 1973 when manufactured exports exceeded primary commodity exports (excluding petroleum). After the first oil shock, manufactures

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The reliance on foreign capital for employment creation and technology transfer required the PAP to emphasize flexible workforce programmes, infrastructure development, encourage technology diffusion, and R&D. Offshore production by MNCs in the 1970s and 1980s encouraged the development of supporting infrastructure and skill training programmes required by local, supporting firms. In response to rising land and labour costs, the flight of manufacturing facilities to lower cost locations was met by an effort to make Singapore a regional business hub, focusing on higher value added.[69] With the growth zone, MNCs are encouraged to invest on an integrated basis, with less costly operations being conducted in Johor or Riau islands. Investment promotion is made jointly while the movement of labour, resources, and capital are relatively unhindered. The promotion of and government spending on R&D, along with an expanded pool of skilled workers, is designed to meet competition from the next NIEs in areas of declining or current competitiveness. Singapore is attempting to move into new niches, penetrate certain high technology sectors, retain and add value added activities through the growth

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became the majority of total exports, mostly in electrical machinery, transport equipment, and electronics (disk drives, integrated circuits). The emerging regional, vertical division of labour, driven by FDI and MNC manufacturing relocation helped account for the growing trade in inputs and manufactures from Singapore with Malaysia and Indonesia. Manufactured exports and increased employment were largely produced by large MNC operations in ship repairs, textiles, and the industries listed above. The jobs provided by export oriented production for new entrants to the workforce, after the 1965 split with Malaysia, helped the PAP maintain social control and electoral dominance. Tax incentives, liberal equity ownership rules, an open-transparent current account transaction regime, control of unions, and low wage levels using the 1968 Employment Act and Industrial Relations (amendment) Act also aided MNCs. Thus, political and social stability reduced the danger of production interruption for MNEs and affiliated local firms.

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Singapore attempted to achieve more indigenous technological development and not rely solely on MNC technology transfers. Its postwar economic development has been marked by a fast follower strategy that absorbs and diffuses technology faster than competitors. This helped the island economy to shift from a labour-surplus, entrepot based urban mercantile centre, with a rural regional hinterland, to a regional business hub concentrating on value added services and niche manufacturing. Initial ISI after independence was abandoned as the PAP started the necessary infrastructure projects designed to attract the needed foreign investment for developing a manufacturing base. Success in attracting MNC plants in electronics, shipping and petroleum turned a labour surplus into a shortage as the state continued to fund worker training. Industrial restructuring in the early 1980s was initiated through restrictions on foreign labour and high wage policies. The 1984-85 recession highlighted Singapore's loss of competitiveness and the need to improve productivity. The PAP and EDB encouraged SME growth and technological upgrading in alliance with MNCs. As part of the PAP's aim to make Singapore a developed nation, the emphasis on making Singapore a key regional and international business centre fits into the growth triangle development, with local firms and MNCs encouraged to expand their global and regional operations. Maintaining economic growth will help the PAP thwart electoral discontent as its hegemony is built upon full employment and provision of collective consumption. The success of the GT, along with wider public ownership of GLCs, is supposed to create popular interest in state capitalism, alleviate concerns over foreign labour, and buttress the PAP's regionalisation strategy. Still, the triangle is more like two bilateral relationships than a true three way linkage!

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zone division of labour.[70]

The PAP government, more than Hong Kong, encouraged domestic skill enhancement through strategic partnerships with MNCs, foreign acquisitions, attracting overseas personnel, and greater R&D outlays in sophisticated manufacturing. By 1992, the EDB's incentives for value-added production had enticed a variety of MNCs to establish facilities for synthetic materials, digital technology, software, software, semiconductors, advanced machine tools, and precision devices. In addition to encouraging FDI in other Asia Pacific countries, Singapore recognizes the need to foster indigenous entrepreneurs and venture capital. Alliances or joint ventures between local and foreign firms are seen as essential to exploit opportunities elsewhere.

In contrast to manufacturing, the PAP used its control over the domestic market, financial institutions, and favourable geographic location to foster a strong financial sector, especially in foreign exchange trading, aiming to gain the attendant value added job creation. Singapore's emergence as an international finance centre derived from its tradable services, through improved communications and transportation. Its location, existing human capital, open markets, political stability, and infrastructure also aided its comparative advantage.[71] In 1968, withholding tax was abolished for deposits made by Asian Currency Units in Singapore. Banks were also favourably disposed to Singapore's

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Poh Kam Wong, "Singapore's Technology Strategy," in Simon, 105-110; James Parsonage, *The State and Globalization: Singapore's Growth Triangle strategy* (Brisbane: Murdoch University Asian Research Centre Working Paper #23, February 1994), 8-13; Hadi Soesastro, "ASEAN and APEC: do concentric circles work?" *Pacific Review* 8/3 (1995): 475-93; Michael Borrus, "Regional Architecture of Global Electronics," in Paolo Guerreri and Peter Gourevitch, eds., *New Challenges to International Cooperation*, (San Diego: University of California at San Diego, 1993), 43-73.

71

Huff, 37-40, 334-38, 346-47; Tremewan, 40-41; Rodan, 119-35. Haggard, 25, 27, 30, 33, 42, 48; Deyo, 99-100, 103, 189-190, 183, 185-6, 193, 195, 199-200; Regnier, 100-136. Huff also notes how the PAP used mandatory savings collected through the CPF-Central Provident Fund and the Post Office Savings Bank to increase domestic savings, through worker and firm contributions, and provided a ready source of investment capital for the government's housing and infrastructure projects. By the late 1980s, national savings exceeded gross capital formation, leading to a current account surplus on the balance of payments. The openness to FDI in the domestic economy was balanced by an outflow of national savings via government investments abroad. High savings relied on the public sector, in contrast to Hong Kong, while investment came from both private and public actors. The high savings rate induced by the PAP's use of the CPF and Postal Savings helped lessen inflationary pressure by lowering private sector purchasing power and aided the government's financing of infrastructure, housing, and foreign reserve accumulation. The use of CPF withdrawals to buy subsidized housing helped make home ownership more available, a PAP objective, along with medical care and education expenses.

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open, transparent market, stable government, lack of corruption, and strong currency. The Asian dollar market was assisted by the government sponsorship of a Asian dollar bond market, and later, the futures/options exchange, and fund management. The privatization of some GLCs also aided the Singapore bourse's capitalization and attract external investment for listed firms.[72]

Conclusion

Both Singapore and Hong Kong rely on high technology to improve productivity in light of high labour costs or shortages. The development of these two zones enhances economic integration through a subregional division of labour. Thus, Singapore continues to draw on outside sources for production and technical resources while Hong Kong may have to reconsider its laissez faire ideology in light of competing countries' industrial policies. Improving technical and tertiary education, in telecommunications, biotechnology, and advanced materials, is an indirect way of dealing with a fragmented industrial structure, where many small and large firms are moving part of their operations to China.[73] Decisions regarding production location are no longer primarily driven by cost considerations. Firms determine their locational strategy in order to be close to technology sources, conducive business environs, and major markets as well. For Japanese production in Asia, many critical components are still sourced from Japan as "the development of high technology is facilitating a corporate strategy in which the competitive edge is maintained by concentrating on the R&D activity of critical parts in the home country and by locating

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M. Ramesh, "Economic Globalization and Policy Choices: Singapore," *Governance*, 8/2 (April 1995), 244-5, 248, 251; Rodan, 157-65. From 1965 to 1993, total imports/GDP went from 129% to 155% while total exports/GDP went from 102% to 134%. Domestic exports/GDP went from 26% to 85% in the same period. Net investment commitments in manufacturing from 1973 to 1990 went from 260$ million to 3893$ million, of which the foreign component rose from 224$ million to 3152$ million.

73

O'Connor in Simon, 72-74 and 76; Y.W Sung, 83; Chi Schive, "Taiwan's Emerging Position in the International Division of Labour," 101-21 and Raymond Chang, "Taiwan's Emerging Economic Relations with the PRC," 275-95 in Denis Fred Simon and Michael Kau, eds., *Taiwan- Beyond the Economic Miracle*, (London: ME Sharpe, 1992).

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manufacturing activities in individual places close to individual markets."[74]

Compared with other NIEs, Hong Kong's commodity export composition, manufacturing employment growth, and commodity exports have grown slower, while its small scale, labour intensive manufacturing has largely moved into China to compete in international subcontracting networks. Textiles, primary commodities and raw resources became less important during 1965-89 as electrical machinery and transport equipment had a growing share of exports. This change reflects shifting comparative advantages as the NICs attempt to move up the value-added and technological hierarchy in the regional division of labour. Labour intensive component subcontracting is subcontracted to cheaper production sites in ASEAN and China. The impetus for improvements in value-added exports can also be traced back to the protectionist MFA quotas imposed on textile and apparel output since the 1960s. Restrictions forced manufacturers to improve their product quality and diversify into different niches through the use of (il)legal immigrant labour from China and moving production into SEZs. Electronics component producers also face difficulties in technological upgrading due to their industrial structure, small firm size and fluctuating relations with larger MNCs.[75]

74

Fumio Kodama, "Emerging Trajectory of the Pacific Rim: Concepts, Evidences, and New Schemes," in Simon, 41-42; Lotte Chow, "Tech centre meant to foster industry," *Asian Wall Street Journal*, 8 November 1993; Elaine Chow, "HK tipped as hi-tech wave source in Asia," *South China Morning Post*, 2 May 1995; Hong Kong Technology Centre supplement, *South China Morning Post*, 14 March 1995.

75

Barry Wilkinson, *Labour and Industry in the Asia Pacific*, (Berlin: Walter de Bryter, 1994), 6-8, 13-18, and 20-5; Fukushima in *The New Wave of FDI in Asia*, 25-37. Singapore has constantly sought to upgrade workforce skills and infrastructure in order for indigenous firms to move into higher value added production of computers, microelectronics, and precision tools through tax credits, loans, and industrial estates. Labour intensive, low technology has moved to Batam-Riau and Johore. Hong Kong has limited itself to infrastructure, such as industrial parks, and improved education for indigenous technology development as local firms move into China prior to 1997. Hong Kong, Taiwan, and Singapore responded to the escalating wage, commodity, land prices; slower productivity growth and increased market competition from earlier economic growth by restructuring their economies. The labour intensive footwear, garments, and consumer electronics sectors that fuelled their postwar development are now facing new challenges to their competitiveness. These sectors contribute a declining share to overall output, GDP, employment and are now facing rivalry from lower cost production sites. Labour shortages exacerbated wage increases, intensified internal competition for labour between sectors, and altered the incentives for capital investment. Hong Kong's labour intensive industries faced the prospect of competing with China and ASEAN, where lower wages were complemented by comparative technology levels. Firms are forced to import labour, upgrade labour skills, use modern technology, and/or segment their operations. Labour intensive assembly or processing production is sent offshore to lower cost sites while head office and/or value added functions remain. Export led growth is also balanced off by imports of production inputs and consumer goods as NIE growth is becoming more dependent on consumption, domestic real wages, and investment rates. The rate of import growth is increasing as investment is shifted offshore.

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Chapter Four: China's Economic Reforms and the Greater China Growth Zone

The Republic of China (ROC-Taiwan)-People's Republic of China (PRC)-Hong Kong (HK) growth triangle is also known as a subregional economic zone (SREZ) or natural economic territory (NET). It includes Hong Kong, Shenzhen, the Pearl River Delta of Guangdong province, Macau, and the coast of Fujian province. The Greater China growth zone's genesis can be found in the initiation of economic reforms in China, the 1985 and 1987 Plaza and Louvre accords, export market protectionism, rising domestic production costs, and political reforms in Taiwan. It allows China to reintegrate Hong Kong back into the mainland as a positive example for future cross-straits relations and strengthens ties with Taiwan. Since Deng Xiaopeng began reforming China's economy, Hong Kong's economy has been increasingly integrated with the PRC. The sectoral and spatial shift in manufacturing from textiles and apparel towards electronics in importance is accompanied by factory movements from Hong Kong into mainland SEZs. This zone affects China's cohesion as economic forces simultaneously fragment and integrate provinces with Chinese communities abroad. Thus, China saw "external opening up as the key to modernization and accelerated growth."[76]

In contrast to Hong Kong's liberal policy choice, China was mercantilist because it wanted imported foreign technology and increased export earnings. It extended preferential treatment, such as favourable tax and profit remittances, to foreign and joint venture firms located in the SEZs.[77] China had a vested interest in Hong Kong's stability and growth as a entrepot, source of finance capital, services, and niche manufactures. Hong Kong was the chosen location of foreign businesses for overseeing Southeast Asia

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Shelley Mark and Won Bae Kim, "China and the NIEs in the post-GATT World," in LaCroix et. al, eds., 259.

77 Kleinburg, 53-55, 213-215; Ralph Clough, *Reaching Across the Strait*, (Boulder: Westview Press, 1993), 41-59.

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and China operations. As a free port, it was a shopping attraction for foreigners and there was no immediate alternative to Hong Kong as a financial centre.[78] Given external shocks and changing comparative advantages, Hong Kong has shifted into more capital or technology intensive sectors with zone partners serving as economic hinterlands. Economic ties between the PRC, ROC, and Hong Kong have increased as investment, trade, and production have shifted from the latter to the former. Like Singapore, Taiwan and Hong Kong have moved inefficient, labour-intensive factories to the mainland in response to rising production costs, the attractiveness of the SEZs, and environmental concerns. China, Hong Kong and Taiwan constitute an interlinked set of economies and polities with a common cultural base in their subregional growth zone. (Appendices 1.1 and 1.4)

Various definitions of Greater China (*dazhonghua*), dating back to Imperial China, refer to the rapidly increasing interaction among Chinese societies globally, commercial or cultural ties between ethnic Chinese, and the overseas Chinese (*huaqiao*) throughout East Asia. This transnational Chinese economy is based on economic complementarities and transaction cost-reducing cultural ties between the participants, with China importing capital and technology from Hong Kong and Taiwan in return for its low-cost land and labour. The Southern China zone restores economic ties cut off by the political hostility between Taipei and Beijing. Although Taiwan has interests in Fujian province, Taiwanese investment has also gone to Guangzhou.[79] The complementary relationship between Hong

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Hartland-Thunberg, 110-111 and Overholt, 25-50, 104-40. Entrepot trade is defined as transit trade or transshipments of imports or exports for future reexport after processing. Transshipment is a form of direct trade as goods are sent from the exporting country to a buyer in the importing country, via an entrepot where goods are stored or change mode of transport. These goods do not clear customs and are not counted as part of the entrepot's trade. Imports for reexport are sent to a buyer in the entrepot and the buyer takes legal possession after clearing customs in a form of indirect trade. These imports are processed before final export. Hong Kong and Singapore define processed reexports as those that have been physically treated (packaging, assembling, grading, decorating) while pure reexports are not altered. Unlike transshipped goods, reexports involve higher costs due to extra customs clearance, insurance and finance costs. An entrepot supplies brokerage/intermediation, transport, finance and insurance services for pure reexports (ISIC-international standard industrial classification division 6, 7, and 8 respectively).

79 Gerald Segal, "China's Changing Shape," *Foreign Affairs*, 73/3 (May-June 1994), 48-49 and J.D Wu, 144-146.

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Kong, Guangdong, Fujian, and Taiwan highlights their respective roles in providing food, water, cheap labour, manufacturing, investment capital, technology, and services.[80] China wants to use the SEZs to facilitate economic interaction and eventual reunification, notwithstanding the 1995-96 cross-straits tensions, while Hong Kong sees trade and investment as a way to preserve the territory's prosperity after 1997. Taiwan views closer relations as an economic lever to extract political concessions regarding the use of force, sovereignty recognition, and a tolerable form of loose political unity.[81]

Discussions of a transnational Chinese economy include Hong Kong-Macau, Taiwan, Guangdong, and Fujian, and expand towards Shanghai, all of China, and Southeast Asia's overseas Chinese. Given the political and economic obstacles to formal economic integration between participants, especially Taiwanese and Hong Kong concerns about hollowing out of their industrial bases, economic integration continues informally through trade and investment by foreign and Chinese companies.[82] In Greater China, informal ties within a growth zone can arise from ethnicity or language based affinities, rather than formal institutional interaction between sovereign states. The participants have differing political structures and identities, share common economic interests, but do not agree on a consensus definition of "Greater China", much less their collective future.[83]

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Maria Hsia Chang, "Greater China and the Chinese Global Tribe," *Asian Survey*, 35/10 (October 1995), 955-967. It differs from the Singapore triangle because of its common cultural and historical links between the three entities, along with disparities in population and market size.

81

Harry Harding, "The Concept of Greater China: Themes, Variations, and Reservations," *China Quarterly*, (1993), 660-67 and 678-83; Yoichi Funabashi, Michel Oksenberg, and Harold Weiss, *An Emerging China in a World of Interdependence*, (New York: Trilateral Commission #45, May 1994), 22-25.

82

Harding, 669-71. See also Liang Qinrong, "Qian dian hou change moshi yu Xiang Gang jingji fazhan luxiang," (The store in front, factory in back model and the path for Hong Kong's economic development), *Jingji Daobao* (Economic Reporter), 2 (1993), 49-50; Cheng Chu-Yuan, "Da Zhonghua jingjiquan de xing cheng yu qianjing," (Formation and Prospects of the Greater China Economic Circle), *Zhongguo shibao zhoukan* (China Times Weekly), 12 June 1993, 34-7; Zhong Yuanfan, "Jianli yu gazhan huanan jingjiqu," (Construct a South China economic zone), *Gangao jingji* (Economies of Hong Kong and Macao), 4 (1993), 3-6.

83

Michael Yahuda, "The Foreign Relations of Greater China," *China Quarterly*, (1993), 687-90 and 698-710. Yueh and Ash discount reexports by 25% and 14% margins for China and others respectively. Cross border shipments for processing will inflate trade volume measures and help hide value-added changes as capital and goods are reported in separate entries for customs and financial statistics.

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The closer links fostered between Hong Kong, China and Taiwan are remarkable in terms of trade, investment, and employment. The symbiosis of the Hong Kong and Chinese economies, with the participation of Taiwan, can be seen not only in zonal trade and investment data, but also the changing contribution of manufacturing employment to Hong Kong's GDP over time. From 1980-1997, manufacturing employment fell considerably as firms moved factories into southern China, shifted into service industries, and Hong Kong developed a larger tertiary sector in response to growing business needs. Merchandise trade deficits were compensated by net income for invisible trade in services. Much of the output from this zone still relies on imported factors of production. Outward processing in southern China allowed domestic exports, imports, and reexports to grow rapidly as Taipei's indirect ties with the mainland incorporated protectionist and mercantilist policy elements.[84] (Appendices 1.1 and 1.2)

Historically, Guangdong has been regarded by the government in Beijing as different, in terms of linguistic and social diversity. This tradition of regionalism arose out of distance from northern capitals and political elites. The Guangdong CCP contributed national figures (Yang Shangkun, Ye Jianying, Tao Zhu, and Zhao Ziyang) and also initiated proposals for economic liberalization. Ren Zhongyi (Guangdong CCP secretary 1980-1985, Liang Lingguang (Governor 1983-1985), and Ye Xuanping (Governor 1985-1991) pressed for decentralized decision-making. Guangdong's growth encouraged economic liberalization in the rest of China, solidified its integration with Hong Kong's economy, and spawned large domestic migration from rural/inland to urban/coastal areas.

Measuring reexports can be difficult because they confound trade statistic interpretation. Goods and capital flowing from/to Hong Kong from/to Taiwan or China could be part of a bilateral trade-investment flow but could also be rerouted via a third country. The declining share of Chinese exports retained in Hong Kong reflects the shift to overseas manufactures and the rise of reexports. As Hong Kong shifted labour-intensive, (re)processing operations to Southern China, its domestic exports of producer goods, such as machinery, grew faster than consumer goods exports. Taiwanese exports to the mainland are usually destined for subsidiaries in machinery, transport equipment, and chemical production. Trade integration and outward processing are based on the participants' economic complementarities and highlight Guangdong and Fujian's contribution to China and Hong Kong's overall trade growth.

84

Harding, 674-77; Ho and Kueh, 346-349; Wilkinson, 162-5; Wang Gungwu, "Greater China and the Chinese Overseas," *China Quarterly*, (1993), 926-48; and Gary Silverman, "The Price of Success," *Far Eastern Economic Review*, 6 July 1995, 54-57.

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There have also been Beijing-Guangzhou tensions over revenue sharing and decentralized decision-making.

Growing economic interdependence and integration has helped the participating countries but both Beijing and Taiwan worry about central economic policies being compromised by closer ties between Guangdong-Hong Kong and Fujian-Taiwan.Beijing has had disputes over autonomy and control issues with coastal provinces over taxation revenues and economic privileges. Both the PRC and ROC have been mercantilistic than Hong Kong, which as mostly held to the liberal option. The movement of Hong Kong labour intensive industries to southern China represented a geographic shift in outward processing. Hong Kong-China trade, especially reexports, increased with Hong Kong's reemergence as entrepot. Many of Taiwan's relocated factories send their output abroad or back to Taiwan from Hong Kong. (Appendices 2.3 and 3.2) Although Tiananmen temporarily halted economic reforms *and* repressed political dissent, China continued to decentralize foreign trade and devalue the renminbi in order to pay off its foreign debt.[85]

After Hong Kong, other key investment locations in southern China included Shenzhen, Guangzhou, Xiamen, and Fuzhou, with Taiwanese capital particularly important in the latter two sites. Manufacturing is mainly in plastics, rubber products, electrical appliances, consumer electronics, garments, and footwear. Taiwanese investment in plastic and rubber concentrated in Shenzhen and Guangzhou while garments and footwear clustered in Fuzhou. As an example of the liberal trade option outlined in chapter two, Nike has joint production with Taiwanese capital in Putian, in Fujian, that imports

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85

Given strained PRC-ROC relations, Hong Kong has a comparative advantage and economies of scale in providing intermediation services for a cosmopolitan, bilingual business centre. Singapore has comparable entrepot advantages for Southeast Asia. For companies investing and trading with entrepot partners, their strategic location allows them access to market information and a means to circumvent trade barriers or domestic economic distortions. These contemporary advantages are buttressed by their histories as major ports and geographic locations. When one compares Hong Kong and Chinese bilateral trade data, it is important to remember mainland exports are under invoiced to evade foreign exchange controls, thus understating Hong Kong's share of PRC exports and overstating its imports. Retained import data for Hong Kong is also difficult to accurately measure because imports for future reexport may not be ascertained at the time of port entry. Although the Hong Kong government sees retained imports as the difference between total imports and reexports, ignoring the reexport margin, this understates the value of retained imports by the reexport margin (estimated at above 15% for Chinese goods).

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raw materials through Hong Kong. Managerial, design, and accounting functions are maintained in Hong Kong, although factory managers and equipment are imported from Taiwan, as production is shipped out from the entrepot to the US or other developed markets. This sort of joint venture used local labour but often imported other inputs for export production and to maximize profit margins. In contrast, capital intensive investment from Taiwan went to Shanghai, Beijing and other large cities. Hong Kong and Taiwanese capital helped rural enterprises absorb underutilised labour and develop local industries, aided by local authority provided tax breaks and land provision, thus assisting the CCP's goal of improving peasant living standards. (Appendices 2.1-2.2)[86]

Economic reforms allowed foreign investment in export-oriented, labour intensive light industries and town/village enterprises, where production increased in joint ventures, as an alternative to reforming SOEs. The choice of SEZ locations allowed Guangdong to develop without risking central revenues and remit only a fixed percentage of its revenues to Beijing. This arrangement has engendered criticism by other provinces of Guangdong's advantages and Beijing's generosity. For Hong Kong and Guangdong, a common language or dialects aided economic and cultural integration. The growing trade and investment in the southern China zone has been facilitated by firms taking advantage of changing economic complementarities, along with geographic proximity between a reforming planned economy and a market economy.[87]

Production relocation was driven by the shock of rising domestic costs, pollution controls, and the 1985 Plaza Accord's appreciation of Asian currencies relative to the US

86

Xiangming Chen, "The Spatial Division of Labour and Commodity Chains in the Greater South China Economic Region," in Gereffi and Korzeniewicz, *Commodity Chains and Global Capitalism*, 172-81; Henny Sender, "Sprinting to the Forefront: Yue Yuen is a Taiwanese success in China," *Far Eastern Economic Review*, 1 August 1996, 50-1.

87

David Goodman and Feng Chongyi, "Guangdong-Greater Hong Kong and the new regionalist future," in Goodman and Segal, eds., *China Deconstructs*, 177-84, 186-8, and 190-6. See also K.Y Wong, R.Q Cai, and H.X Chen, "Shenzhen: special experience in development and innovation," in Yeung and Hu, 264-88.

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dollar. Not only were bilateral trade imbalances moved from the NICs to China, the labour force structures in each country also changed as workers in Hong Kong and Taiwan had to shift into other industries while mainland labour found employment in transplanted factories. Agriculture in Guangdong, Shenzhen, and Xiamen declined as the service and industrial sectors grew. The service sector's GDP share increased markedly in Hong Kong while the transfer of Taiwanese labour-intensive light industries to China increased heavy industry's share of output. Macau also hoped to increase its share of economic benefits from Guangdong and Fujian by improving its rail, airport, port, tourist and social infrastructure linking it to the mainland. (Appendices 1.1, 2.3, and 3.2)[88]

Hong Kong and Taiwan investments in Guangdong and Fujian plastics, textiles, toy, and electronic plants employ an estimated 2-4 million people and have made Southern China an integrated economic entity. Hong Kong is both the service hub for Southern China's manufacturing exports and regional headquarters for many firms. With the return of Hong Kong to Chinese rule in 1997, concerns about the Special Administrative Region's (SAR) deindustrialization could be mitigated if local SMEs are flexible, which dominate Hong Kong's industrial structure, in absorbing high technology rapidly as they upgrade into customized, niche markets. Since microprocessors, software, telecommunications and computer design-manufacturing help reduce costs along the value added chain, Hong Kong's transition from low-cost manufacturing export base to niche service centre will depend on both a smooth political transition and success in upgrading post-secondary education.[89]

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Dredging will also enlarge Macau's geographic size for activities other than textile manufacturing and gambling. Exports to Hong Kong are largely textiles and clothing while Macau imports primary and semifinished goods. Up to and past the 1999 return to China, Macau has to upgrade its facilities to become the western Pearl river delta entrepot. Richard Louis Edmonds, "Macau and Greater China," *China Quarterly*, (1993), 884-99. Data drawn from tables on 894 and 896. See also Kerry Dumbaugh, "Hong Kong and China in the 1990s," 858-72; John Frankenstein, "China's Asian Trade," 873-94 in *China's Economic Dilemmas*; and Louise do Rosario, "One Country, Two Roads," *Far Eastern Economic Review*, 6 July 1995, 60-1.

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Winston Liang and Michael Denny, "Upgrading Hong Kong's Technology Base," in Simon, 257-59, 262, 265-70.

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FDI's impact on China's economy fuelled the growth of local autonomy since Dengist reforms began. Economic growth has constrained Beijing's ability to define national development and defend CCP-defined national interests. Incremental, reactive policy and decision making by Beijing, since 1978, reflects intra-party divisions and inter-provincial competition for FDI. Despite the disincentives to market based investment, the growth of local autonomy occurred as Japanese, Taiwanese, Korean and Hong Kong capital were looking for low cost production sites due to rising land costs, labour shortages, and appreciating currencies. Japan is an important source of FDI and FBI, trade partner and loan provider such that Japanese interests are gradually internalized within the Chinese economy. The competition for FDI has meant a proliferation of local level incentives across China that may result in the various subnational competition states becoming more downwardly mobile. The fragmented, transnational nature of regional production has also hindered linkages to the local, host economy. (Appendix 1.1 and 2.2)

Arising from the crisis of late Maoism (socialist autarchy and the neglect of agriculture and light industry), the SEZs were supposed to attract foreign and overseas Chinese investment into modified export processing zones. The SEZs also helped reformers articulate a post-Maoist economic identity that would inspire greater productivity, output, and preserve extant political institutions. Economic change in China has shaped resurgent nationalism and facilitated the extraction of resources from society. A strong economy can aid the ruling elite's effort to construct a favourable collective identity, bolstering their legitimacy and capacity to rule. The postwar success of Hong Kong and Taiwan, liberal in the former and more mercantilist in the latter, also made the formation of a new economic identity necessary if reunification was to become less implausible.

Deng Xiaopeng, Zhao Ziyang, He Yaobang, and Chen Yun were united by a sense of China's economic failure in terms of agricultural output, living standards, and a lack of

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economic initiative due to an inefficient, wasteful state. They recognized that economic reforms were needed to raise living standards and industrial output. Guangdong and Fujian officials argued that their provinces had been neglected in the post-revolution industrialization drive. The ideological debates within the CCP over the SEZs focused on capitalist nature or content, with critics stressing the encroachment of western capitalism upon the socialist mainland. However, SEZ expansion to other coastal areas has altered elite and popular understandings about Chinese economic identity and highlighted the declining importance of socialist ideology. SEZ growth has also problematised the management of the national economy and foreign capital for Beijing, while exacerbating the economic divisions between coastal and inland provinces.

The changes in the mainland economy are paralleled by changes in Hong Kong's political economy as the territorial government became more active in providing a minimal social safety net, the middle class began to press for greater political participation in the legislative council (Legco), and the return to Chinese rule heightened uncertainty about Hong Kong's future, especially after Tiananmen. By the 1970s, there was growing protectionism against its primary exports of labour-intensive manufactures, such as textiles, clothing, toys, and consumer electronics. With rising protectionism, domestic land and labour costs, Hong Kong firms began to diversify into higher value-added production, different market niches, and sought out lower cost production locations. The reforms under Deng allowed labour-intensive manufacturing to move to southern China's open trade zones and pushed Hong Kong industries towards relocating in the mainland and upgrading their products.[90] (Appendix 1.2)

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Hong Kong was becoming less of a manufacturing centre and more of a commercial-financial service hub. Just as Hong Kong based companies moved into China, Chinese state-linked firms have invested in Hong Kong. Hong Kong also provided an attractive base for MNCs and banks eager to enter China or the rest of East Asia, despite problems with regulatory supervision. As the service sector became more important, it contributed more to employment, diversification, and labour mobility for the middle class. Manufacturing employment shifted from textiles (labour intensive) to machinery and electronics (capital intensive). These changes in the local economy made government regulation of financial services imperative and encouraged intervention to address infrastructure bottlenecks hindering manufacturing.

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The "four little tigers" of Guangdong (Zhongshan, Shunde, Dongguan, and Nanhai) are Pearl River delta counties that play a large role in the province's and China's GDP, foreign investment, per capita income, export, and industrial output growth. Since economic reforms began, each of the counties became less agricultural, despite a history of diversified commercial agriculture, and more urbanized as low technology labour intensive industries moved from Hong Kong to the delta. Their lack of raw resources and heavy industry, due to Beijing's designation of the delta as part of China's frontline defence during the Cold War, meant that opposition to economic liberalization was not as severe. The four counties grew at an annual average rate of 15- 17% between 1981-1991. Nanhai's small, collective and village enterprises concentrated in textiles and aluminum processing with a strong private household sector; Shunde's township enterprises focused on consumer durables, household appliances, and are the most export oriented; Zhongshan's state and township firms specialize in washing machines, agricultural and marine produce for export to Hong Kong and Macau. Dongguan has the closest links with Hong Kong and its township and village enterprises (TVEs) are engaged in labour intensive export processing. Beijing's February 1985 decision to extend favourable investment and trade privileges to the whole delta helped attract Hong Kong factories and capital as local authorities cooperated with local and foreign entrepreneurs to access capital, resources, labour, and markets. The counties were close to Hong Kong and had strong overseas Chinese connections. Flexible local governments allowed multiple forms of enterprise ownership, market operations to set prices, wages, and sought out investment for infrastructure improvements. (Appendices 2.2-2.3)[91]

China would benefit more from further economic integration with Hong Kong and

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John Fitzgerald, "Autonomy and Growth in China," *Journal of Contemporary China*, 5/11 (March 1996), 7-21; Weixing Hu, "China and Asian Regionalism," ibid., 44-56; Lily Ling, "A post-colonial analysis of China's integration into Asian corporatism," *Review of International Political Economy*, 3/1 (Spring 1996), 9-17. Other delta counties include Conghua, Zengcheng, Shenzhen, Zhuhai, Jiangmen, Panyu, Hua and Guangzhou.

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Taiwan because of complementary factor endowments. ROC indirect exports to China increased mostly in basic manufactures, machinery or transport equipment, and chemicals.[92] More recently, foreign investors are expanding their investments into distribution and production for the domestic market. But Beijing is also concerned that growth zones reflect and promote an unequal, vertical and horizontal division of labour, with Japan and the NIEs at the core. Although both Hong Kong and Singapore are the core cities in their hinterland subregions, the Southern China zone is more advanced in its economic integration and larger in terms of population and investment. The Hong Kong dollar circulates more freely as an alternate currency in Southern China than the Singapore dollar in JSR. Most Hong Kong and Taiwanese firms that invested on the mainland are SMEs focused on low value-added manufacturing and assembly in textiles, consumer electronics, footwear and toys. Inputs and semifinished goods are sent in from Hong Kong and re-exported back through to other markets.[93] (Appendix 1.3, 3.1-3.2)

China's reforms facilitated the liberal option by allowing Hong Kong firms to offset rising labour costs and export market protectionism through the dispersal of production into coastal open cities and SEZs. The linkage between Hong Kong and Southern China has helped local industries expand across borders. It has aided industrial restructuring as firms enlarge output and production scale. Manufacturing in Hong Kong has shifted to higher value-added areas while labour-intensive production or assembly moved into

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J.D Wu, 127-130 and 132-136. See also Y.C Jao and C.K Leung, *China's Special Economic Zones*, (Hong Kong: Oxford University Press, 1986), 8-10 and David Wall, "SEZs and Industrialization in China," in R. Adhikari, ed., *Industry and Trade Policy Reform in Developing Countries*, (Manchester: Manchester University Press, 1992), 198-219.

93

C. Fred Bergsten and Edward Graham, *Towards an Asia Pacific Investment Code: Issues and Options*, (Washington, DC: Institute for International Economics, 1994), 3 cited in Lavergne, fn.34, 29 and 43. It is important to remember that much of the higher FDI flow into China is comprised of investment from domestic China firms that send their money offshore to gain the preferential treatment available to foreign investors. If they are not burying their assets offshore, such investments can be channelled through Hong Kong intermediaries. If this "round-trip" investment was quantified, the value of Hong Kong-China investment could be more accurately gauged.

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Guangdong and Fujian.[94] Cheaper land and labour in Guangdong has eased Hong Kong's adjustment burden as the latter concentrates on commercial-managerial services, capital-intensive goods, and continues to be the entrepot (transshipment point for exports-imports) for the sub-region. Hong Kong has become the metropolis or "Front Shop" (*giandian*) while Guangdong is the hinterland or "Back Factory" (*houchang*). HK DFI has also brought into Guangdong, especially Shenzhen, and Fujian the experience of dealing with a market economy and attracting further investments, especially from Taiwan. The influx of HK factories has altered the industrial structure of the metropolis, made both HK and Guangdong interdependent and more competitive, while the local acceptance of HK dollars has provided an alternative medium of exchange to the renminbi. Guangdong's industrialization, then, can be traced to the large amounts of HK DFI devoted to joint-ventures, local rural enterprises, and physical infrastructure. Moreover, Hong Kong has integrated Guangdong's Pearl River Delta to transnational production and trade.[95]

Hong Kong and Guangzhou are at the pinnacle of the sub-regional urban hierarchy, with each city having a niche in the division of labour, while the former continues to be the meeting point for information, negotiation, transactions, and demonstrates how foreign investors should deal with China. 82% of Guangdong's trade is with Hong Kong and exports are 18% of provincial GDP. Both Guangdong and Fujian are coastal provinces highly dependent on one trade partner as the former's trade with Hong Kong increased from 3.962$US billion in 1987 to 8.709US$ billion in 1990, while the latter's trade with Hong Kong increased from 374$US million to 1.057$US billion that

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Alvin So argues that Taiwan's democratic transition and industrial restructuring allowed Taiwanese business to push the KMT for a pro-Mainland investment policy. Also, Hong Kong's limited democratic reforms after the 1984 Sino-UK Joint Declaration, the emergence of middle-class pressure for regulatory-welfare reforms, the development of a Hong Kong identity, and anti-Beijing sentiment after Tiananmen made cross-border investments more attractive. See "Determinants of Direct Investment in China," in LaCroix et, al, eds., 95-111.

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Kwok in LaCroix et. al, eds., 83-85 and D.K.Y Chu, "The Special Economic Zones and the Problem of Territorial Containment," in Yao and Leung, 21-37.

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same period.[96] In 1990, 55% of Hong Kong's imports from China came from Fujian and Guangdong. By 1992, 44% and 25% of Chinese exports and imports respectively passed through Hong Kong. "The power of Hong Kong also derives from the fact that it is essential to the growth of southern China, and growth [there] is essential to the country at large. Without this growth, the legitimacy of the Communist Party in Beijing is at risk."[97] (Appendices 1.4, 2.1-2.3)

Recent Chinese investment in Hong Kong has been in trading, financial services, transportation, and real estate. By supporting Hong Kong markets in these sectors, the CCP is using investment as a mercantilist policy tool to further post-transition political stability. The small level of Chinese FDI in Hong Kong manufacturing is located in transport equipment, clothing, textiles, and electronics production in joint ventures between listed Hong Kong firms and state-owned corporations. Chinese investors look to Hong Kong's comparative advantages in R&D, technology, training and trading services while Hong Kong manufacturers invested in China because of low wage costs, government sponsored incentives, abundant unskilled labour, geographic-cultural-linguistic proximity, and the large domestic market. Non-manufacturing companies invested in China to service their customers in China, access cheap skilled labour, and escape Hong Kong's saturated market. Mainland Chinese investors also rechanneled their

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Kwok in LaCroix et. al, eds., 85-89; Gerald Segal, *China Changes Shape: Regionalism and Foreign Policy*, (London: Adelphi Paper #287, March 1994), 18-19 and 35-43; Plummer and Montes cite Chinese data showing DFI increasing from US$5 billion in 1991 to US$11 billion in 1992. DFI approvals in 1993 reached US$111 billion while the number of foreign-funded firms jumped to 83,265, up from US$7494 billion in 1992. Hong Kong, Japan, and the US are the three largest investors in China, particularly in Guangdong. Hong Kong increased from US$956 million in 1985 to US$1.9 billion in 1990. Japan's DFI went from US$315 million (1985) to US$503.4 million (1990). American DFI in 1985 stood at US$357.2 million (1985) to US$456 million (1990). Large amounts of DFI into China came from places where there are significant Overseas Chinese communities that want to invest solely or in joint-ventures with MNCs. From 1982 to 1992, China and Hong Kong became the seventh and sixth largest export destinations for Taiwan while Hong Kong became the largest exporter to China.

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Segal, *China Changes Shape*, 40. With the relocation of manufacturing to China in many industries, restructuring has been hard on workers laid of as they must readjust to service sector employment and learn new skills. Hong Kong-based functions shift from manufacturing to value added design, marketing, and management as parent firms maintain intrafirm ties to their subsidiaries. The low level of technology transfer from Hong Kong to China may also produce technology stagnation in the former as technical progress is not stimulated. For example, Beijing eliminated tax and tariff allowances, on 1 April 1996, on imported capital equipment to encourage capital intensive infrastructure projects as part of its overall mercantilist policy.

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funds back to the mainland via Hong Kong to diversify their portfolio, raise capital, and develop a external network of connections through Hong Kong. Just as mainland Chinese investors had to adapt to a different legal, institutional, and work environment in Hong Kong, Hong Kong investors had to deal with high labour and management turnover rates, competition from other foreign or state firms for staff, inadequate legal regulations, and poor infrastructure.(Appendices 1.1-1.3)

With the surge in PRC investment in Hong Kong since 1989, the local economy witnessed an increase in Chinese influence in banking, listed companies, and unlisted firms. PRC investment in Hong Kong attempts to increase technology transfers, attract more external investments, and contribute to the stability of Hong Kong. From 1979-1992, the four largest mainland investors were the Bank of China, China Resources, China Merchants International and China Travel Services and held monopolies on trade permits. Economic reforms also led firms from Guangdong, Fujian, and other coastal cities to set up subsidiaries in Hong Kong. The influx of PRC firms was met by the increased interest of Hong Kong investors in China as high domestic savings were funnelled into the bourse. Besides the stock market, PRC firms also invested in the property market and securities to gain further financial resources.[98]

Hong Kong thus receives a value added margin in the merchandise and services provided to China. The relocation of declining industries from Hong Kong and Taiwan has boosted employment and income in Fujian and Guangdong, while the former restructured into value added manufacturing and services as China's leading entrepot. Guangdong has become the richest province, in terms of per capita GDP, and the leading recipient of FDI, with the Pearl River delta as the engine of growth. As Guangdong and Fujian have become export processing platforms and domestic market production sites for Hong Kong and

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Hing Lin Chan, "Chinese Investment in Hong Kong," *Asian Survey*, 35/10, (October 1995): 941-46; Duncan Hughes, "Austerity Measures hit HK trade with China," *South China Morning Post*, 19 August 1994.

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Taiwan, a similar process is occurring for Shandong and Liaoning provinces in the northeast with Korean and Japanese investments. Market access would be traded for technology transfers, capital, and management skills (*yi shichang huanjishu; yi shichange huan zijin*) in order to catch up industrially, although internal disparities between provinces exacerbate societal and inter-governmental tensions over unequal economic benefits. (Appendices 1.4, 2.3 and 5.1)[99]

China's economic growth has been in labour intensive, technologically undemanding processing or assembly operations because of the transplant of light manufacturing (foodstuffs, textiles, apparel) from Hong Kong and Taiwan to Guangdong and Fujian. China's future industrialization will depend, partly, on market access abroad and product line development domestically because many factories in the growth zone's China segment rely on filling MFA quotas. Hong Kong's share of Chinese imports is high in textiles, plastics and electrical machinery, and miscellaneous manufactures (SITC 65, 72, and 89) as China imported these items more after economic liberalization began and Hong Kong firms moved to the mainland.[100] In addition to cost considerations, Hong Kong textile firms took advantage of existing GSP preferences and MFA quotas to shift labour intensive knitting to China while retaining dyeing, finishing, marketing and sales in Hong Kong. Retained imports of foodstuffs, fuels, textiles, machinery, and clothing apparel grew in the 1980s, with many such imports as inputs for further processing in Hong Kong. For domestic exports from Hong Kong to China, components and supplies

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Subregional growth triangles are also known as economic circles (jingjiquan) or a loose form of multilateral economic transnationalism based on a division of labour. See also Zhejiang Institute on Asia Pacific Studies, *Shijie Jingji Quyi Jituanhua Yu Yatai Jingji*, (Regionalisation of the world economy and Asia Pacific economic cooperation), (Beijing: Shishi Chubanshe, 1992); Liang Zhanpin, ed., *Huantai Diqu Jingji Keji Hezuo Jingguan* (the landscape of economic and technological cooperation in the Pacific Rim), (Beijing: Kexuejishu Wenxian Chubanshe, 1993) and Han Zhenshe, ed., *Yatai Jingji Fazhan Qushi Yu Quyu Hezuo*, (Asia Pacific economic development trends and regional cooperation), (Beijing: Zhongguo Wujia Chubanshe, 1992).

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Proximity and appropriate technology level are also important for these factories. The growing share, during the 1980s, of imports for reexport from China are in textiles, apparel and machinery, with similar increases in manufactured reexports to China. The trans-shipment of goods from China consist of textiles, foodstuffs, metal manufactures, and minerals while goods trans-shipped to China include chemicals, fertilizer, plastics, iron, steel, cement, and various manufactures.

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to mainland processing and assembly operations are in the SITC items listed above as China's heavy industries are not well suited to Guangdong and Fujian's light manufacturing industries.[101] (Appendix 1.4)

Japan, the US, and Taiwan supplied more of Hong Kong's retained imports than China. Chinese statistics regard Hong Kong as China's largest market because reexports via Hong Kong are disregarded, although Japan and the US are now more important. Hong Kong reexports are counted as imports by Chinese data. Reexports are a majority of the total Hong Kong exports to China. Smuggling across the border also complicates data estimation, with underestimation of Hong Kong, PRC, and ROC exports, GDP, and trade surplus or deficit. Transshipped goods between China and Taiwan are not *all* reexported. Such items are regarded as part of Hong Kong trade and are not recorded. Hong Kong is listed as the destination on the bill of lading prior to departure but the documents are switched en route and the cargo are transshipped via Hong Kong to the mainland. Customs is not cleared because the products have been relabelled for mainland buyers. More indirect trade strengthened the importance of bilateral ties for both Taiwan and China. (Appendices 1.3-1.4)[102]

Technology transfer from Hong Kong to China has not embodied new hardware as mature production machinery, appropriate to local supplies of workers and resources, is

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Originally, MFA restrictions on developing country textile-clothing exports were the result of bilateral negotiations between developed and developing countries, renewed every few years despite their incompatibility with GATT articles I and 24. They were intended to provide temporary protection or adjustment relief for domestic producers in developed states. Since their inception, MFA quotas have broadened in product and country coverage while quota growth has been limited. MFA restraints have led to firms upgrading products, diversifying export markets, and moving production sites (quota hopping). Developed MFA members include: Austria, Canada, the EU, Finland, Japan, Norway, Sweden, Switzerland, and the US. Australia and New Zealand rely on GATT Article 19 measures, global import quotas, instead. For this dissertation, developing MFA members of interest include: Malaysia, Hong Kong, Singapore, Indonesia, and China. MFA I to V lasted from January 1974-December 1977, January 1978-December 1981, January 1982-July 1986, and August 1986-July 1991 respectively. The 1995 Marrakesh Accord, completing the Uruguay Round, instituted the phaseout of the MFA.

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ROC direct exports to China are defined as ROC exports transshipped or reexported from Hong Kong to China. ROC total exports to China is the sum of exports transshipped from Hong Kong to China. Yun Wing Sung, "Trade and Industry," in Joseph Cheng and Paul Kwong, eds., *The Other Hong Kong Report 1992*, (Hong Kong: Chinese University of Hong Kong Press, 1993), 179-93; Clifford Tan, *Growth Triangles from Several Angles: an NIE perspective*, Hong Kong University School of Economics, Discussion Paper #130, April 1992, 10-26.

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sent to the mainland. More skill transfers occur in intracompany workforce training of the local subsidiary staff and extensive subcontracting networks. Chinese enterprises in Hong Kong also use the territory as a training base for local and expatriate employees. The technology used must be able to utilize local workers and materials to minimize foreign exchange purchases of imports, help generate long-term profits and spillover-linkages, and is approved or preferred by the government for incentive schemes. From 1986 onwards, equity joint ventures and wholly owned enterprises became more popular, for Hong Kong investors, than contractual joint ventures as taxes were lower for the first two types. Restrictions on domestic sales for these two types of companies were eased in 1991.

Thus, the Southern China growth zone's origins can be traced back to the start of Chinese economic reforms, the impact of the Plaza and Louvre Accords, and protectionism in Hong Kong and Taiwan's main export markets. Manufacturing in Hong Kong and Taiwan became more expensive due to pollution concerns, rising land, labour, and foreign exchange costs. China's mercantilistic, modernization drive required capital and technology; both were provided in large part by overseas Chinese in Hong Kong and Taiwan. In turn, the latter were able to use lower cost mainland land and labour to relocate their declining, labour intensive sectors to Guangdong and Fujian provinces. Hong Kong pursued a more liberal, neoclassical policy while Taiwan had more mercantilist concerns regarding national and economic security. These transactions were expedited by linguistic and cultural ties between host governments and investing companies, although some protectionist barriers impeding cross-straits ties remained. External investment in this growth zone meant increased higher mainland living standards, more employment in the southern Chinese provinces, economic restructuring in Hong Kong and Taiwan, and closer economic interdependence between Hong Kong, Taiwan and mainland China.

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Chapter Five: Hong Kong's Changing Production Profile and the Pearl River Delta's Growth

Many of the products produced by Hong Kong's electronics industry (radios, televisions, calculators, telephones, modems, photocopiers, circuit boards, LCDs, and semiconductors) are assembled in the Pearl River delta where labour and land costs are lower. Most investors in this area focus on manufacturing with proximity to Hong Kong being very important. Investment size ranged from 10 to 40HK$ million, well above the overall investment average for Hong Kong firms. The labour intensive nature of electronics investment meant large numbers of local workers in transplanted factories. Most production is sent abroad (US, China, Singapore, Germany, and Taiwan) because of quotas on domestic sales, lack of retail channels, dearth of market information, and ambiguous regulations. Manufacturers hope that future liberalization will lead to greater domestic demand. Similarly, the toy industry (plastic, wood, electronic, stuffed) has moved labour intensive assembly operations to Guangdong's Pearl River delta in order to remain price competitive, although manufacturers must upgrade quality to ISO 9000 product safety standards. Investment ranged from 1 to 18HK$ million but usually in smaller factories with less than 500 employees, unlike electronics. Domestic sales faces the same problems outlined above with production geared for export. In contrast, rules of origin have lowered the amount of China investment undertaken by the apparel industry. Average investment of 11.3HK$ million is below the overall average of 18HK$ million, with a range of 1 to 20HK$ million. Like the plastics industry, preferred locations included the Pear River delta with factories employing less than 500 workers.[103]

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Hong Kong Federation of Industries, *Investment in China 1993: Survey of HKFI Members*, (Hong Kong: HKFI, 1994), 11-31, 56-90. Investment and employment totals varies by industry and firm size; Victor Mok, "Trade and Industry," in *The Other Hong Kong Report 1990*, (Hong Kong: Chinese University of Hong Kong, 1991), 242-57; Yin Ping Ho, "Trade and Industry," in *The Other Hong Kong Report 1991*, (Hong Kong: Chinese University of Hong Kong, 1992), 172-201; Li Kui Wai and Kenneth Lo, "Trade and Industry," in *The Other Hong Kong Report 1993*, (Hong Kong: Chinese University of Hong Kong, 1994), 112-24.

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With the liberal option, Hong Kong's electronics industry moved manufacturing and assembly operations to the Pearl River Delta in Guangdong province after China's Open Door reforms allowed an outlet for companies to escape rising production costs. In a 1993-1994 industry survey, 844 electronic firms with Hong Kong backing, accounting for 80% of Guangdong electronic enterprises, produced 92% of Guangdong's electronic production. Electronics manufacturing' decline in Hong Kong has been paralleled by growing Pearl River Delta (PRD) production in computers peripherals, component parts, consumer electronics, and telecommunications. Domestic production in Hong Kong decreased while reexports and imports from China increased as firms sought lower cost sites nearby in order to enhance profitability. Hong Kong electronics firms focused on anticipating new consumer trends and low cost production, due to proximity to China, more than R&D. Many small firms relied on cost competitiveness rather than niche advantages or wide-ranging capabilities. To maintain competitiveness, they minimised costs, developed profitable niches, strengthened innovation, improved product range, enhanced market intelligence, and supporting infrastructure with the cooperation of the Hong Kong authorities. The Hong Kong footwear industry also faced similar challenges to its survival and must adapt in an analogous manner.[104] The highest Hong Kong investment rates were recorded in leather goods, electronics, watches and clocks, electrical optical products, and toys. Lowest were chemicals, pharmaceuticals, textiles, and foodstuffs. Other industries with lower investment levels in China require greater technology or

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Hong Kong Government Industry Department, *Report on Techno-Economic and Market Research Study on Hong Kong's Electronics Industry*, (Hong Kong: Government Printing Office, 1994), ii-xxiv, 7-21, 57, 76, 99, 127, 200, 226-29, 238-52, 276-84, 288-306. A product life cycle consists of proprietary, transition, consolidation, and mature phases. Industrial policy in Hong Kong is less directed and specifically targeted than in Singapore, Japan, Taiwan, and South Korea. See also ibid., *1991 Survey of Overseas Investment in Hong Kong's Manufacturing Industries*, (Hong Kong: Government Printing Office, 1991), 22-29, 33-41, 45-47, 57-59, 64-65, 75-76 and *Technoeconomic and Market Research Study of Hong Kong's Textiles and Clothing Industry*, (Hong Kong: Government Printing Office, 1991), 1-32.

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capital investment than China's business environment can provide. (Appendix 2.1)[105]

Hong Kong's textiles and clothing industries (spinning, weaving, knit fabrics) have also moved operations to the mainland because of rising domestic production costs, greater competition from other countries, and trade frictions arising from MFA quota utilization. Hong Kong textiles and apparel factories must process a certain proportion of production to qualify for MFA quotas, despite occasional illegal use of China's MFA quotas. Mass production of knitted and non-knitted fabrics occurs in the Pearl River delta while upscale garments are made in Hong Kong. As of 1 July 1996, US rules of origin for textiles and apparel changed such that a more ambiguous criterion is used for determining country of origin. US domestic textile and apparel producers pressured their government to alter existing MFA quota regulations because foreign competitors were shifting part of their production process to countries with underutilised quota allowances. Instead of where the fabric was cut deciding country of origin, where the apparel is "wholly assembled" as a finished good is now the deciding element. If more than one location is involved, where the most important assembly occurred will designate that country as its origin. Manufacturers who cut fabric outside Hong Kong and assemble in a third location will not have their products deemed of Hong Kong origin. The new US regulations may accelerate textile and apparel production's shift offshore. The ambiguous new rules could complicate rule interpretation and cause future bilateral trade friction.[106]

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In a June 1993 survey of Hong Kong Federation of Industries members' investment in China, respondents stated that they were drawn to the mainland because of abundant, low cost, trainable labour. The lowering of Chinese tariffs on 1 April 1996 helped foreign invested firms engaged in production for export processing. The cuts are deepest for advanced technology, energy, transport, infrastructure, and raw material sectors, in line with China's industrial policy. Increased imports after tariff reductions, via Hong Kong, will increase its entrepot function. Mainland bourses are still developing and investment in services are concentrated in retailing and tourism. Most Hong Kong investment is located in Guangdong province (Dongguan, Shenzhen, Guangzhou, and Zhongshan), Fujian, then Shanghai and Beijing more recently. Locations in the Pearl River Delta are accessible to Hong Kong which facilitates management control and transport savings (cost and time). Geographic distance is aided by cultural-linguistic and social-family ties. Despite rising wages and land costs since economic reforms began, the labour supply has grown with migrants from other provinces. Guangdong's status as a wealthy province also makes it an domestic market.

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Hong Kong Trade Development Council, "Implications of China's Import Tariff Reduction," *Trade Watch*, (March 1996), 1-9; ibid., "New US Rules of Origin for Textiles and Apparel," *Trade Watch*, (June 1996), 1-5. The UK was the first to apply postwar VERs to Hong Kong cotton textile exports in 1959. MFA quotas establish quotas on textile and clothing exports from developing to developed

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Continued survival requires that Hong Kong firms be capable of providing output for global niche markets. According to a 1991-1992 industry survey, Hong Kong based firms have to develop individual market strategies (cost, service or product focus), select and create linkages to an appropriate customer base, foster retail-design service and production quality capabilities, upgrade manufacturing facilities in Hong Kong and/or the PRD, and continue to participate in global sourcing networks. Market research analysis, product R&D, employee training-skill upgrading, and entry into production alliances could be aided by support from the Trade Development Council, Productivity Council, Industry Department and other relevant agencies. Manufacturing improvements might include more utilization of imported labour, information technology for computer aided design and manufacturing (CAD-CAM), deregulation of manufacturing relocation to industrial estates, streamlined outward processing licensing-certification procedures for cotton yarns and woven clothing. All Hong Kong companies have to develop new products, capitalize on market proximity, and foster consistent, value-added quality improvements. They have to employ a combination of new production technologies, lower cost labour, epicentre services, global-regional sourcing, forward linkages to new markets and develop new brands to maintain viability.[107] (Appendix 2.2)

Hong Kong industries also responded to adverse domestic and international economic conditions by subcontracting assembly and processing operations to the

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countries and became operative in 1974, with renewals in 1978, 1982, 1986, 1991, and 1993-94. This form of managed trade violates the GATT principle of non-discrimination, suppresses the exports of competitive suppliers, provides new entrants with few quota opportunities, and artificially creates scarcity to raise prices in restricted markets. They are to be phased out starting 1 January 1995, over ten years, under the Uruguay Round agreement on textiles and clothing. The GATT/WTO regime will cover up to 16 percent of the total volume of 1990 textile-clothing imports of each signatory initially. Another 17 percent is covered after three years and a further 18 percent after four. After ten years, the remaining 49 percent of trade will be liberalized. Quota growth rates are also raised by 16 percent initially, 25 percent afterwards and 27 percent in the last stage. This will encourage both manufacturing relocation to China and upgrading in Hong Kong, with a concomitant increase in reexports and gradual decline in overall domestic exports.

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Hong Kong Government Industry Department, *Techno-Economic and Market Research Study of Hong Kong's Textiles and Clothing Industries*, (Hong Kong: Government Printing Office, 1992), 3-33; ibid., *1993 Survey of Overseas Investment in Hong Kong's Manufacturing Industries*, (Hong Kong: Government Printing Office, 1993), 11-21, 23-30, 35-43, 58-59, 64-65, 72-73, 78-79; Hong Kong Trade Development Council, *Profiles of Hong Kong's Major Industries*, (Hong Kong: HKTDC, November 1994), 1-7, 25-46, 114-116; ibid., *Trade Developments: Uruguay Round Impact on Hong Kong textiles and clothing industries*, (Hong Kong: HKTDC, December 1994), 1-15.

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mainland. Their advantage lies not in moving up to applied production technology so much as their flexibility to adapt to changing conditions. Hong Kong firms remain subcontractors and service providers in regional and global networks of manufacturing contracting. They are linked to the international subcontracting system of MNCs and utilize these connections to restructure production in light of market changes. Many industries are still labour intensive despite market signals for technological upgrading. Economic reforms and returning entrepot trade encouraged firms, usually small local companies, to relocate to China rather than upgrade facilities. By the 1980s, higher land costs and a labour shortage combined with real and nominal average daily wage increases meant the number of garment and electronics establishments and workers declined. The latter industry relocated to China while the former retained production in Hong Kong because of MFA quotas and rules of origins.

Garment makers benefit from this kind of non-tariff barrier (NTB) as export market shares are considered more stable. The lack of technology application in garment making requires flexible production as most firms do not have required quotas, mass orders, sufficient retail outlets, or full scale automation. This flexibility is accompanied by sensitivity to retail market conditions in importing markets. To meet fluctuating demand conditions, Hong Kong garment makers manage their risk through subcontracting networks based on trust and connections. In contrast, electronics producers moved labour intensive component assembly to Guangdong and Fujian. As original equipment manufacturer (OEM) subcontractors, their limited R&D focused on product modification more than technology development. Smaller firms are adaptable but have limited capital and cannot easily switch to more knowledge intensive production. The Hong Kong government's longstanding non-intervention policy, outside of education, housing, and infrastructure provision, made low wage labour intensive production possible but lacked

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specific industrial worker training and industrial finance. (Appendix 2.3)[108]

Compared to garment manufacturers, electronics firms have a higher foreign capital content, due to FDI, and are less reliant on trading houses for orders because of overseas orders, although both subcontract for larger firms. Continued growth is dependent more upon responding to shifting economic conditions, through relocation or shopfloor reorganization, more than adopting high technology or value added production. Garment makers do not utilize much automated or computer aided design in assembly processes because such production requires large orders for economies of scale and is not conducive to small batch orders. The smallest remain in Hong Kong due to domestic niche markets, MFA quota restrictions, and rules of origin affecting Hong Kong. Garment manufacturers focus on flexible production for volatile export markets, unless they have export quotas, mass production orders, sufficient retail outlets, adopt full scale automation, and shift to offshore production. Strong commercial ties to global-regional subcontracting networks assist firms' responses to market demands. Many of these interdependent producers compete with each other but also cooperate, based on personal connections and trust.

In contrast, both large and small electronics firms have largely moved to the Pearl River delta, although onshore sites are not necessarily the same size as the parent. Relocation reduced Hong Kong based assembly processes and turned the local plant into a

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Michael Hobday, 7-8, 162-84; Tai Lok Liu and Samuel Chiu, "Interpreting Industrial Restructuring in Hong Kong," in Jayant Lele, ed., *Unravelling the Asian Miracle*, (Aldershot: Dartmouth Publishing, 1996), 41-59. Hong Kong's postwar development has been attributed to a government policy of positive non-interventionism, entrepreneurial immigrants, and an industrious, flexible laborforce. The international economy also stimulated export led industrialization as postwar restructuring in developed countries led to a spatial relocation of light, labour intensive manufacturing. Hong Kong was one site in a export processing and assembly subcontracting network in a changing international division of labour. From the 1950s to the 1970s, garments was a top contributor to Hong Kong's gross output, domestic exports, and employment. Electronics did not grow until the 1970s but became a leading industry at that time. From 1988-91, both garments and electronics declined in terms of growth, employment, and establishments because labour costs rose (average daily wages in manufacturing rose from HK$73 in 1982 to HK$184 by 1990), land costs increased, and the labour surplus declined as low wages discouraged recruitment of young workers. Restructuring was aided in the 1980s by China's Open Door policy as entrepot trade revived, some local manufacturing moved into mainland SEZs, and influxes of (il)legal migrants moving to Hong Kong helped labour intensive industries. The predominantly small, local enterprises are export oriented and rely on subcontracting networks as OEM producers. Garment manufacturers are flexible producers of quality clothing, responsive to changing market demands. Electronics firms produce for niche markets and, like garment firms, have not modernized production technology as labour intensive assembly relocated to China.

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product modification R&D centre for some, not all, companies. Others focus on trading, instead of R&D, and have out sourced production. Many medium sized firms also relocated to expand production capacity and lower costs. The move out of manufacturing or offshore has been affected by the dearth of industry specific labour training in Hong Kong. Garment and electronics firms restructure on their own as the colonial state does not aid a particular industry, given its philosophical orientation and limited financial resources. Nor does Hong Kong have an active partnership between finance and industry or industrial bank for long-term capital lending to SMEs, unlike other Asian developed economies.[109]

Higher value added R&D and export production will be necessary for computer firms to respond to shorter product life cycles and external competition, possibly through computer software for business applications. While R&D is conducted mostly in Hong Kong, future research efforts could capitalize on China's large research base for new product design and innovation. The Hong Kong government also created an Industry and Technology Development Council in 1992 and set up industrial estates for advanced technology in Tai Po, Yuen Long, and Tseung Kwan O. Low value added clothing and textile assembly was transferred to China while computer-automated design, manufacturing, marketing, design, and management functions were retained in Hong Kong. MFA quotas for textiles also required considerable production or processing in the

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During 1991-1994, the leading external investors in Hong Kong manufacturing were Japan, the US, the UK, China and Holland. The majority of investments were concentrated in mostly wholly owned subsidiaries, both large and medium sized, in textiles, clothing, electronics, chemicals, and electrical product ventures. US, Japanese, Dutch, and British investment capital was spent on machinery, equipment, land, and buildings respectively, while mainland Chinese investment focused on foodstuffs, transport equipment, and textiles-clothing. Technology transfers were most common in chemical, electronics, and electrical subsidiaries and joint ventures. Recent investments are concentrated in infrastructure projects, financial services, and real estate development. Firms were also concerned about post-1997 political instability, high land-labour costs, employee turnover, and shortage of skilled staff. Investment incentives included lower production costs, geographic proximity and cultural-linguistic similarity. Electronics, chemicals, and electrical product firms were most interested in expanding production into China. Most of the manufacturing investment by Hong Kong firms in China were in wholly owned companies, joint ventures, and outward processing respectively. The bulk of production, in toys, electronics, electrical-optical products, and leather-rubber goods, is exported abroad and the factories are located mostly in Shenzhen, Dongguan, Guangzhou, and Zhongshan respectively in order to escape declining operational conditions in Hong Kong. Since economic reforms began, China's domestic market has become more attractive for domestic sales as trade liberalization continues with China's application to join the WTO.

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territory and delayed the shift to the mainland until the Uruguay Round phase out of restrictions is completed. Finally, surveyed firms were concerned about China's political stability, productivity, taxes, corruption, inflation, administrative efficiency, and labour contracts. They moved to the mainland to escape rising domestic costs and US GSP termination to utilize cheaper land and labour.

Along with electronics, electrical products, clothing, telecommunications equipment, and textiles, the metals, machinery, toys, and watch/clock industries invested in China operations. Average firm investments range from 5-20HK$ million for electronics and toys, 10-41HK$ million in textiles, 3-10HK$ million in clothing, and less than 5HK$ million in watches-clocks. Electronics, clothing, toys, and textile factories are concentrated in Shenzhen, Dongguan, Guangzhou, and Zhongshan. Metal and machinery are mostly in Shenzhen, Dongguan, and Shanghai. Domestic textile, clothing, metal products, toys, electronic and electrical goods exports also declined as production shifted geographically, although overall exports to the US, China, Singapore, Taiwan, Japan, Germany, UK increased during 1990-1994. The effect on the machinery and watch-clock industries are less marked. The OEM production of consumer electronics relies on flexible, timely production in response to changing economic conditions. Both consumer electronics and computer parts manufacturers concentrate sales, packaging, distribution, quality control, and limited production in Hong Kong with low value components sourced in China. Advanced components, such as CPUs, disk drives, integrated circuits, are imported from abroad by MNC affiliates and small local firms.[110]

The original division of labour in the delta between the SEZs, Guangzhou, and

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Hong Kong Government Industry Department, *1994 Survey of External Investment in Hong Kong's Manufacturing*, (Hong Kong: Government Printing Office, 1994), 9-15, 19-27, 29-37, 51-55, 64-65; Federation of Hong Kong Industries, *Investment in China*, (Hong Kong: Federation of Hong Kong Industries Research Division, 1995), x-xii, 1-2, 7-13, 19-24, 29-31, 37-74. Federation of Hong Kong Industries surveys from 1990-94 traced the nature and destinations of Hong Kong investment into China. Most labour intensive assembly involved the electronics, toy, plastics, and leather good industries (wholly owned and equity joint ventures) concentrated in Shenzhen, Dongguan, Guangzhou, and Zhongshan. More recent sites include Shanghai, Zhejiang, and Fujian provinces.

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coastal municipalities saw labour intensive industries locating in the former with heavy industries in Guangzhou. High technology ventures have not been attracted to the SEZs so much as labour-intensive activities from Hong Kong. Rising land and labour costs in the SEZs have begun to push cost-sensitive companies to other parts of Guangdong and inland China. Growth in the delta has attracted migrant labour from other provinces, along with increased imports of raw materials and food. With the rise of collective and small private enterprises, Shunde has developed a market niche in consumer electrical appliances, Dongguan and Zhongshan have attracted labour-intensive export processing from Hong Kong, while Foshan specializes in light industrial goods (plastics, textiles, and electronics).[111] In 1980, Guangdong and the delta produced 33 and 26% of primary sector output, 41 and 44% of secondary, and 25 and 30% of tertiary output. China had 30, 49 and 21% of primary, secondary, and tertiary output at that time. In 1990, Guangdong and the delta produced 26 and 15% of primary, 40 and 46% of secondary, and 34 and 39% of tertiary output. By 1993, the percentages had changed to 17 and 9%, 50 and 51%, and 32 and 40% respectively as the PRD became an important light manufacturing region.[112]

The high percentage of reexports from China through Hong Kong reflected the dependence on Hong Kong for final processing, with the higher reexport margins accruing to the latter. Export services in China are hindered by cumbersome overseas travel procedures, foreign exchange controls, and discrimination against private enterprises. Foreign investment has brought in limited technology transfers in major processing and export-oriented industries, including electronics, electrical machinery, foodstuffs, textiles, chemicals, and garments. The first two are concentrated in Shenzhen and Foshan while the

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Sung et. al, 14-34. See also Chen Dezhao, "Chinese Public Policy and the Southern China Growth Triangle," in Thant, Tang, and Kakazu, eds., 94-112.

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Y.W Sung et. al, *The Fifth Dragon: the emergence of the Pearl River Delta*, (Singapore: Addison Wesley, 1995), 1-10; Elizabeth Cheng, "Delta Force," *Far Eastern Economic Review*, 16 May 1991, 7-9.

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rest are located mainly in Guangzhou. Thus, the SEZs in Shenzhen, Zhuhai, Shantou, Xiamen, and later Hainan, proved successful in attracting foreign capital in labour-intensive export processing, infrastructure, and became models for the geographic expansion of coastal areas to reform policies. They process imported inputs from Hong Kong and Taiwan before they are sent back for final export; especially in consumer electronics, toys, textiles, foodstuffs, metal products, paper products, porcelain, and minerals. (Appendix 2.1-2.4)[113]

Outside labour migration into Guangdong has helped keep labour costs lower than it would otherwise have been, there is a dearth of skilled professional, technical, and managerial talent that upgrading of industrial activities difficult. Productivity is lower than Hong Kong but is offset by the lower wages costs. Lower wage costs as a percentage of output value allows companies to keep the difference as profit or reinvest. For example, average wages in Shenzhen went from 94 Yuan in 1981 to 419 Yuan in 1991, with SEZ average wages going from 100 to 366 Yuan in the same period. However, rising wages have been offset by renminbi devaluation relative to the US dollar and the gradual shift of factories from the SEZs to cheaper locations inland. To shift into higher value added tertiary and service industries, education levels of Guangdong workers have to be raised through improved post-secondary institutions while domestic and overseas talent are recruited in the interim. State-owned enterprise (SOE) reforms, after the 15th CCP Congress acknowledged the need for privatization in September 1997, and improved labour mobility can free up underutilised labour in the transition to skill and capital intensive manufacturing. The eventual conversion of the renminbi into a fully convertible currency would facilitate further trade and investment in the delta. Strong economic growth during the 1980s and 1990s is well documented but excessive reliance on export

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Sung et. al, 93-107; Economist Intelligence Unit, *EIU Country Report 1993: China*, (London: EIU Publications, 1993), 40-51; Lawrence Reardon, "The SEZs come of Age," *China Business Review*, (November-December 1991), 14-20.

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processing should not diminish recognition of the need to expand tertiary-service industries, perhaps through foreign investment.[114] (Appendix 2.3)

With rising costs in the Pearl River delta, the need to access raw materials and interior markets, future cost-sensitive investment will focus on northern Guangdong, western Fujian, and other inland provinces once delta infrastructure projects are completed. With the 1992 opening of inland provinces and cities to foreign investment, Hong Kong firms have led the rush outside Guangdong to northern and central China. Both China and Taiwan have also invested significantly in Hong Kong as a convenient third destination for their bilateral trade and investment.[115] The output of the SEZs and TVEs is dependent on outside investment, to set up production facilities, and is destined for export as components or final products. The enterprises started in the delta combine Hong Kong, Taiwanese and/or multinational technology, capital, management skills with the mainland's land, labour and investment incentives to attract export processing or assembly production. Although SEZs have lower tax rates than the open economic zones and coastal cities, limited land and higher labour cost constraints force cost-sensitive sectors relocate to other locations. SEZ's initial preferential treatment have been offset by rising costs and extension to other coastal areas. Attempts to attract the necessary skilled labour for a transition to more value-added activities will depend on improving land use regulations and the educational and technological infrastructure of the delta. The April 1996 decision to reduce Chinese tariffs and quotas will help both the attempt to entice

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Sung et. al, 110-31; Economist Intelligence Unit, *EIU Country Report #1 1993: Hong Kong*, (London: EIU Publications, 1993), 22-30; ibid., *EIU Country Report #4 1993: Hong Kong*, 24-5, 30; Wanda Szeto, "End of an era for HK textiles," *South China Morning Post*, 29 May 1995, 4.

115

Hong Kong Trade Development Council Topical Paper, *Economic Relations between Hong Kong and China*, 16 March 1995, 1-9; Hsin Hsing Wu, "The Political Economy of ROC-PRC Relations," *Issues and Studies*, (January 1995), 53-60; Pak Wai Lin, *China's Economic Reforms and the Development Strategy of the Pearl River Delta*, (Hong Kong: Nanyang Commercial Bank, August 1992), 30-71. China changed import statistics classification whereby imports into China via Hong Kong were not counted as imports from Hong Kong.

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capital and knowledge intensive industries and the mainland's entry into the World Trade Organization (WTO).[116]

In the future, the clothing industry must continue focusing on higher priced products through computer aided design and manufacturing to enhance output and efficiency in flexible production networks. Still, Hong Kong faces shortages of skilled labour, weak linkages to the local textiles industry, shorter retail cycles in export markets, and the gradual phase out of MFA quotas by 2005. The electronics industry is attempting to become a production site for advanced IC and LCD fabrication, capitalizing on its flexible response to external demands. But it will take time to develop and adequate indigenous R&D capability, despite increased post-secondary funding recently, as many components are still imported. The textiles industry also must adopt more technologically advanced production machinery and techniques, like the clothing industry, to maintain competitiveness. It faces similar problems regarding skilled labour, production costs, rising quality and environmental standards. The toy industry has moved production to the mainland and parts of southeast Asia, leaving mould making, engineering, testing, and advanced toy production in the territory. The household appliance industry faces low cost competition and must produce more value added products, in cooperation with the electronics industry, in order to survive. The plastics industry has linkages to various industries, such as toys, clothing, textiles, electronics, watches, travel goods, and photographic equipment. Its versatile workforce will have to use micro-electronics aided techniques to compensate for recycling, dependence on imported resins, labour shortage, high land prices, and factory relocation.

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Edward Chen and Anna Ho, "Southern China Growth Triangle," in Thant, Tang and Kakazu, eds., *Growth Triangles in Asia*, (Hong Kong: Oxford University Press for the Asian Development Bank, 1994), 30-67; Peter Ferdinand, ed., *Take-Off for Taiwan?*, (London: Royal Institute for International Affairs, 1996), 46-7, 56; Economist Intelligence Unit, *EIU Country Report #2: Hong Kong*, (London: EIU Publications, 1992), 22-3; and Rahita Elias, "HK expected to handle more transshipment from China," *Business Times Singapore*, 11 October 1994.

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Just as Hong Kong, Taiwanese, Japanese, and Western capital has penetrated the mainland, Chinese investment has also increased within Hong Kong. In the 1995 Survey of External Investment in Hong Kong Manufacturing, Hong Kong's infrastructure, banking, location, and skilled labour pool are considered favourable factors for investment although political uncertainty over 1997 could hinder growth. China is the third largest investor, after Japan and the US, but ahead of the UK and Holland. Japan and the US prefer wholly owned ventures to joint ventures in Hong Kong while China and the UK are more balanced. External investment is concentrated in electronics, electrical products, textiles, clothing, and foodstuffs respectively. Over fifty state run companies, controlled by the State Council, operate in Hong Kong and include China Merchants, China Resources, China Everbright, and CITIC. There are also numerous provincial, municipal, and military-backed "window" companies operating in Hong Kong that do not remit profits to Beijing. In the late 1980s, Beijing relaxed its profit remittance policy for Hong Kong based state run firms. A contractual quota system allowed for greater financial autonomy and spurred investment in the colony. Hong Kong is also convenient for Chinese companies circumventing domestic foreign exchange controls by depositing funds locally. Chinese investment is concentrated in banking, property, trade services, transportation, tourism, manufacturing since 1984.[117] (Appendices 2.2-2.4)

Thus, the Pearl River delta in Guangdong province evolved into the manufacturing hinterland for Hong Kong, and Taiwan, based industry. Hong Kong and Taiwanese firms took advantage of the liberal option encouraged, or tolerated, by their governments and China's domestic economic reforms. Labour-intensive operations in industries facing

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Hong Kong Industry Department, *1995 Survey of External Investment in Hong Kong's Manufacturing Industries*, (Hong Kong: Government Printers Office, 1996), 55,61-2, 77; Yin Ping Ho, *Trade, Industrial Restructuring, and Development in Hong Kong*, 135-43, 149-151; chapters on Hong Kong-China economic relations by Wang, Feng, Hsueh, Chan, Thorburn, and Sit in Edward Chen et. al, eds., *Industrial and Trade Development in Hong Kong* (Hong Kong: University of Hong Kong Centre for Asian Studies, 1991); Pui Wing Tam, "Vtech's Victory: Linking Hong Kong and High Tech" *Wall Street Journal*, 7 October 1997, B5.

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increased production costs in Hong Kong and Taiwan found an inviting investment environment, along with cheaper land and labour. The investment incentives offered by Beijing to businesses reflected Chinese mercantilist priorities and made relocation into Guangdong and Fujian economically sound. Although China wanted to attract more capital and knowledge intensive manufacturing, the economic growth spurred by Hong Kong, Taiwanese, Japanese (and to a lesser extent, Western) investments helped further the reform process in China.

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Japanese, Taiwanese and Western FDI helped create production networks in the NIEs and ASEAN where the growth zones are located. The growth zones in southern China and ASEAN utilize Japanese, overseas Chinese and Western capital to lead production relocation and build export facilities. Factories are transferred within the two zones due to rising costs, improved product quality by local firms and intensified R&D in Singapore and Hong Kong. Japanese and Western control of high technologies also maintain a hierarchical division of labour in the region as foreign and overseas Chinese investment are invited to spur export production, and allow MNCs access to host markets. The intraregional division of labour within the zones consists of production and distribution networks linking MNCs and local firms, horizontally and vertically, to a core metropolis serving regional and global markets. The relocation of production facilities has accelerated trade flows between zone participants.[118]

The intensification of East Asian economic integration, through subregional growth zone development, was driven by Japanese, Western, and overseas Chinese FDI as the Yen appreciated after the September 1985 Plaza Accord. This outflow arose as a response to American protectionist pressures over rising trade deficits, which grew out of the early Reagan pursuit of a strong dollar. The Reagan administration pressed for Yen appreciation as a way to reduce Japan's trade surplus. The stronger Yen forced Japanese firms, in order to maintain competitiveness, to invest domestically, in productivity-enhancing machinery, and overseas, in lower cost sites. Exports from East Asian investment locations could be sent to Japan and other markets. NIC investment in Hong Kong and Singapore into China and Southeast Asia respectively also grew out of similar

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Bernard and Ravenhill, 179-83. Official data for investment flows can be understated and there are discrepancies between data recorded by different national or international agencies. DFI data may not show their importance to host economies as production cooperation can involve technology licensing or other activities that do not involve a transborder flow of funds.

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pressures. Many Southeast Asian countries opened their economies, a liberal response, to Japanese and NIC investment in the 1980s because they hoped to follow Japan's development strategy. Deng Xiaopeng's open door-liberal policy was aimed at attracting capital and technology to foster an mercantilist, EOI policy. The acceleration of China's external liberalization process with the 1988 Coastal Development Strategy was also designed to capture the castoff industries of Japan and the NICs.[119] This form of regional industrial integration, largely interfirm alliance driven, is based on mutually beneficial and hierarchical relationships that facilitate both direct transfer and user-producer interaction. At the same time, they encourage entrenched and hierarchical patterns of supply of new technologies-technologies that are not easily replicated.[120] (Appendix 3.1 and 5.1)

Japanese investment in the zones helped create and extract profits through exploitation of cheaper labour, land, raw materials, and local markets. After the 1985 Plaza Accord revalued currencies, offshore manufacturing from the NIEs shifted to ASEAN and China as production costs rose and the former shifted into intermediate technology product and service niches. Japanese direct investment in the triangles also recognizes market expansion potential and proximate location for offshore production. Outward investment during the late 1980s was concentrated in labour intensive and resource extraction sectors. In joint ventures with overseas Chinese companies, Japanese capital has integrated its partners into regional production network through technology licensing and original equipment manufacturing (OEM) of machinery, motor vehicles, electrical machinery, textiles, chemicals, and microchips. While the Chinese networks are

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Eric Helleiner, *Regionalisation in the International Political Economy*, (Toronto: Joint Centre for Asia-Pacific Studies East Asia Policy Papers, 1994), 13-14 and Edward Chen, "Economic Restructuring and Industrial Development in Asia Pacific: competition or complementarity?" *Business and the Contemporary World*, 5/3 (Spring 1993), 74-86.

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Bernard and Ravenhill, 105-7; Keun Lee, *New East Asian Economic Developments*, (London: ME Sharpe, 1993), 102-25; Claes Alvstam, "The Impact of FDI on the geographical patterns of foreign trade flows in Pacific Asia with special reference to Taiwan," 63-83; Hans Blomqvist, *The Flying Geese Model of Regional Development*, unpublished paper, May 1995, 3-16.

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held together through personal ties cemented by mutual ownership of equity, the networks of international capital are based on functional relationships between institutionalised industrial, financial, and commercial capital fractions. Thus, Japanese MNCs emphasized lowering production costs and maximizing market access through FDI, production alliances, joint ventures, and regional outsourcing.

Although much of Asia Pacific still relies on Japanese capital and technology imports, transnational migration of production is not uniform across all sectors. In Korea and Taiwan, original equipment manufacturing is still dominant in high technology industries. In Southeast Asia, export-oriented manufacturing is conducted by the subsidiaries of transnational corporations as transnational production networks coexist within the interstate system. This dependence on Japanese technology and Japanese firms' reliance on other low-cost assembly locations has produced a regional division of labour based on cross-border production networks. Production networks, while offering some flexibility, continue to be arranged hierarchically. Location within the hierarchy relates to the architecture of supply and the production practices of different firms that have pursued diverse strategies in their respective contexts. Location influences the nature of overseas investment. A yen bloc has not emerged because intraregional manufactured exports have not *yet* flowed back to Japan significantly.[121]

Japanese manufacturing FDI is concentrated, since the 1985 Plaza Accord, in electrical goods and electronics, unlike the earlier emphasis on textiles, metals, and chemicals. Many Japanese and Asian NIE firms moved production to cheaper locations to

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Denis Fred Simon, ed., *The Emerging Technological Trajectory of the Pacific Rim*, (New York: ME Sharpe, 1995), xiii-xvi. The rise of the Asian economies in the postwar period has been accompanied by the diffusion of technology from developed countries to the NICs, and later to the new NIEs, within the context of a regional division of labour. The successful adaptation of imported technologies was aided by state investments in physical infrastructure and, through education spending, human capital. Manufacturing and R&D has shifted from Fordist mass production to post-Fordist specialized production with improvements in microelectronics; the return of talented diaspora to the region; and the rise of corporate alliances between Asian and non-Asian firms. Building upon a strong national technology base is viewed as essential for economic development. Gains in productivity, efficiency, employment, and trade reflect national attempts, mainly through industrial policies, to create competitive advantage. Low cost, high quality, just-in-time production is achieved more through specialized, small batch production runs that reflect customer needs and capitalize on local competitive advantage. The use of computers and improved telecommunications also help coordinate operations (horizontal and vertical linkages) between networked firms.

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avoid rising costs and avoid tariffs on imports. The reliance on Japanese technological inputs also places other Asian suppliers in a hierarchical relationship with Japanese companies.[122] Host governments are still concerned that the existing levels of technology and skill transfer to local staff is insufficient as higher value added functions are restricted to the home base or expatriate personnel![123]

Japanese, Taiwanese and Korean MNCs have moved low-end electronics production to ASEAN but still rely on many capital equipment imports from Japan. Mature product sectors are influenced by non-linear changes in production techniques, R&D, and product differentiation. NIE firms face steep learning curves and higher R&D costs in their efforts to find profitable niches in the regional labour hierarchy but some NIE companies have increased their productivity and skill formation as a result.[124] Technological dependence is more pronounced in ASEAN than in the NICs because of the reliance on MNC subsidiaries for manufactured export production and the lack of backward linkages in export processing zones (EPZs). The primary reason cited for the lack of increased domestic inputs supplied to Japanese MNCs is the inability of local firms to supply goods and services of the desired quality or reliability. Locally owned companies would find it hard to become part of a network unless they allied themselves with a foreign subsidiary. Inputs from Japan and the NICs end up processed in the region before being

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Bernard and Ravenhill, 108-110. Japanese and Korean high-technology firms cooperate in standardized electronic components, like Samsung and Toshiba in semiconductors, to take advantage of Korean skills in capital intensive mass production. Korean companies receive Japanese technology and quality control expertise. Networks as an organizational form require ongoing interaction, coordination, and information sharing. Still, technology transfers are usually accompanied by reluctance to transmit the very latest products, a tendency to allow access to mature technologies, and concerns about skilled employee flight, either to competitors or their own firms.

123

Shoichi Yamashita, "Japan's Role as a Regional Technological Integrator," in Simon, 347, 350-51; Tran van Tho and Shujior Urata, "Technology Transfer in the Pacific," in ibid., 298-301 and 305-307.

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Bernard and Ravenhill, 185-8, 192, and 206-8; Y.W Sung, "The economic integration of Hong Kong, Taiwan, and South Korea with China," in Ross Garnaut, ed., *Economic Reform and Internationalization*, (St. Leonard's, NSW: Allen & Unwin, 1992), 149-80; Terutomo Ozawa, "Japan: the micro IDP, the meso IDPs and the technology development path (TDP)," in John Dunning, ed., *Foreign Direct Investment and Governments*, (London: Routledge, 1996), 145-66.

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exported to third country markets.[125]

In the late 1990s, "Japan and the US are more likely to meet [China's] needs and conform with the initial objectives of its opening up modernization process. With the shortening high-tech product cycle and upgrading of industrial structures in the Asia-Pacific, China's need for technological modernization have increased."[126] Given the strong trade and investment ties between Hong Kong and Taiwan with China, there is complementary potential for cooperative R&D ventures as the latter two triangle participants have large pools of engineers, technicians, and scientists. Hong Kong could follow Taiwan's example, beyond setting up high technology industrial estates, in attracting foreign or overseas Chinese professionals to bolster the domestic technology base. Hong Kong and China already cooperate in academic exchanges, productivity enhancement, product development, and capital-equipment sourcing. Taiwan and China began, in 1992, to cooperate on technical exchanges and industrial area development. Hong Kong can utilize its market access, business services, and financial network strengths while China could specialize in basic research and mass production. Taiwan has strong technology access, design and development capabilities. Future collaboration could also take the form of alliances with non-Chinese governments or firms and assumes smoother cross-straits relations.[127]

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Ravenhill and Bernard, 196-9 and 200-5; Such networks also complicate the interpretation of national trade, investment, and local content data as output would be counted locally while purchasers would see a Japanese, Korean, or Taiwanese brand name and the DFI statistics would record a Japanese or NIC investment. See also Bernard, "Post-Fordism, Transnational Production, and the Changing Global Political Economy," in Stubbs and Underhill, eds., *Political Economy and the Changing Global Order*, (Toronto: McClelland and Stewart, 1994), 216-226.

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Mark and Kim in LaCroix et. al, eds., 264-277; Clark and Chan, 208-209; Deyo, 26-28; Tho and Urata in Simon, 299, 304-5. For Taiwan, the NIEs include Hong Kong and Singapore. For China, the NIEs include Hong Kong, Macau, and Singapore. See also Peter Ferdinand, "Takeoff for Taiwan?" *Pacific Review*, 6/4 (1993), 321-32; Anjali Kumar, "Economic Reform and the Division of Labour in China," in David Goodman and Gerald Segal, eds., *China Deconstructs-Politics, Trade and Regionalism*, (New York: Routledge, 1994), 104-5, 108-9, and 114-9.

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Hong Kong has strong comparative advantages in trade support services, including transportation, warehousing, cargo handing, trade financing, insurance, telecommunications, advertising, and inspection. Hong Kong Trade Development Council, *Hong Kong's Trade and Trade Supporting Services*, (Hong Kong: HKTDC, April 1996), 5-30; Yin Ping Ho, *Trade, Industrial Restructuring, and Development*

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Assuming that Taiwan-Hong Kong trade is a rough surrogate for ROC-PRC commercial relations, the mainland imports intermediate products (polymers, textile fibres, fabrics, capacitors, integrated circuits, CRTs, and other electronic components) from Taiwan for use in labour intensive factories established by Taiwanese in the PRC. Most mainland production is eventually reexported to developed markets as lower value added products. Thus, Hong Kong and Taiwanese capital are still key elements in the evolution of the growth triangle because of cultural-linguistic ties, geographic proximity, and social network connections to government officials. According to neoclassical economic theory, if cheaper labour costs were the only or major reason for relocation, Vietnam or the Philippines would be just as attractive. Lower labour costs are necessary but *insufficient* to attract external investment. Hong Kong will continue to be the key entrepot given its infrastructure, historical openness to trade and investment, and contemporary PRC-ROC tensions. Moreover, Hong Kong's industrial-service structure and relocation process will also be affected by political and economic dynamics in Fujian and Guangdong as labour intensive production moves further inland, the success of Chinese firms in drawing on the Hong Kong capital market, and the development of capital/knowledge-intensive industries within the growth zone. (Appendix 3.1)

Taiwanese trade and investment with the mainland, through Hong Kong, has grown significantly since the late 1980s as Taiwanese firms sought out cheaper land and labour across the straits in Fujian and Guangdong. The CCP needed to improve regime legitimacy, economic performance, and facilitate reunification by encouraging overseas Chinese investment in its SEZs. Outside investment into the mainland also fluctuated with the business and economic reform cycles that led to expansion, inflation, and, later, retrenchment. Both Taiwan and China also increased their import and export dependency

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in Hong Kong, 86-89, 208-223.

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with each other since 1987. Direct investment and trade were expedited by Deng Xiaopeng's southern tour in January-February 1992 and his October 1992 speech to the 14th CCP National Congress, which pushed economic reforms to the fore as interior provinces and cities tried to attract investment through special development zones, like those on the coast. Incentives included tax exemptions, tariff holidays, and a devalued domestic currency relative to foreign currencies. Previously, Taiwanese investments were in tourism, real estate, electrical products, vehicle parts, shoes, and plastics along the coast. Such investments continued inland, along with production of higher valued goods, consumer items, and provision of commercial services. By 1993, Taiwan's trade surplus with China (US$6.5 bn officially, an estimated US$12.9 bn inclusive of triangular and transhipment trade) helped offset the declining surplus with the US and deficit with Japan.[128]

Indirect trade between Taiwan and China takes place mostly through Hong Kong, notwithstanding the spring 1997 start of limited cross-straits shipping. Products from Taiwan are transhipped via Hong Kong to China after clearing customs; commodities land in Hong Kong from Taiwan and then shipped overland to China so there is no export record, only an import record; and goods are transferred in Hong Kong waters before landing in China, bypassing Hong Kong customs. Since Hong Kong data records the first method of indirect trade, Hong Kong statistics undervalue the bilateral trade value across straits. The difference in bilateral data between the value of Taiwan's exports to Hong Kong and Hong Kong's imports from Taiwan represents the value of commodities transferred to China without passing through customs. Many Taiwanese exports to Hong Kong also end up shifted to China after landing. Much Taiwanese investment capital is

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Notwithstanding Taiwan's attempts to upgrade its manufacturing base, infrastructure, and reform its domestic capital market in order to become a regional business hub, Taipei is concerned that further mainland investment would lead to declining manufacturing sectors and asymmetric interdependence that could be exploited politically. However, cheaper imports would aid Taiwan's economic competitiveness as Taiwanese computer firms seek mainland skilled labour and market opportunities, despite continued dependence on Japanese capital goods.

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also "disguised" as Hong Kong capital for market entry. Even for investment project data, there is a discrepancy between Taiwanese and Chinese data that reflects Taiwan's inability to enforce indirect trade and investment regulations. Taiwanese data suggest the number of 1991-1994 projects increased to 10764, with a value of $US 4551.77 million, but mainland statistics indicate 27425 projects and totalling $US 24,364.9 million. In terms of other trends, the most recent investment have been by larger firms and more capital intensive as Taiwanese SMEs have largely relocated to China. Export processing is done through wholly owned operations while domestically focused enterprises are often in joint ventures. August 1994 data indicates that Jiangsu, Guangdong, Fujian, Shandong, and Zhejiang are ROC firms' top destinations in China. (Appendix 3.2)[129]

Taiwanese companies have also been encouraged by their government to invest in Southeast Asia because of concerns about China potentially exploiting asymmetric interdependence with Taiwan. The missile tests in the Taiwan Straits during the fall of 1995 and spring 1996 highlight the risks of mainland investment because of the vagaries of cross-straits relations. Market dependence on China and deindustrialization could allow Beijing to exert economic pressure on Taipei, although many higher value added functions are kept on Taiwan as companies upgrade. Taiwanese investment on the mainland is more labour intensive with electrical goods, electronics, foodstuffs, rubber and plastic products as the most common industries. China has cheap unskilled and skilled labour in a large domestic market that is complementary to Taiwan's capital, R&D base, and management

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Tse Kang Leng, *The Taiwan-China Connection*, (Boulder: Westview, 1996), 90-100, 106-112, 120-124, 132-136; Since reforms began in 1979, foreign trade as a percentage of GNP grew from 9.89% to 35% of GNP. Contracted FDI increased to 80US$ billion by 1994 while foreign investment contracts increased, between 1980-90, from 344 (1.675$ billion) to 7236 (6.57$ billion). Foreign enterprises' exports increased to 27.5% of total exports by 1993. Much of this investment came from overseas Chinese (*huaqiao*) and played a large role in the economic integration of Hong Kong, Taiwan, Guangdong, and Fujian. Bilateral trade between China and Hong Kong grew at a 39% average annual growth rate as both partners became each other's largest trading partner by 1991. For 1980-91, Guangdong exports to Hong Kong grew 21% annually such that 85% of provincial exports went to HK in 1991. Fujian exports to HK grew 28% annually between 1985-91. As a key entrepot for the Southern China triangle, PRC reexports to HK reached 86% by 1991 while ROC exports and imports via HK reached 49% and 30% by 1992. Increasingly, Hong Kong supplies producer goods, such as machinery, to the PRC instead of consumer goods as light manufacturing moves into lower-cost China. This entrepot function will continue to grow in light of the continuing cross-strait tensions that soured PRC-ROC relations in 1995. ROC exports to HK increased 28% annually between 1978-88 while HK exports to ROC grew by 24% that period.

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expertise. The Taiwanese prefer wholly owned ventures because of incompatible business management styles, values, an unfamiliar business environment, and control over internal sourcing. After 1994, investment shifted to more capital or technology intensive operations, such as cars, computers, and petrochemicals, in cities like Suzhou, Shanghai and Huizhou. Geographical concentration has also lessened as Taiwanese capital moved from Guangzhou, Shenzhen, Xiamen, and Fuzhou to Shanghai, Zhejiang, Henan, and Jiangsu provinces. This spatial division of labour allows low value added manufacturing to remain competitive on the mainland while industrial upgrading occurs on Taiwan.[130]

Taiwanese investment in Fujian had been hindered until bilateral trade and investment restrictions were lifted in 1981 and 1987, respectively, after Beijing realized reunification would be more attractive if market liberalization took place on the mainland and Taipei relaxed political restraints. Fujian's geostrategic importance as a potential invasion staging area, across from Taiwan, also hindered its economic development. Initially, the Fujian CCP leadership, under Ma Xinguan (Shanxi clique), was cautious about economic reforms. It was not until Hu Ping became governor in January 1983 and Deng Xiaopeng visited Xiamen SEZ in 1984 that reforms took off. Disputes over further reforms also continued within the army (over loss of expropriated land for SEZs) and between local and invited cadres over the location of SEZ sites. The choice of Xiamen was also politicized by debate over its role as a trade or industrial centre, along with the linguistic divisions between northern and southern Fujian. The SEZ was expanded during 1984-86 to include Fuzhou, and other parts of the province, and Xiamen became a free

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Between 1986-1991 and beyond, Taiwanese investment in ASEAN, *in total*, is smaller than FDI in China but larger in terms of average project investment size. Estimates for Taiwanese investment into China through Hong Kong, for 1986-1991, range between 2500 to 4000 firms and up to US$3 billion. Cumulative investment up to June 1993 reached US$14.5 billion in 15,812 ventures although a recent estimate put the total closer to US$26.3 billion in 29,500 operations up to June 1995. Taiwanese investment in ASEAN is arguably less problematic, in terms of risk, because of slightly more stable investment regimes and the treatment of DFI as means to promote domestic industrial development. China pursues a "two ends out" (*Liang tou tsai wai*) strategy whereby the imports sourced from abroad are used in products destined for future export. Local sources also could not supply adequate inputs to many foreign invested operations. Lee-in Chen Chiu and Chin Chung, "An Assessment of Taiwan's Indirect Investment Toward Mainland China," *Asian Economic Journal* 7/1 (1993), 47-50.

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port to conduct direct trade with Taiwan. Improvements to FDI regulations were approved in October 1986 to expedite investment decisions while long-term land leases were set up in June 1988. Fujian's growth continued after Deng Xiaopeng's 1992 tour of Southern China called for further development. In comparison with Guangdong, foreign invested, export oriented industrialization in Fujian has not been as extensive because Taiwanese investment and trade is funnelled through Hong Kong. Since 1992, Taiwanese investment targeted the domestic market.[131]

Taiwanese investment in and trade with Fujian province restructured Taiwan's economy through the transfer of declining industries to lower cost locations on the mainland and partly highlights the vertical economic integration within the growth triangle and across the region. These trade and investment flows are driven by different economic complementarities, a changing division of labour due to currency realignments, and greater intra-industry trade between Japan, the NICs, and ASEAN. Fujian and the Xiamen SEZ attracted the bulk of Taiwanese FDI because of close historical, linguistic (*minnanhua*), and cultural ties. Taiwanese investment in Xiamen provided capital, technology, and expertise in return for cheap labour and land. Investors concentrated on wholly owned ventures in labour intensive, light industries (78% for 1983-91), along with paper, garments, and chemicals for export (24%, 17%, 17%). Initially, SMEs invested in single ventures before moving onto joint developments in a group. These companies also imported much of their inputs and managerial personnel from Taiwan, beyond land and labour. Imported technologies were usually of the standard, simple variety. After FDI grew after 1988, the importance of SOEs in Xiamen decreased and plans for electronics

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Xu Xinpeng, "Taiwan's Economic Cooperation with Fujian and Guangdong: the view from China," and Ricky Tung, "Taiwan and Southern China's Provinces," in Klintworth, ed., 142-53 and 154-67; Jeremy Mark, "Taiwan seeks to break mainland fever," *Asian Wall Street Journal*, 10 June 1993, 1 and 8. The impetus for democratic reforms and cross-straits liberalization in Taiwan can be traced back to President Chiang Ching Kuo's awareness of US pressure to lift martial law, especially after Henry Lim's 1984 murder in San Francisco for writing a scandal ridden biography of the younger Chiang.

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growth were replaced by chemicals. (Appendices 3.2-3.3)[132]

When the Xiamen SEZ was established in October 1980, the open zone was restricted initially to Huli district. In March 1984 and May 1989, the geographic area was expanded to include the entire island, and Xingling and Haichang districts respectively. Jimei district was added in December 1992 to accommodate the increase in Taiwanese investment. The early 1981-1983 phase of the SEZ saw improvements to the airport, harbor, telecommunications, services, and factory sites. Land use, labour regulations, and registrations were eased for foreign funded enterprises also. From 1984-1987, SEZ production grew, notwithstanding a consolidation period in 1985-1986 as CCP conservatives sought to recentralize, because investments in factories were accompanied by interest in real estate, tourism, and commerce. Taiwanese investment also began to move into Fujian via Hong Kong after the KMT relaxed trade, travel, and investment restrictions in 1987-1989. Rising production costs on Taiwan and preferential treatment of Taiwanese investment also increased the attractiveness of Xiamen for offshore production. Investment and new projects were only slightly affected by Tiananmen and recovered by 1991. Most Taiwanese investment was concentrated in light industries (textiles, chemicals, fibres, wood products, plastics, metal products) while tertiary investment was in real estate or tourism. A small amount of capital went into primary food processing.

Initially, joint ventures in rented, short-term processing facilities were used but long-term sole proprietorships became more common later and used imported Taiwanese technology for exported products. Taiwanese investment in Fujian has not been as diverse, in terms of number of industries, as the capital flowing into ASEAN countries and tends to concentrate on labour-intensive sectors. Xiamen, and the rest of Fujian, trails only Guangdong and Shenzhen in terms of the number and value of registered foreign

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In the future, ROC investments may conflict with China's industrial policy goals, ROC limits on mainland investment, the creation of a dual local economy, the eventual need to move inland and import more high technology, and the need for official financial links.

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investment projects funded by Taiwanese capital. Taiwanese SMEs in the shoe, plastics, apparel,, leather, wood, and electronic component industries moved to the mainland as land, environmental, and labour costs on the island increased during the EOI boom of the 1970s and 1980s. Moreover, quotas for these types of exports could be transferred to China and alleviate concerns over bilateral trade imbalances. By 1985, foreign firms based on Taiwan moved to the mainland while ROC firms shifted from SE Asia to the PRC after the KMT allowed mainland visits and loosened foreign exchange controls. Nonetheless, overseas Chinese were able to establish relationships (*guanxi*) with local and provincial officials in order to overcome obstacles to their investments, such as poor infrastructure, low skill levels amongst local staff, and corruption.[133] (Appendices 3.2-3.3)

The improved economic performance of the South pushed Beijing to broaden reforms to appease other regions, disseminate growth, and rein in potential demands for autonomy. The decentralization of some economic decision-making created regional/provincial competition for resources and benefits. Beijing had some difficulty in enforcing central decrees and mediating inter-provincial conflicts. Taiwan is also concerned about asymmetric consequences arising from further trade, investment, and transport liberalization with the mainland, particularly a shift in industrial assets towards China. But Taiwanese firms, especially SMEs, are keen to continue investing and trading with China, and would like to avoid the hassle of using a third operations base, Hong Kong. The ruling KMT is concerned about mainland reluctance to accept its drive for greater international recognition, especially since President Lee Teng Hui's 1995 US visit and the resultant deterioration in bilateral ties. Both the ROC and PRC face domestic pressures to improve bilateral relations but are constrained by foreign and security policy considerations.

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David Schak, *Entrepreneurship, Economic Growth, and Social Change: the transformation of Southern China*, (Brisbane: Griffith University Australia-Asia Paper #71, July 1994), 61-63 and 66-68.

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Hong Kong and Taiwanese firms, then, have developed close ties with local authorities to secure preferential treatment. But neither Hong Kong nor Taiwan accord explicit favourable treatment to mainland companies. They relocated sunset industries to the mainland to offset rising currencies, export market protectionism, land, and labour costs. Early investments were concentrated in consumer electronics, footwear, garments, toys, plastics, and have shifted more recently into electronic components, chemicals, transport equipment, real estate, finance, and tourism. Their large foreign exchange surpluses are recycled as investment capital into the mainland. The economic growth since 1979 has transformed the domestic workforce into a large consumer market eager to spend rising incomes and savings. The labour intensive production from foreign invested mainland factories import capital goods and investment finance in order to process intermediate products before shipping them back to Hong Kong (intermediary entrepot or transshipment point) and Taiwan for final processing. Goods are sent to/from Hong Kong to/from China and Taiwan and altered shipping records lead to discrepancies in triangular actors' bilateral trade statistics. The large share of Hong Kong's exports and reexports to/from China reflects the outward processing taking place in Guangdong and Fujian prior to final export back to Taiwan or elsewhere. This effect may be seen in the decline of miscellaneous manufactures as domestic exports and growth in reexports. (Appendices 3.1-3.3)

The KMT's *inability* to manage cross-straits trade highlights both its insistence on indirect economic contacts, notwithstanding Hong Kong's 1997 return to China, and the failure of the Taiwanese state to coordinate or control the speed and extent of ROC-PRC interaction, particularly as both large companies and SMEs conduct business with the mainland. Democratic transition, lack of bureaucratic coordination, penetration of state institutions by business interests, and the failure of mercantilistic import-export/investment regulations constitute important changes to Taiwan's political economy. Flourishing cross-

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strait contacts since 1987 provides a challenge to the strong, developmental state paradigm often used to explain East Asian NIC development. The relocation of smaller firms to the mainland has pushed the large, government-favoured conglomerates to seek out business opportunities there. It was only in 1994 that KMT-owned enterprises could invest in China and the January 1997 decision to allow limited cross-straits shipping acknowledges economic reality and growing bilateral interdependence. Investment projects in China, actual or projected, allow Taiwanese multinationals to bargain with the state for favours and develop closer ties between the state and domestic capitalists. (Appendix 3.3)

Available data on ROC-PRC-HK trade flows suggests a high proportion consists of investment induced intermediate and reprocessed goods and reflects inter-industry trade (rather than intra-firm). These firms wanted to continue producing good quality products at low cost through early entry and locational advantages. After 1990, high technology or capital intensive Medium and Large Enterprises (MLEs) started to invest on the mainland outside Guangdong and Fujian, in larger and more numerous projects, as Taipei permitted indirect investment. By 1992, popular destinations for Taiwanese investment included Shanghai, Jiangsu, Shandong, and Hubei. After Deng Xiaopeng's 1992 southern tour, further reforms opening up the service/tertiary sector attracted more Taiwanese FDI. After 1994, investments surged in both service and manufacturing sectors. Most recent FDI has moved into more capital intensive industries, such as chemicals and non-metallic minerals, and MLEs are targeting the domestic market more.[134]

Taiwanese manufacturing FDI thus went to electrical goods, electronics, plastics,

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Lee-in Chen Chiu and Zai-pu Tao, *Comparison of Industrial Structures among Mainland China, Taiwan and Hong Kong-Implications for Economic Integration*, (Taipei: Chung Hwa Institute for Economic Research, December 1995), 16-27; Nomura Asia Focus, *Start-up of Taiwan's Long-term Development Strategy*, (August-September 1995). Singapore has traditionally competed with Hong Kong as a regional financial centre. Hong Kong's comparative advantage in legal, communications, administration infrastructure and stable fiscal policy could be adversely affected by a unstable transition in 1997 and erosion of Basic Law protections.

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processed foods, textiles, metal products, apparel, and miscellaneous goods reflects, depending on the industry, three types of investment strategy after the July 1988 promulgation of Twenty Two State Council Regulations on Taiwanese Investment. Large, established companies involved in cross-straits operations include: President Enterprises (food processing); Chung Shing (textiles, garments); Chung Hwa Picture Tubes (electronic appliances); Nan Ya Plastics (petrochemicals, semiconductors); and Tai Yuan (car parts). Still, such firms do import technology from Japanese and US MNCs rather than rely on their own R&D base for items such as car parts and home appliances. Initial Taiwanese FDI was for production relocation but more recent investment is for market and product integration. Production relocation by labour intensive, export oriented SMEs is driven by domestic cost and competitive considerations (similar language-culture, lower cost land). Factories move to China (Guangdong, Fujian, and Shanghai being the top three destinations) while head offices remain in Taiwan. (Appendix 3.3)[135]

Market integration by domestically oriented, oligopoly firms when they moved to the mainland to meet import competition and overcome satiated local demand. SMEs followed their larger patrons in order to maintain business relations while reverse imports from the host are concentrated in intermediate and processed goods. For example, Giant Manufacturing has a bicycle plant in Shanghai to meet mainland demand. Production integration by high technology firms upgrades domestic facilities and transfers mature product manufacturing to lower cost locations through a horizontal or vertical division of labour. Domestic restructuring occurs while outward FDI transfers declining products to the mainland. For example, Acer has a Jiangsu peripheral plant to service its Taiwan wafer fabrication site while Inventec has created software design offices in Beijing, Tianjin,

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The labour oriented initial Taiwanese FDI benefits the home country as affected firms restructure by relocating to the mainland, thus maintaining the value of industry specific capital. FDI can substitute local production for cross border trade, generate trade in intermediate goods, and help satisfy third market demand. Eventually, FDI driven vertical and horizontal trade reduces home exports and increases home imports as local sourcing increases.

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Chengdu, Wuhan, and Xian for future exports.[136] (See Appendix 3.3)

The evolution of cross-straits relations since economic reforms began shows how asymmetries in a growth zone has integrative potential. As a smaller country, Taiwan is more vulnerable to pressure from China, as seen in the March-April 1996 Taiwan crisis, but both have incentives to cooperate due to their economic complementarities. Both Taipei and Beijing exhibited mercantilist concerns through their slow liberalization of bilateral economic ties. Cross straits trade and investment has led to a Taiwanese surplus as China imports textiles, electronics, machinery, chemicals, and capital from Taipei, via Hong Kong. China exports foodstuffs and semi-processed labour intensive products (from Taiwanese owned factories) back to Taiwan via Hong Kong. The transfer of footwear, chemicals, fabrics, yarn, and other labour intensive processing industries to China has also shifted Taiwan's bilateral trade surplus with the US onto China. By 1993, Taiwan had a US$5.7 billion trade surplus and approximately 9100 companies operating on the mainland. Economic relations with Taiwan has fostered industrial and provincial interests favouring closer economic ties, although it has not visibly affected Beijing's stance toward eventual reunification or potential Taiwanese independence as the pragmatic bilateral interest in detente has not muted conflict over Taiwan's drive for greater international recognition.[137]

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Chen Chiu and Chung, 54-60, 66-67. See also Li Jung Zher, *Lun Jingji Zhiyu Huayu Chanye Shenji* (A Discussion of Economic Liberalization and Industrial Upgrading), (Taipei: *Zhonghua Jingji Yanjiuyuan*, [Zhonghua Economic Research Institute], September 1995), 466-516. The top indirect mainland imports from Taiwan, for 1989-1990, include: textile fabrics; knitted fabrics; polyvinyl chloride; cathode ray tubes; leather; plastic materials machines; insulated wiring; tanning machinery; textured yarns; miscellaneous machinery; polyester; polyurethane; and machine parts. The earlier phases of investment saw large imports of (used) machinery to equip the factories relocated to the mainland. There would be a decrease in the employment and production indices for the relocated sectors in Taiwanese data.

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Jia Qingguo and Susan Shirk, "Economic Interdependence and Political Detente: the evolution of relations between the China mainland and Taiwan," in Shirk and Twomey, eds., 142-59; Steve Tsang, "Maximum Flexibility, Rigid Framework: China's Policy towards Hong Kong and its Implications," *Journal of International Affairs*, 49/2 (Winter 1995), 413-33; Jeffrey Garten, "Time to stop trading threats," *Financial Times*, 15 May 1996, 12; Tony Walker, *FT Survey: China*, 27 June 1996, 1-6; Annie Huang, "Taiwan transforms into techno titan" *Globe and Mail*, 26 September 1997, D2; Geoff Wheelright, *Financial Post Survey: Taiwan*, 4 October 1997, T1-T8; and Laura Tyson, *FT Survey: Taiwan*, 7 October 1997, 1-6. Notwithstanding the March 1996 Taiwan crisis, closer ties between Hong Kong, Taiwan and China continue in telecommunications joint ventures and cross-straits commercial linkages, although major infrastructure projects in Hong Kong appear stalled until after the July 1997 transition. China and Taiwan agreed on initial cross-straits shipping in January 1997.

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Chapter Seven: The Development of the JSR Growth Zone

The concept of a "growth triangle", incorporating economic linkages between Singapore, Johor (Malaysia), and Riau (Indonesia) was first articulated in December 1989 by Singapore's then First Deputy Prime Minister Goh Chok Tong. The Johor-Singapore-Riau (JSR) growth zone is an attempt to develop economic collaboration at the subnational level by linking each partner's complementary factor endowments. The zone is a response to the end of the Cold War, the growth of economic regionalism globally, and higher protectionism in key export markets. The zones are a defensive stepping stone to further integration where participants can foster economic growth locally, despite external difficulties, and allay potential DFI diversion.[138] Within the context of a East Asian regional trade-production-investment network, Singapore has moved some inefficient, labour-intensive factories to Johor and Riau, particularly the Batam Industrial Park, in response to rising production costs and environmental concerns, while moving up to higher value added sectors with more capital and technology inputs. The JSR and Greater China zones are based on joint resource and infrastructure development, FDI and technology transfer for international production.[139]

Economic integration and interdependence in the Johor-Singapore-Riau zone are functions of *deliberate* government policy and market forces, a combination of the liberal and mercantilist policy options. Growth zones could enhance participants' economic growth as they represent a welfare-oriented approach to subregional economic integration.

There are still concerns over ROC restrictions on bilateral high technology cooperation and joint ventures as benefits are perceived to flow more to Taiwan, especially in the relocation of low-technology industries.

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John Ravenhill, "Economic Cooperation in Southeast Asia," *Pacific Review* 35/9 (September 1995), 854-55; "Johor may get more freedom in growth triangle," *Straits Times*, 8 January 1993, 1; "Batam, Riau islands to be developed," *Business Times* 18 May 1995, 6; "Johor economy capitalises on proximity to S'pore," *Straits Times*, 24 August 1995, 5; Jenny Lam, "Indonesia extends Batam land leases," *Business Times*, 13 June 1995, 10.

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Gourevitch, 55-65; Steve Chan, "National Security in the Asia Pacific," *Contemporary Southeast Asia*, 14/1 (June 1992), 27; Garry Rodan, "Reconstructing Divisions of Labour: Singapore's New Regional Emphasis," in Higgott et. al, *Pacific Economic Relations in the 1990s*, 236-46.

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Increased foreign investment and trade flows into these zones diminish national governments' ability to influence domestic economic policy but can strengthen economic performance. Growth zones, amongst states that previously had poor bilateral relations, suggests that territorial disputes and past problems are not a sufficient barrier to economic regionalism or a shared quest for prosperity. The voluntary creation of, and integration into, sub-regional growth zones are one response to economic shocks and perceptions of resultant economic insecurity. Loss of sovereignty may be the price paid for economic growth arising from growth zone participation.[140] (Appendix 4.1)

The JSR zone's creation was a result of both private sector and intergovernmental actions, incorporating liberal and mercantilist policies, designed to enhance economic growth. The zone would reduce the pressure for land and low-cost labour in Singapore while Johor and Riau benefited from higher investment flows, relocation of factories, and workforce upgrading. Singapore had close economic ties with Johor but 1979 plans for Riau and Batam were not brought to fruition until October 1989 when Suharto and Lee Kuan Yew discussed the relaxation of foreign investment regulations for Batam. Singapore and Indonesia signed two accords in 1990 to protect foreign investments and set the framework for economic development. A water supply accord was also signed in June 1991 while talks on harmonizing immigration and regulations continue. Incentives for companies intending to operate on Batam included: 100% foreign equity ownership for the first five years with 5% divestment afterwards; no further divestment if the operation is 100% export oriented; investment applications are processed directly in Batam and not Jakarta; and industrial parks are privately owned. Although Malaysian Prime Minister Mahathir Mohammed endorsed the growth triangle concept, Kuala Lumpur is often at

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Amitav Acharya, "Transnational Production and Security: Southeast Asia's Growth Triangles," *Contemporary Southeast Asia*, 17/2 (September 1995), 177-8; Warren Fernandez, "What Limits S'pore Growth," *Straits Times* 4 March 1995; Paul Jacob, "Pledge for Batam's Growth," *Straits Times*, 22 February 1994, 3.

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odds with Johor over the nature and extent of the bilateral relationship with Singapore, particularly perceived benefits favouring ethnic Chinese over ethnic malays (bumiputra).

The Riau island group's recent development history dates back to the 1971 establishment of the Batam Island Development Agency BIDA by Indonesia. In 1972, the Batam Island development plan was outlined in Jakarta with a Industrial Development plan unveiled in 1977. In 1978, Batam was island declared a bonded zone with a Comprehensive Development objective set for 2006. Growth zone activity speeded up after the October and December 1989 Singapore-Indonesia cooperation agreements. In January 1990, the Batamindo Industrial park (BIP) joint venture was set up between Batamindo Industrial Management (Singapore Technologies Industrial Corp-STIC and Jurong Environmental Engineering-JEE), Batamindo Investment Corporation, and the Salim Group In August 1990, a bilateral accord on economic cooperation and investment protection between Indonesia and Singapore was signed. By 1991, the Bintan resort, BIP, and Water Resources development projects were under construction. In April 1992, a MOU was signed for building the Southlinks Country club on Batam. In December 1994, the Bintan resort opened.

Riau's industrial parks are jointly financed by Singaporean firms, state enterprises and Indonesian companies. Zone creation improved transport and communications links with Batam while foreign investment has drawn migrant labour to work in the industrial parks, boosting trade, employment, population, and GDP figures. Firms in the zone can also rationalize operations (production and distribution) in a vertical and spatial division of labour. MNCs can retain higher value added functions in Singapore while labour intensive manufacturing relocates to other areas, although its neighbours also want to attract value-added manufacturing and services for their own economies. Highlighting the importance of geography, both Batam and Johor provide relatively cheap labour close to Singapore that MNCs can use. Although Johor is benefiting from investment and factory relocations,

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labour shortages, inflation and transport bottlenecks are negative externalities affecting the zone's north hub. Most private investments are in electronics assembly manufacturing, followed by tourism and hotel development. Rising affluence in Singapore also creates a market for tourist facilities in the zone, even if other cities or countries currently have more attractions. (Appendices 4.1-4.2)

The cooperation needed to ensure the successful launch of the JSR zone had to overcome historical tensions and perceptions about unequal economic benefits. Economic cooperation has usually been viewed differently among ASEAN states, especially in terms how fast, how much, and the effects on regional stability. The JSR zone reflected Singapore's aim of servicing its neighbours' industrialization by carving out a high value-added service and manufacturing niche within the global and international division of labour. It was not just a domestic political initiative taking advantage of perceived economic complementarities in response to exchange rate realignments, rising domestic production costs and export market protectionism; it would allow Singapore to move up the intraregional production hierarchy or division of labour as MNCs moved labour-intensive operations to cheaper locations in Johor and Batam. This geographic relocation helps such manufacturing remain competitive while allowing the PAP state to continue industrial policy to improve the investment climate for technologically advanced activities. After the 1984-1985 recession, the emphasis was shifted towards the tertiary service sector with Singapore becoming a regional business centre. A temporary wage freeze accompanied lower taxation as part of the reforms instituted by the PAP. The subsequent economic recovery highlighted continued dependence on manufacturing, especially electronics, and the attraction of Japanese FDI to the island.[141]

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Toh Mun Heng in Low, ed., 174-77; Garry Rodan, "Reconstructing Divisions of Labour: Singapore's New Regional Dynamic," in R.Higgott, R.Leaver, and J.Ravenhill, eds., *Pacific Economic Relations in the 1990s*, (St. Leonard's, NSW: Allen & Unwin, 1993), 222-6, 230-5; Bilson Kurus, "The ASEAN Triad: National Interest, Consensus Seeking, and Economic Cooperation," *Contemporary Southeast Asia*, 16/4 (March 1995), 413-8 and R.S Milne, "The Singapore Growth Triangle," *The Round Table*, 327 (1993), 291-303;

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The Johor-Singapore leg of the zone is more market driven than the Singapore-Batam leg as the latter project was given preferential incentives (100% foreign equity ownership with liberal divestment rules) by Suharto. The Riau islands, Batam, Bintan, and Karimun, are developed with different industrial profiles in mind. Twenty km from Singapore and occupying 200 sq km, the Batam Industrial Park attracts labour intensive electronics operations. Bintan is forty five km southeast and is slated to attract tourism and other light industries (textiles, apparel, furniture, plastics, toys, footwear, foodstuffs). Forty km southwest is Karimun where access to the Malacca straits makes it an ideal oil refining and ship repair centre, run by Sembawang and Salim Groups. The industrial parks are self-contained in terms of staff housing and power generation, with amenities built nearby. Government-linked Corporations (GLCs), like Batamindo, create industrial parks to attract MNCs to Batam. Batam islands (part of Riau province and 20 km away from Singapore) as an economic zone was originally intended for oil refining but now includes plan for tourism, aquaculture, agribusiness, and mining as soon as basic infrastructure is completed.(Appendix 4.2-4.3)

Natuna will be developed for the former while Bintan and Karimun is used for refining and processing. Current poor infrastructure means that industrial estates are self-sufficient for basic services, housing, and transport. Light and medium industries in Batu Ampar are to be connected to the harbor by road. Heavy industries are to be set up in Pantai Timur region of Batam. The Sepupang region is designated for agribusiness and wood processing while the Batam Industrial Park at Mukakuning, set up in 1991, is the site for labour-intensive assembly. Like Batam, Bintan Industrial Estate (BIE) will also have a central office to attract and coordinate all investment, service, transport, and production activities. An industrial park for oil refining, textiles, electronics, wood and

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Ahmed Osman, "KL forms triangle panel," *Straits Times*, 23 August 1990, 20; "Johor to set up high tech with S'pore" *Strait Times*, 5 March 1991, 15.

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metal products, and foodstuffs is to be completed by 1995. On the Johor side, Singapore is building a second causeway and extending the mass rapid transit system. The port at Pasir Gudang is expanding and labour intensive industries have moved to Johor to take advantage of lower cost labour that can be laid off when demand slackens. These firms chose not to upgrade product quality and decided to compete in terms of price.

Malaysia also welcomed investments in Johor with lower import tariffs, pioneer status for 7 year tax holidays, and GSP status. Tensions arise over inflation resulting from the Singapore influx, rural-urban disparities, and perceptions of unequal benefits to Singapore. In December 1994, Kuala Lumpur and Johor agreed on decentralized decision making for customs but complaints regarding administrative/bureaucratic delays continue. There are still concerns over pollution, long term property rights, incomplete infrastructure, and investor dissatisfaction in Batam. High labour turnover may restrict movement up the value-added chain as skilled workers leave while local inflation is high because of many items are imported. Transport costs are high as the container port is small compared to Singapore and cannot compete unless expanded against Singapore opposition. It may be necessary to use Batam as a gateway to the rest of Indonesia in future. Other emerging Asian economies, like Vietnam and China, could make Batam less attractive for investment. (Appendix 4.2-4.3)

Singapore's exports are concentrated in a few industrial sectors, with manufacturing contributing less to GDP and employment *growth* than financial-business services by 1992. Singapore is the hub of intra-ASEAN trade with over 80% of trade going through its port or airport since 1972. Much of this trade is between Singapore and Malaysia, followed by Indonesia and Thailand. In terms of trade intensity, complementarity, and country bias indices, the strongest relationship occurs between Singapore and Malaysia, with other ASEAN pairs having much weaker bilateral ties. Singapore's relatively large share of intra-ASEAN trade is derived from its entrepot and

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refining activities, along with economic complementarity with its neighbours. The other ASEAN states have competing, rather than complementary, economic structures, especially in resource and labour intensive manufactures.[142] The rising costs in Singapore, before and after 1985, was important in encouraging MNCs to move labour intensive operations to lower cost locations. For instance, Matsushita and Thomson exported audio equipment and colour televisions in Singapore from components produced in Malaysia, Indonesia, and Thailand. Sony and Seagate manufactures VCRs and disk drives in Malaysia and Singapore using parts sent from Japan and the US. In the growth zone strategy, the EDB wanted MNCs to retain core functions in Singapore while secondary operations relocated to Johor or Batam. Transnational cooperation between local firms and MNCs is supposed to help the former explore regional opportunities and ally with newly arrived MNCs.[143]

Like Hong Kong, Singapore was originally attractive to MNCs because of low cost labour and its strategic location. As labour costs rose, assembly operations moved to Johor and Riau while value-added functions remained in Singapore. With the availability of local engineering and management staff, government incentives, strong ties to local universities, polytechnics, government institutes, and the development of efficient transportation and telecommunications infrastructure, MNCs transferred technology to increase local value-added production, with Canon and Hewlett Packard conducting advanced wafer fabrication for semiconductors. US MNCs, like Connor, have made

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Hal Hill, "Australia's Asia Pacific Connections," in Dobson and Flatters, eds., 216-9 and Chia Siow Yue, 57-9. Singapore does not publish trade statistics with Indonesia, thus forcing a reliance on Indonesian data. Unlike Hong Kong, Singapore does not distinguish between domestic exports and reexports, which inflates Singapore figures and the discrepancies between partner country figures.

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Toh Mun Heng, "Extension of Partnership with MNCs," in Linda Low, ed., *Challenge and Response: thirty years of the EDB*, (Singapore: Times Academic Press, 1993), 157-61, 165-68; Paul Jacob, "Batam aims for $24b worth of investments," *Straits Times*, 1 April 1995, 1; ibid., "S'pore committed to investing in Indonesia," *Straits Times*, 2 June 1995; Chuang Peck Ming, "Growth in S'pore manufacturing has soared past 2 years," *Business Times*, 15 June 1995, 2; Gen Cua, "Indonesian exports to S'pore shifting more to processed goods," *Straits Times*, 22 June 1995, 3.

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Singapore the largest disk drive producer while AT&T has located its world design and manufacturing centre for cordless phones there. Electronics was the largest export sector for Singapore in the 1980s. Unlike Hong Kong and the other NICs, local firms were not the main contributors to growth, income, employment and capital formation. Singapore has relied on FDI to support its electronics sector as local firms have been weak. The government sought to attract MNCs given Singapore's small population and regional trading centre status. MNCs have moved the electronics industry away from labour-intensive assembly, with government support, towards advanced manufacturing from the 1960s to the 1990s. But the move upmarket will have to contend with keener export market competition and protectionism in developed markets. Dependence on Japanese and US capital goods may mean that growth zones will not lessen domestic reliance on imported technology or skills until indigenous R&D establishes a viable base.[144] (Appendix 4.4)

The PAP's regionalisation strategy, which the "growth triangle" is one aspect, reduced export dependence on key western markets and access growing Asian markets. Singaporean workers needed to improve their skills to remain competitive but the PAP's corporatist control of the NTUC stifled the employee innovation needed for productivity enhancement. Singapore, like other NICs, had to deal with external shocks affecting domestic wage levels; appreciating currency values, pressures for domestic political reform; developed country reluctance to transfer technology, and maintaining open markets. Previous advantages in low-cost labour, low currency exchange rates, access to mature technology, and mass production of standard industrial goods have been eroded as

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Michael Hobday, "Export Led Technology Development in the Four Dragons," *Development and Change*, 25 (April 1994), 334-35, 338 and 354-355; ibid., *Innovation in East Asia*, (Aldershot: Edward Elgar, 1995), 186-203.Texas Instruments and National Semiconductor were the first to set up semiconductor assembly operations before production of other products began (disk drives, printers, VCRs, telecommunications equipment). For 1980-1988, Singapore attracted US$2 billion in Japanese FDI and US$1.54 billion in US FDI in electronics. By 1991, there were more than 600 large MNCs operating on Singapore, total electronics output was US$16.6 billion with US15 billion in exports, and sectoral employment reached 124,000 people.

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the NICs face pressures to upgrade technological skills and the value-added component in their exports. In adjusting to recessions and international economic instability, the PAP attempted to retain labour intensive industries to stave off rising unemployment. The 1985-1986 recession undermined the assumption that diversification would help ensure economic stability. Capital intensive industries faced demand downturns and overcapacity that impeded productivity improvements. The PAP response to lower domestic wage costs only delayed the transition to less labour intensive production. By the 1990s, economic restructuring was focused on higher value added in both manufacturing and service sectors. Singapore would become a regional business and financial centre, establish foreign ventures to improve resource access, and diversify dependence on particular economic sectors.

The development of Singapore's electronics industry since 1968 was a crucial part of the PAP's EOI strategy. After independence from the Malayan Union in 1965, the PAP did not rely on the local bourgeoisie to lead industrialization. Unemployment was reduced as MNCs transferred production, technology, and spurred changes to the domestic education system. Upgrading of the domestic workforce is still a priority as Singapore moves up the value added production hierarchy. Singapore's contemporary challenge is to retain and add R&D activities in its quest for value added production and services. Taiwan's development experience in semiconductors (emphasizing flexible-lean manufacturing, a strong domestic PC industry, government support, and a skilled labour pool) serves as an example for Singapore. Wafer fabrication sites have been set aside for CSM, Tech Semiconductor, and SGS-Thomson in Woodlands and Tampines areas of Singapore. Rising currency values, land, and labour costs encouraged companies to move assembly operations to Malaysia (Johor, Penang, Kuala Lumpur) and Indonesia (Batam-Riau). These other locations are potential competitors for FDI and MNC technology transfers as they offer lower cost locations and more incentives than Singapore, although

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they lack adequate skilled labour pools. The EDB is focusing on helping reduce risk by joining joint ventures with MNCs in advanced semiconductors, petrochemicals, car parts, biotechnology, ceramics, and peripherals.[145]

To alleviate an undue reliance on the electronics sector, the PAP has encouraged more R&D establishments to develop value-added products. Since MNCs first began production in Singapore in 1967 to take advantage of GSP quotas, rising wage and production costs, along with higher worker skill levels, meant companies had to move offshore for labour intensive assembly or upgrade into other areas. Simple, standard semiconductor and consumer electronics production was replaced by printed circuit boards, computers, disk drives, and advanced semiconductors. Automated production and supporting industries were encouraged to locate near pioneer, greenfield R&D or manufacturing sites. This continuous pressure for economic restructuring affected production factors, such as higher wages, to encourage upgrading, well trained labour, economic diversification, and land infrastructure improvements. Land, water, and labour constraints limited domestic expansion of some types of manufacturing and services while external competition highlighted the need for local firms to develop forward linkages in order to retain competitive advantage. The offshore relocation of industries helped maintain the competitiveness of export processing operations, and highlights the PAP's internationalization strategy for Singapore companies. Thus, Singapore has retained R&D testing, value-added services, advanced electronics, automated manufacturing, oil refining,

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Cheah Hock Beng, "Responding to Global Challenges: the changing nature of Singapore's incorporation into the international economy," in Garry Rodan, *Singapore Changes Guard: Social, Political, Economic Directions in the 1990s*, (New York: St. Martin's Press, 1993), 102-4, 106-112, and 129-31; James Parsonage, *The State and Globalization: Singapore's Growth Triangle Strategy*, (Brisbane: Murdoch University Asian Research Centre Working Paper #23, February 1994), 1-4; "Johor keen to join triangle," *Straits Times*, 14 January 1990, 12; "Triangle to make Johor investment hub," *Straits Times*, 8 June 1990, 4; "Growth triangle to be private sector affair," *Straits Times*, 13 July 1990, 8; Sudarhiyoto, "Batam and Johor share in growth triangle," *Straits Times*, 26 June 1990, 1-2.

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and transport-distribution hub activities.[146] (Appendices 4.2 and 5.4)

For Singapore based electronics and garment firms, local capital is concentrated in the garment subsector while foreign capital dominated electronics. Domestic markets are targeted more by garment makers while electronics are usually exported. Electronics uses higher level technology while garments employ low-stable technology. Both sales and workforce size are larger for electronics firms, with a higher ratio of professional and technical workers. While electronics production is often used as inputs in other subsidiaries (being part of a local subcontracting network linked to regional or global production chains), this is less so for garments although there is more dependence on intermediaries by the latter. Garment makers exported to North America and Europe but electronics manufacturers supplied OECD, NIE, and ASEAN markets. In terms of market outlook, garment companies perceived more instability and lower sales than electronics firms.

Despite a tight labour market, electronics firms retained skilled workers with higher wages more than garment makers. The pressure for restructuring led more electronics than garment firms to set up offshore production because of lower wage or land costs, favourable exchange rates, and fewer labour problems. Garment makers are more inhibited by local market orientation, lower foreign capital involvement, and smaller company size such that Malaysia and Indonesia are the main sites for offshore factories. Japanese, American and European MNCs develop a regional division of labour in their component sourcing from Malaysia, Indonesia, and the NIEs. While electronics firms introduced more new technology than garment firms to reduce costs, improving output and new products were the main reasons for technological innovation. Garment companies

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Parsonage, 5-7; Patrick Guinness, "The State and Industrial Development: Johor Port and Pasir Gudang," in Harold Brookfield, ed., *Transformation with Industrialization in Peninsular Malaysia*, (New York: Oxford University Press, 1994), 188-209; Geoffrey Murray and Audrey Perera, *Singapore: the global city state*, (Singapore: China Library, 1995), chapters 3-9.

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are more likely to rely on overtime and subcontracting to adjust to low wage competition as these small, local firms are constrained from moving abroad and introducing newer technology.

Beyond the growth zone, Singapore has encouraged local firms to regionalise operations by setting up joint ventures in Bangalore, Suzhou and Wuxi. These sites would allow access to India's and Shanghai's high-technology companies. Keppel Corporation helped develop infrastructure to attract MNCs, such as Samsung and Advanced Micro Devices. Domestic indigenous companies are urged to ally with MNCs to penetrate foreign markets, share risk, and acquire needed skills or resources. European firms are enticed to Singapore as a gateway to the Asia Pacific region. The committee to promote enterprise overseas, set up in May 1993, was charged with suggesting means for creating overseas opportunities for local firms. An emphasis was placed on private sector-government cooperation in planning projects, industry upgrading, and staff training. Industrial investment incentives for Singapore's industrial parks include: capital investment depreciation; pioneer (high-tech) industry 5-10 year tax holidays; pioneer service firms tax holidays; expansion tax relief for established industry and service companies; productivity investment allowance; approved foreign loans and royalties; venture capital for overseas sites; tax exemption for Singapore ship registration; and warehousing tax reductions. Export incentives for manufacturing and value-added services include: limited tax holidays; concessionary rates on trading and consultancy; credit insurance for export risk; bank guarantees; soft loans for upgrading, expansion, and marketing R&D developments. By 1995, the PAP targeted the following for inward investment: biotechnology; chemical/plastic products; new food products; electrical power systems; robotics; process controls; pharmaceuticals; electronic components development; computer peripherals; telecommunications devices; ship repair; aerospace; automotive components; commercial

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entertainment services; finance; and semiconductors.[147] (Appendix 4.4)

The Malaysian and Indonesian Sides of the Triangle

In the case of Malaysia, its postwar industrialization was aided by the encouragement of FDI, from the UK and US in the 1950s to Japan since the 1980s, to spur trade and technology transfers. Japanese manufacturing investment in Malaysia during postwar industrialization was initially in establishing affiliates or joint ventures to supply the protected domestic market, due to Malaysia's ISI strategy until 1969 and foreign exchange restrictions in Japan. With the post-Plaza *Endaka* (yen appreciation), export market protectionism, political stability, lower land and labour costs, Malaysia became a favoured site for Japanese and Singaporean factory relocation. Aside from primary commodity exports (timber, rubber, natural gas, petroleum, edible oils), Malaysian exports of machinery, electrical products, and transport equipment grew after 1988. Imports of intermediate and capital goods in these areas and chemicals have grown since 1987 as Japanese MNC affiliates use Malaysia as an offshore manufacturing base for export processing and assembly. Such investments involve assembly type manufacturing of transport machinery, textiles, chemicals, basic metals, electronics and electrical goods. From 1957-69, initial Japanese investments were concentrated in steel, petroleum, chemicals, and wood products as inputs for export to Japan. Under Prime Ministers Tun Abdul Razak and Tun Hussein Onn, Japanese investment was sought for labour intensive industries and to diversify the domestic economy from primary resources. For their part,

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Barry Wilkinson, *Labour and Industry in the Asia Pacific*, (Berlin: Walter de Bryter, 1994), 6-8, 13-18, 20-5 and 46. Singapore had annual average GDP growth of 10% from 1965-80 and 6.1 for 1980-89. By 1990, growth reached 8.3%. For the same time period, Malaysia had 7.4, 4.9 and 9.4% annual average GDP growth while Indonesia grew 7, 5.3 and 6.5%. Hong Kong had 8.6, 7.1 and 2.5% growth while Taiwan grew 9.9, 8, and 5.2% during this time. The US and Japan, in comparison, had 2.7, 3.3, 0.9, 6.6, 4, 5.6% growth respectively. The GDP contributions of triangle participants also changed from 1965-89. Manufacturing's share, during this period, in Singapore, Taiwan, Hong Kong, Malaysia, and Indonesia went from 15 to 26%, 22 to 36%, 24 to 21%, 16 to 20%, and 8 to 17% respectively. Japan and the US fell from 34 to 30% and 28 to 17% during 1965-89. Within the merchandise export sector, textiles, primary commodities and raw resources became less important during 1965-89, as electrical machinery and transport equipment had a growing share of exports. In Singapore, for example, manufacturing employment in electronics constituted 34.4% of the workforce. Apparel, metal products, transport equipment and machinery made up 8.6, 8, 6.7 and 13.3% of the workforce respectively. This change reflects shifting comparative advantages as the NICs attempt to move up the value-added and technological hierarchy in the regional division of labour.

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Japanese firms (both MNCs and SMEs) sought resource security, lower land and labour costs, and market access through joint ventures with local companies. Under Prime Minister Mahathir Mohammed, investments also increased in trade, construction, real estate services, finance and insurance.

The Johor leg of the zone is predicated on relatively lower cost labour and land than Singapore, although investment and industrial relocation has raised factor prices. The relocation of manufacturing from Singapore and elsewhere reflects the transnationalization of production with intermediate imports (machinery, transport) being used in processing and assembly operations before final export to Japan, Singapore, and the US. Exports are largely in electrical goods, electronics (components, industrial, and consumer), textiles, and wood products for the US, Singapore, and the EU. Electronic components, such as semiconductors, are exported to the US, UK, Singapore, Taiwan, Japan, and Hong Kong. Textiles are sent mostly to the US, UK, Singapore and Germany. Interestingly, Malaysia's exports and imports of intermediate manufactures (SITC 5,6) to/from Japan, Singapore, and the US remained constant or decreased as a share of total exports and imports for 1993-1994. But machinery, transport equipment, and final manufactures (SITC 7,8) increased as shares of exports and imports that year. Since 1980, Malaysian trade with Singapore, other ASEAN members, South Korea, Hong Kong, Taiwan, China, the US, and Japan has increased absolutely and as a percentage of total trade. (See Appendix 4.2 and 5.4)

The external catalyst that affected strongly Indonesia's development strategy was the collapse of oil prices after 1979. The ruling Golkar party attempted to diversify the economy away from raw materials or commodities and towards more labour intensive manufacturing, with the aid of FDI incentives and infrastructure improvements. Developing the Riau islands, including Batam, Bintan, Bulan, and Karimun, in eastern Sumatra helped spread economic development and employment outside of Java by

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attracting companies from Singapore. After the October 1989 meeting between Lee and Suharto and Goh's December 1989 growth triangle announcement, two MOUs regarding bilateral investment cooperation and guarantees for Batam were signed on 28 August 1990. They formalized intergovernmental endorsement of Batam's joint development. A third agreement covering water supply was signed in June 1991. Industrial parks, tourism, and food processing projects have been developed through joint Singaporean-Indonesian ventures. These projects help alleviate cost pressures in Singapore by allowing firms to migrate to lower cost, labour abundant locations nearby. Comparing costs shows that, in 1992, land values for Johor and Batam ranged from US$30-55 per sq m, unlike Singapore's US$90-250 per sq m. Unskilled labour costs US$90, $150, and $350 per month in Batam, Johor, and Singapore respectively.

In contrast, Singapore's ties to Johor have been of longer duration as Singapore-based firms had already moved into southern Malaysia since the 1970s. By 31 August 1995, there were sixty-six companies operating at the Batamindo industrial park (Muka Kuning) on Batam producing a variety of component items and consumer goods. At least twenty-six are Japanese joint ventures or MNC affiliates. Twenty-three are from Singapore, five from the US, three from Germany, two from France, one each from Taiwan, Holland, Indonesia, Malaysia, South Korea, the UK, and Switzerland. Both Batamindo (500 ha) and Batu Ampar (28 ha) industrial parks are run as joint ventures by Singaporean GLCs and Indonesia's Salim group for light/medium industries, with Kabil-Batu (4000 ha), Sekupang (28 ha), Spinindo (100 ha), Seafront (150 ha) and Tanjung Uncang (200 ha) as the most recent estates that target export oriented production. 100% foreign, private ownership was also allowed in Batam, with 5% divestment afterwards only if less than 100% of its production was exported, unlike the rest of Indonesia where domestic equity must reach 51% in 15 years. Duty was applied only on raw materials used in Batam and exported later to Indonesia while applications

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could be done in Batam, not just Jakarta.

With much of zonal trade in intermediate goods, proximity reduces information, transport and time constraints in dealing with non-transparent or complex regulations. In both cases, geography and ethnicity are important to successful development. In both bilateral legs of the JSR zone, joint ventures and foreign invested companies have an ethnic Chinese component to facilitate business contacts and management expertise. The expansion of both zones spurred infrastructural improvements in all participants. Each zone became a transnational export processing zone targeting the world market, combined different resource bases, as investors accessed vertical complementarity in specialized production from the contiguous areas. Their informal nature carried less political and economic risk, compared to formal free trade areas which enlarge regional markets and discriminate against non-members, as disparities are not subject to contentious political negotiations. Singaporean trade and investment has changed Batam and Johor's geography, land, labour, and production markets.[148]

Batam is too far from the consumer base in Java and Sumatra for market access types of FDI but its location near Singapore, infrastructure projects, and imported labour helps make suitable for export processing. Johor has more developed infrastructure and can take pressure off Singapore facilities. Johor and Riau attracted activities requiring cheap land, labour including agribusiness, logistics management support functions, ship repair, tourism, and oil storage. Johor industrial estates (14) around Johor Bahru are concentrated in industries uncompetitive based in Singapore; chemicals, metal products, electronics, construction, machinery, and paper products. The port at Pasir Gudang is also

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Chia Siow Yue, *Motivating Forces in Subregional Economic Zones*, paper presented at the 30 November-2 December 1993 Economic Interdependence and Challenges to the Nation State conference in Honolulu, 1-3 and 10-27; ibid., *Economic Cooperation and Interdependence in the SIJORI Growth Triangle*, paper for the 27-28 October 1994 Economic Interdependence and Challenges to the Nation State conference in Singapore, 1-6, 8-15; T.S.Y Duk, "The Development of Greater China: prospects and challenges for ASEAN," *ASEAN Briefing*, (July 1993), 9-17; Richard Higgott and Richard Stubbs, "Competing conceptions of economic regionalism: APEC vs EAEC in the Asia Pacific," *Review of International Political Economy*, 2/3 (Summer 1995), 517-31.

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being upgraded to expedite reexport trade. Growing economic ties across the causeway has led to labour market and infrastructure bottlenecks that increase the costs of operations in Johor. Industries have moved outward to Pahang and Trengganu, just as firms have moved from the SEZs to other parts of the Pearl River delta. Batam has witnessed increased population, workforce participation, port traffic, and tourism while exports increased in electronic components, drilling equipment, metal products, telecommunications products, garments, food products, and wood products. Bintan, Bulan, Karimun have also attracted tourist resorts, aquaculture, oil refining and light industries. (Appendix 5.4)

As an example of state-directed development, based on perceived economic complementarities, the industrial development of Riau occurred on the basis of designation for selected activities. Future growth will depend on continued infrastructure improvements (housing, water, electricity, telecommunications, roads, airports, harbors), controlling the migrant labour population and worker turnover, streamlined bureaucratic procedures over land tenure and property rights, provision of health care, skilled worker training and recruitment. Continued policy coordination over investment regulations, customs procedures, managing inflation, perceived unequal benefits flowing to ethnic Chinese over ethnic Malays is still needed. Regulation of labour has increased costs in Batam such that its attractiveness is reduced. Developments in Batam and Johor also raise concerns about uneven development in both Indonesia and Malaysia. Still, the JSR triangle highlights how political decisions can build upon geographic proximity, complementary comparative advantages, and business links in fostering economic growth and interdependence.[149]

Thus, growth zones are part of an evolving regional division of labour that began

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Murray Hiebert, "Being Neighbourly: Johor finds Singapore too close for comfort," *Far Eastern Economic Review*, 27 March 1997, 64-65.

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with postwar industrialization and accelerated with the 1985 Plaza accord that revalued the Yen and other Asian currencies relative to the US dollar. Growth zones are examples of informal, subregional economic and political cooperation. This form of cooperation could foster a learning curve for the participants involved such that other zones could adopt appropriate policies and decisions. The development of hinterlands in these areas could enhance the performance legitimacy of ruling governments, assuming benefits were shared relatively equitably. The evolving division of labour has been driven to a considerable extent by substantial increases in direct foreign investment, first from Japan and the NICs, especially Taiwan and Korea, in Southeast Asia and coastal China. This change has brought about the emergence of new organizational forms whereby units of production have become linked in complex networks of interfirm alliances. The regional political economy is now composed of clusters of interrelated manufacturing sectors that are better described as "complexes" than as unconnected "industries." Production increasingly takes place in hierarchical networks that are built around production and technological innovation concentrated in Japan.[150]

Regionalised production rests upon economic and political bases and highlight how the diffusion of complex manufacturing can produce, in participants, high growth rates. It can strengthen interfirm linkages but also exacerbates concerns about industrial competitiveness. Japan is the lead capital investor for ASEAN countries and MNC DFI is increasing the proportion of intra-firm trade amongst these states. Higher trade flows between countries in these triangles are attributed to overcoming pervasive, private trade barriers and DFI's role in forging complementary economic structures between Japan, the

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Mitchell Bernard and John Ravenhill, "The Pursuit of Competitiveness in East Asia: Regionalisation of Production and Its Consequences," in David Rapkin and William Avery, eds., *National Competitiveness in a Global Economy*, (Boulder: Lynne Rienner, 1995), 103; "Singapore Survey," *Financial Times*, 29 March 1993, 1-5. For example, the Yen rose almost 40% between 1985-87, the New Taiwan Dollar rose by 28% the same period, while the Korean won revalued 17% from 1986-88.

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NIEs, and the ASEAN countries. The push for regionalised production can be traced to changing relative factor costs in Japan, Taiwan, and South Korea as land and labour costs increased during their respective EOI development phase. Currency revaluations for these countries after the 1985 Plaza Accord induced export-oriented firms to move part of their operations to lower cost locales. These events built upon the industrial ties fostered by Japan in the prewar and immediate postwar periods. The Plaza Accord also highlighted the political tensions associated with American concerns over its bilateral trade imbalances with these states. The perceived loss of competitiveness led to increased use of Super 301 legislation, VERs and NTBs to restrict exports to the US market, and improve reciprocal access to foreign markets.[151] (Appendices 4.1 and 5.1)

Growth zones were intended to improve efficiency, increase trade flows, technology transfers, and investment. Successful zone development required an infrastructure base to attract firms and required intergovernmental cooperation to further Singapore's mercantilist growth zone project. Such cooperation facilitates the development of tourist recreation facilities near to Singapore for the growing ASEAN middle class. The industrial estates built on a joint venture basis help catalyse industrial and agribusiness developments on Bintan, Karimun, Singkep, and Bulan. Regional business alliances and production strategies in the zone required close geographic proximity to a core city. This proximity and developed infrastructure facilitates communication and minimizes transaction costs. The Singapore-Riau leg required more interstate cooperation than the Johor-Singapore leg because previous historical and political problems hindered closer economic ties. Such cooperation to lower border

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Jane Khanna, "Asia Pacific Economic Cooperation and Challenges for Political Leadership," *Washington Quarterly*, 19/1 (Winter 1995-96), 267-69; "Singapore Survey," *Financial Times* 18 April 1994, 1-5. Bernard and Ravenhill find Tyson's definition of national competitiveness, defined as the ability of a country to produce goods and services that meet the test of international markets while its citizens enjoy a standard of living that is both rising and sustainable, to be persuasive. See Laura D'Andrea Tyson, *Who's Bashing Whom: Trade Conflicts in High Technology Industries*, (Washington DC: Institute for International Economics, 1992), 1; Bernard and Ravenhill, 104-5; Jack Hou et. al, "Pacific Rim Trade Prospects," *Contemporary Economic Policy*, 13 (October 1995), 12-21.

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barriers allowed labour and capital flows to exploit factor price differentials and illustrates the liberal policy aspect in growth zone development. Proximity to Singapore made firm relocation to Johor easier than to Batam prior to the 1989 growth triangle announcement. Johor also offers pioneer tax status, with a five year tax holiday, 100% foreign ownership where no local partners can be found, and a import duty free EPZ at Pasir Gudang. Thus, growth zones allow economies of agglomeration where different parts of a value chain are located in different locations.

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Chapter Eight: Taiwanese, Hong Kong, and Japanese Investment in the JSR Growth Zone

Growth zones are part of an evolving postwar, regional division of labour that accelerated after the 1985 Plaza Accord revalued Asian currencies relative to the US dollar. "The evolving division of labour has been driven to a considerable extent by substantial increases in direct foreign investment, first from Japan and the NICs, especially Taiwan and Korea, in Southeast Asia and coastal China. This change has brought about the emergence of new organizational forms whereby units of production have become linked in complex networks of interfirm alliances. The regional political economy is now composed of clusters of interrelated manufacturing sectors that are better described as "complexes" than as unconnected "industries." Production increasingly takes place in hierarchical networks that are built around production process and technological product innovation concentrated in Japan.[152] The regionalisation of production rests upon economic and political bases and highlight how the diffusion of complex manufacturing can produce high growth rates. It can strengthen interfirm linkages but also exacerbates concerns about industrial competitiveness.[153]

The push for regionalised production can be traced to changing relative factor costs in Japan, Taiwan, and South Korea as land and labour costs increased during their respective EOI development phase. Moreover, advances in microelectronics and communications technology facilitated flexible production such that SMEs could participate in regional production chains. Should these regional production trends

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Mitchell Bernard and John Ravenhill, "The Pursuit of Competitiveness in East Asia: Regionalisation of Production and Its Consequences," in David Rapkin and William Avery, eds., *National Competitiveness in a Global Economy*, (Boulder: Lynne Rienner, 1995), 103. The regional division of labour is a function of firm-level decisions, political and economic factors, not a deliberate government strategy.

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Bernard and Ravenhill find Tyson's definition of national competitiveness, defined as the ability of a country to produce goods and services that meet the test of international markets while its citizens enjoy a standard of living that is both rising and sustainable, to be persuasive. See Laura D'Andrea Tyson, *Who's Bashing Whom: Trade Conflicts in High Technology Industries*, (Washington DC: Institute for International Economics, 1992), 1.

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continue, state institutions and societies will be affected by changing production networks across borders. Currency revaluations for these countries after the 1985 Plaza Accord shock induced export-oriented firms to move part of their operations to lower cost locales. These events built upon the industrial ties fostered by Japan in the prewar and immediate postwar periods. For example, the Yen rose almost 40% between 1985-87, the New Taiwan Dollar rose by 28% the same period, while the Korean won revalued 17% from 1986-88. The Plaza Accord also highlighted the political tensions associated with American concerns over its bilateral trade imbalances with these states. The perceived loss of competitiveness led to increased use of Super 301 legislation, designed to improve reciprocal access to foreign markets. VERs and NTBs to restrict exports to the US market also increased.[154]

The Role of Taiwanese and Hong Kong FDI

The December 1993 Sudpolitik strategy (*nanjin zhengce*) combined Taiwan's trade and foreign aid policies in an attempt to achieve greater international recognition, through exports of investment capital. Shifting Taiwanese investment to Southeast Asia was designed to reduce asymmetric dependence on China, the mercantilist option, by improving relations with ASEAN countries. Taiwanese investment and trade with the mainland has made the island potentially vulnerable to economic coercion as some companies delayed expansion plans after the March-April 1996 cross-straits crisis. Taipei saw a need to coordinate economic relations with both China and ASEAN, in case future relations deteriorated because Taiwan still depended on the former for low cost production sites and has no ready alternative. Stronger bilateral ties would have to be based on commercial considerations, the liberal option, and improved diplomatic relations through high level contacts. Taiwan's capital, foreign exchange and trade surpluses had to

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Bernard and Ravenhill, 104-5. See also Thomas Bayard and Kimberly Ann Elliott, *Reciprocity and Retaliation in US Trade Policy*, (Washington, DC: Institute for International Economics, 1995).

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be recycled in search of lower cost production locations for polluting industries, access local markets and resources through suitable investment sites, seek out alternative transit points for cross-straits trade after Hong Kong's 1997 transition, and enhance Taipei's regional presence. ASEAN has been a traditional source of raw materials while investment has catalysed imports of Taiwanese capital goods.[155]

A recent comparison of the investment behaviour of both Taiwanese and Hong Kong MNCs in ASEAN indicated the former invested for market reasons, rather than due to investment incentives per se. Taiwanese investors are concerned about market access and a hospitable host environment. They use firm specific advantages to capture niche markets. Host countries often offer incentives to attract MNC operations to their jurisdictions and away from rival locations. But tax incentives are not the most reliable indicator for MNC investment destinations. Competing measures also cancel each other out. Hong Kong firms invested in ASEAN textile mills initially to avoid quota restrictions, and later to diversify market exposure. Lower land, labour and raw material costs are somewhat less significant than overall investor milieu for Hong Kong investors, although they are a factor in Indonesian food, electronics and Malaysian manufacturing. In contrast, Taiwanese MNCs have not been as active as Hong Kong investment in ASEAN due to postwar external investment restrictions and the KMT's national priorities. Malaysia offered incentives for value added activities and Taiwanese companies located there to exploit unused export quotas, reliable infrastructure, and institutional support. Growth zones are *also* a commitment, by participants, to be internationally oriented, encourage a more efficient allocation of resources, and promote supra-national coordination or

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Gerald Chan, "Sudpolitik: the political economy of Taiwan's trade with Southeast Asia," in *Pacific Review*, 9/1 (1996): 96-113; Ralph Clough, "The PRC, ROC, and the Overseas Chinese," *Journal of Northeast Asian Studies*, 12.3 (Fall 1993), 43-7; Stephen Parker, "Trade and Investment in Southeast Asian Development," ibid.; and Chen Hung Yu, "Taiwan's Economic Relations with Southeast Asia," in Gary Klintworth, ed., *Taiwan in the Asia Pacific in the 1990s*, (St. Leonards, NSW: Allen & Unwin, 1994), 114-33. Sudpolitik has focused on enhancing Taiwanese linkages with the Subic Bay free trade industrial zone and the Batam industrial park.

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cooperation. (Appendix 5.2)[156]

Just as Taiwanese firms invested in Southeast Asia, Hong Kong companies also invested in the region and not solely concentrated on China. Restructuring in Hong Kong's economy is reflected in the movement of firms to lower cost sites in southern China, with a decline in manufacturing's share of GDP and increase in the tertiary service sector (distribution, wholesale, trade, social, financial). The relatively low level of R&D in manufacturing may have hindered ascending the value added hierarchy. External investment in Hong Kong have made it a regional business operations centre and encouraged the movement of labour intensive industries elsewhere. Hong Kong's renewed entrepot role could reduce incentives for locally based companies to technologically upgrade because they may reduce costs by shifting operations to cheaper locations. Like Taiwanese FDI, Hong Kong investment is targeted to exploit sectoral advantages in the host economy. Investment in Indonesia is concentrated in areas utilizing low cost land, labour, and natural resources: textiles, construction, hotels, chemicals, and metals. The focus in Malaysia is on textiles, foodstuffs, chemicals, electronics, wood products, and fabricated metal. In contrast, Hong Kong investment in Singapore's manufacturing has declined as Singapore restructured away from labour intensive assembly. Commerce and financial-business services are the sectors targeted for investment. Both Hong Kong and Taiwanese FDI in Southeast Asia are spatially and sectorally specific to the host economies' comparative advantages.[157]

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Reginald Kwok, "Hong Kong Investment in South China," in LaCroix et. al, eds., 71-72. See also K.K Seo, "Economic Reform and FDI in China before and after Tiananmen," in Lane Kelley and Oded Shenkar, eds., *International Business in China*, (London: Routledge: 1993), 109-35.

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Paul Evans, "Economic and Security Dimensions of the Emerging Order in the Asia Pacific," in David Wurfel and Bruce Burton, eds., *Southeast Asia in the New World Order: the political economy of a dynamic region*, (London: Macmillan Press, 1996), 5-7; Lee Tsao Yuan, "Hong Kong and Singapore: Government and Entrepreneurship in Economic Development," in Joseph Cheng, ed., *Hong Kong's Economic Development: Fifty Years After*, (Hong Kong: Hong Kong University Press, 1995), 632-55; chapters on NIC industrial policies by Hong, Nyaw, and Wong in Edward Chen et. al, eds., *Industrial and Trade Development in Hong Kong*, (Hong Kong: University of Hong Kong Centre for Asian Studies, 1991).

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Singapore and Hong Kong's participation in the JSR and Southern China zones reflected changing regional and international structures in finance, production, security, and technology. The diffusion of technological knowledge and production across borders is underpinned by continued US diplomatic-military presence in Asia Pacific while accumulated capital from Hong Kong, Taiwan, Singapore, US, and Japan is invested in China, Malaysia, and Indonesia. Just as the China zone is reliant upon the *political* decision by the CCP to begin economic reforms in Guangdong and Fujian, the JSR zone could not have developed without the bilateral cooperation accords between Singapore-Malaysia and Singapore-Indonesia. The infrastructure provision by Singapore GLCs in joint venture with Malaysian and Indonesian partners may be a quid pro quo for secure water supplies and provision of lower cost land and labour.

Singaporean investment in the zone creates a hinterland for Singapore-based firms (local and MNC) to move uncompetitive operations to nearby locations. The importation of labour in Riau provides workers for the industrial parks while less stringent foreign ownership rules allow MNCs to control operations more easily. Interestingly, the companies that operate the joint ventures are known to be host-country ethnic Chinese companies. Their cooperation with Singaporean Chinese and MNCs may well affect Malay and Indonesian perceptions of ethnic minority and transnational economic dominance. The future of the JSR triangle will depend partly on the provision of low-cost land, labour, and infrastructure improvements, especially infrastructure financing, property rights protection, manpower development, and support for SMEs. Support for the zone will also turn upon how Malaysia and Indonesia perceive the relative balance of benefits deriving from triangular growth. To date, Singapore is seen as the main beneficiary of increased economic interdependence with Johor and Riau, while the latter are perceived as having

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more limited gains from the zone.[158] (Appendices 5.1-5.2)

Japanese Capital in the Growth Zone

Japan's investment in manufacturing in other Asian countries in the years 1986-1989 exceeded the cumulative totals for 1951-1985. This DFI was not concentrated in resource extraction and processing so much as manufacturing for export. Decisions regarding production location are no longer, or primarily driven by cost considerations. Firms determine their locational strategy in order to be close to technology sources, conducive business environs, and major markets as well. This form of regional industrial integration, largely interfirm alliance driven, is based on mutually beneficial and hierarchical relationships. Northeast and Southeast Asian production is linked by a network of firms in vertical and horizontal types of production, exchange and distribution chains. The reliance on Japanese technological inputs places other Asian suppliers in a hierarchical relationship to Japanese companies. Networks as an organizational form require ongoing interaction, coordination, and information sharing. Still, technology transfers are usually accompanied by reluctance to transmit the very latest products, a tendency to allow access to mature technologies, and concerns about skilled employee flight, either to competitors or their own firms.[159]

Japanese electronics manufacturing companies established factories in Thailand, Malaysia, and Singapore since the Plaza Agreement in 1985, responding to their own global strategies and the incentives offered by local governments. The makers of

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Michael Hobday, *Innovation in East Asia*, 137-60; Chia Siow Yue, "FDI in ASEAN Economies," *Asian Development Review*, 11/1 (1993), 89-101; K.C Ho, "Singapore: Maneuvering in the Middle League," in Gordon Clark and Won Bae Kim, eds., *Asian NIEs and the Global Economy*, (Baltimore: Johns Hopkins University Press, 1995), 114-18, 120-4, 127-30, 132-6, 138-47; Pang Eng Fong, "Staying Global and Going Regional: Singapore's Inward and Outward Direct Investment," in *The New Wave of FDI in Asia*, 117.

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Bernard and Ravenhill, 105-110; Rob Steven, *Japan and the New World Order: global investments, trade, and finance*, (London: Macmillan Press, 1996), 54-69. Japanese and Korean high technology firms cooperate in standardized electronic components, like Samsung and Toshiba in semiconductors, to take advantage of Korean skills in capital intensive mass production. Korean companies receive Japanese technology and quality control expertise.

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semiconductors, TV sets, and electronic parts establish, through their investments, an export base in the region. Japan has thus played a key role in supplying technology and FDI to the NIES and ASEAN countries in their EOI phase of development. For Japanese production in Hong Kong, Singapore, Malaysia, South Korea, Taiwan, Malaysia, and Thailand, many critical components are still sourced from Japan as "the development of high technology is facilitating a corporate strategy in which the competitive edge is maintained by concentrating on the R&D activity of critical parts in the home country and by locating manufacturing activities in individual places close to individual markets."[160] However, the level of technology transfer and skill acquisition by local staff is limited by the reliance on imported parts or resources. Local production and learning may be limited to basic processing, packaging, and assembly. Higher value added processing and testing by advanced machinery installed by Japanese management does not facilitate technical improvement by indigenous personnel.[161] (Appendix 5.1-5.2)

Globalization by Japanese MNCs emphasized lowering production costs and maximizing market access through FDI, production alliances, joint ventures, and regional outsourcing. Japanese DFI from Japan is a source of structural change in home and host countries. In the postwar period, early foreign investments were concentrated in foodstuffs, textiles, chemicals, and later, heavy industries (shipping, iron and steel). Electrical and transport machinery became more important in the 1980s as Japan's exports became more technology and capital intensive with yen appreciation. Higher production costs (particularly after the oil shocks), export market protectionism in the form of NTBs (OMAs and VERS), domestic environmental pollution restrictions, and yen revaluation

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Fumio Kodama, "Emerging Trajectory of the Pacific Rim: Concepts, Evidences, and New Schemes," in Simon, 41-42 and Denis Fred Simon, "The Orbital Mechanics of Taiwan's Technological Development: an examination of the gravitational pushes and pulls," in Klintworth, ed., 195-215.

161

Shoichi Yamashita, "Japan's Role as a Regional Technological Integrator and the Black Box Phenomenon in the Process of Technology Transfer," in Simon, ed., 347 and 350-51.

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accelerated production away from labour intensive manufactures towards capital or technology intensive industries. Many firms divided their production process into a regional division of labour and located them where it was cost-efficient. The leading DFI sectors included electrical, transport machinery, and metal products. Host NIE, and later ASEAN, countries also sought to emulate Japan's export oriented industrialization with labour intensive, assembly or processing operations operated by MNCs solely, or in joint ventures. The search for cheaper production costs helped regionalise Japan's political economy through vertically integrated production networks and the transmission of investment capital abroad.

Japanese companies dominate relationships with regional trading partners due to its dominance in the provision of FDI, development aid, and technology subsystems. For example, Japanese investment in auto and electronics production geographically spreads subsystem assembly, with such output deemed to be of domestic origin, and the underlying materials, component, and production technologies' availability are regulated by leading Japanese producers. Firms in the rest of the region chafe at this dependent relationship but cannot easily develop their own technology supply base, being largely dependent on Japan. A weaker American technology base and problems with Japanese market access are additional constraints to the development of alternative Asian technology suppliers. Asian mid-technology firms want to enter high value added market sectors that demand innovation but are limited by depending on Japanese competitors for core technologies. Their restricted access to critical components delays the internalization of value added technology. They have to define new market niches, make differentiated high quality goods, and create proprietary standards for open systems. Korean and Taiwanese companies do not yet have such market breaking technology, marketing skills, their home markets are too small, the Japanese control many production system technologies, and China's market is demanding low price, standard products. They also face rising domestic

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production costs and barriers to foreign technology access as they approach the technological frontier. Potential conflict could arise from concerns about technological dependence and asymmetric market access. South Korea and Taiwan want to move up the Asian industrial hierarchy while China's development will be affected by its position in the regional production network. (Appendix 5.3)[162]

Part of Malaysia's industrial diversification strategy away from primary commodities involves attracting electronics assembly and processing operations to its jurisdiction. In particular, semiconductor and consumer electronics production are a key part of the 1986 Industrial Master Plan (IMP). The former was based largely on wholly owned subsidiaries, the latter on joint ventures, and both sub-sectors provided employment but low value added as the United Malay National Organization (UMNO) government maintained a low wage labour policy. As skilled labour shortages increased in the late 1980s and capital intensity increased for standard commodity chips, Malaysia had to develop a larger pool of skilled workers in application specific semiconductor fabrication. Consumer electronics assembly and component production was predicated on attracting companies from Japan, Singapore, Taiwan, Hong Kong, Europe, and the US for labour intensive operations due to exchange rate revaluations and rising production costs elsewhere. Like Singapore, Malaysia has to nurture domestic firms in the information technology sectors, through fiscal R&D incentives and enhanced technical education, in order to alleviate strong dependence on foreign investments and develop backward

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John Zysman and Michael Borrus, "Lines of Fracture, Webs of Cohesion: Economic Interconnection and Security Politics in Asia," in Susan Shirk and Christopher Twomey, eds., *Power and Prosperity: Economics and Security Linkages in Asia Pacific*, (New Brunswick: Transaction Publishers, 1996), 77-95; Tai Ming Cheung, "The Interaction Between Economics and Security for China's External Relations," in ibid., 120-36; Michael Donnelly and Richard Stubbs, "Japan and Southeast Asia: facing an uncertain future," in David Wurfel and Bruce Burton, eds., *Southeast Asia in the New World Order: the political economy of a dynamic region*, (London: Macmillan Press, 1996), 170-73. Appreciating currencies, loss of GSP status, and rising domestic land/labour costs in Japan and the NICs helped catalyse the FDI push into southeast Asia in the late 1980s. Host governments also helped by easing FDI regulations. Imports from Japan rose more than exports to Japan as ASEAN members' trade surplus with Japan became a deficit from 1985-93.

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linkages to local suppliers.[163] (Appendix 5.4)

By 1992, Japanese manufacturing investments clustered in electrical goods, electronics, transport equipment, metals, and chemicals to increase local market share, supply Japanese parent firms, export to third countries, and utilize lower cost production factors. These sectors led in terms of paid up capital, sales, and profits. SMEs in Japan also followed their MNC partners into Malaysia to reduce costs and increase local content. With the establishment of EPZs in the early 1970s, Japanese investment in wholly owned subsidiaries became more export oriented, taking advantage of cheaper domestic production costs in wood products, textiles, and electronics/electrical goods. The Heavy Industrialization Drive that began in 1980 attracted Japanese investment in transport equipment and steel fabrication, electronics and electrical goods manufacturing. This took place during the post-Plaza yen appreciation through government supplied fiscal incentives for export-oriented affiliates. Subsidiaries in Singapore, Hong Kong, and Taiwan also invested in Penang, Johor, and Kuala Lumpur as part of their regional production strategies with transport equipment, electronics, and metals dominating domestic production. Continued economic growth in 1986-96 meant that rising wages, land prices, and inadequate infrastructure affected future growth prospects. Not only did yen appreciation push Japanese firms towards Malaysia, Singapore's regional headquarters strategy and rising domestic costs meant that companies there moved declining, labour intensive operations to Johor and Batam while capital/knowledge intensive activities stayed on the island within a company network of (local and Japanese) subcontractors

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Wong in Simon, 118-121; Huff, 339-44; Pang Eng Fong, *The New Wave of FDI in Asia*, 118-26; Philippe Regnier, "Spreading Singapore's Wings Worldwide: A review of traditional investment strategies," Pacific Review, 6/4 (1993), 305-12. Tran Van Tho and Shujiro Urata, "Technology Transfer in the Pacific Basin," in Simon, 298-301 and 305-7; K. Fukushima, "FDI and Regional Industrial Restructuring in Asia," in *The New Wave of FDI in Asia*, 7-11, 20-21; David O'Connor, "Electronics and Industrialization: Approaching the 21st century," in Jomo K.S, ed., *Industrializing Malaysia*, 210-223, 227-32; Ismail Salleh, "FDI and Technology Transfer in the Malaysian Electronics Industry," in *The New Wave of FDI in Asia*, 134-58; James Kynge, "Malaysia: Foreign Companies looked to for expertise," *Financial Times*, 3 December 1996, 1. A government agency, Khazanah Nasional, promotes links to 19 foreign (Japanese, US, European) firms for critical technologies, improve exports, and lower the current account deficit.

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supplying the Japanese parent.

For Japanese and western MNCs, FDI motivations and determinants include rising domestic production costs in the source countries, environmental pressures to relocate polluting industries, secure access to needed resources, financial liberalization in both host and source states, securing market access, and appreciating source country currencies that make overseas investment financially attractive. East Asian countries have been attractive sites due to resource or factor endowments, growing domestic markets, strategic geographical location (for Hong Kong and Singapore), suitable infrastructure, favourable taxation and investment policies, and political stability. These factors were exacerbated by rising real exchange rates, domestic labour costs, and trade liberalization (following US complaints of bilateral trade imbalances) that led to declining tariff protection. For example, industrial estates in Johor have been set up to attract manufacturing investments from foreign companies. The Johor State Economic Development (JSEDC) has built these sites at Tebrau, Senai, Pontian, Mersing, Pagoh, Kluang, Pasir Gudang, Tanjung Langsat, Yong Peng, Tangkak, Hitam, Tongkang Pecah, Parit Raja, Tinggi, and Gading. Developed country sites (US, UK, and Europe) have been used to access foreign technologies and form strategic alliances.[164]

Japan's DFI since the September 1985 Plaza Accord has been accompanied by an increasing share in the manufacturing sector, particularly materials processing, machinery, electronics, and transport equipment. Much of this investment has flowed to developed countries in Europe, North America, and selected Asia Pacific states. Rising land, labour, and exchange rate costs facilitated the formation of networks, consisting of Japanese firms and their affiliates or partners, as basic materials industries were replaced by micro-electronics aided processing and assembly industries after the 1973 and 1979 oil shocks.

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Chia Siow Yue, 70-80; Frank Flatters and Richard Harris, "Trade and Investment: Patterns in the Asia Pacific Rim," in Dobson and Flatters, eds., 113-39; cf. fn 10.

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They supply Japan and other developed markets with goods and services made offshore, using components from network firms overseas and/or Japan. Host country production is also sold locally. Yen appreciation also makes local procurement and sales economically attractive, along with improving inter-industry linkages. In the late 1980s, local sales by Asian affiliates increased, compared with a decline in Europe. Local procurement in the resource sector is higher than in manufacturing on average, with imports from Japan being high in machinery related areas and electronics. Japanese manufacturers also imported more from ASEAN automotive, electrical machinery, electronics, and machinery facilities than from the NIEs.

Japanese NIE affiliates have higher local procurement and Japan import ratios compared to those in ASEAN, which has a higher import ratio from third (usually Asian) countries. This greater level of local procurement is concentrated in resource based industries where imports from Japan are higher in machinery industries, such as transport. Export to third countries and within Asia is high, particularly in electronics. Supporting industries in Asia are not as extensive as North American and Europe, such that the production process is completed elsewhere. Asian markets cannot absorb all local production, with affiliate exports sent off to other regional subsidiaries. Japanese affiliate exports and imports to/from Japan are largely concentrated in North America and Asia, in general machinery, electronics, transport, and precision equipment. The high concentration of procurement and sales in these selected sectors is indicative of strong intra-firm trade. In electrical machinery and electronics, intra-firm trade is vertically integrated while becoming more horizontal in telecommunication and computers. In Malaysia for example, Japanese affiliates set up export-oriented networks around FTZs and EPZs. Local subsidiaries increased local procurement, especially in electronics and transport machinery. These industrial networks in Malaysia have forged backward and forward linkages through domestic sourcing and sales. Needed imports came from parent companies in

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Japan and Singapore, led by electronics, pharmaceuticals, and transport. Exports of processed food, electrical goods, and ceramics were the top items for Japan and Singapore. (Appendices 4.4 and 5.4)[165]

DFI from advanced to developing countries, globalization of production, and a changing division of labour forced NIEs to upgrade their industrial structures. Within each growth zone, Hong Kong, Taiwan and Singapore moved their labour-intensive industries offshore. Hong Kong and Singapore shared characteristics of initial labour-intensive exports, followed by quality improvements through imported technology, and worker skill upgrading for future higher value-added goods. As exports expanded, national income and investment capital accumulated. China and Southeast Asia are the destination for these NIE investment flows as NIEs transfer technology, capital, and production in response to changing comparative advantages and external economic shocks Also, regionalisation and technology may not necessarily reduce the role of the state. Regional manufacturing and research activities produces a hierarchy based upon functional proximity to certain production locales.[166]

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Takeshi Aoki, "Integration in the Asia Pacific Rim," in Simon, ed., 335-77; *World Investment Report vol.1-Asia Pacific*, 143-9, 159-68, 263-70; Miyohei Shinohara, "The flying geese model revisited: FDI, trade in machinery and the boomerang effect," *Journal of Asia Pacific Economy*, 1/3 (1996), 412-418; James Parsonage, 7; John Helliwell, "Asian Economic Growth," in Wendy Dobson and Frank Flatters, eds., *Pacific Trade and Investment: Options for the 1990s*, (Kingston: John Deutsch Institute, 1995), 31-6; Narendra Aggarwal, "Record in manufacturing investments last year," *Straits Times*, 30 January 1995, 1. The Singapore-centred growth triangle represents the next stage of state-sponsored development, reflects the transformation of the island-state from offshore production zone to a regional business hub, and the EPC's strategic economic plan to make Singapore fully developed by 2030. The GT aims to exploit regional and international economic change in maintaining a strong niche within the Asia Pacific division of labour.

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Bernard and Ravenhill, 122-123 and 126.

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Chapter Nine: A Comparative Overview of Growth Zone Development

In evaluating the hypotheses set out in chapter two, there is support for Hypotheses One and Five as Hong Kong and Singapore-based firms moved without industrial policy hindrance to lower cost locations. There is little or no support for protectionism and keynesianism as policy responses (Hypotheses Three and Four) in both cases. Hypothesis Two has limited support because currency devaluations occurred but not all participants increased their use of subsidies and trade regulations. Hypotheses Six and Seven are also mixed regarding whether economic interdependence affects the incidence of conflict over resources and markets. The Greater China zone exhibits economic interdependence **and** ongoing political tensions. The JSR zone has even less political tension and continued strong, economic ties. Moreover, the empirical evidence shows increased trade and investment flows (FDI, exports, imports, reexports) between growth zone participants *after* 1985.

Production profiles, expressed as manufacturing and tertiary sectors's in participating economies changed *during* 1985-1997. Employment in labour intensive manufacturing decreased for Hong Kong, Taiwan, and Singapore while services increased in importance. There was a corresponding growth in light manufacturing employment for Johor, Batam, Guangdong, and Fujian as transplanted subsidiaries began operations there. The available data on transplanted firm size and type indicate the presence of transnational production networks utilizing a regional division of labour. Initial investments from core cities into their hinterlands were for *production relocation*, then later for *product and market integration*. *Political decisions* in China, Taiwan, Singapore, Malaysia, and Indonesia were **crucial** to the establishment of these subregional economic zones. Without the *requisite political cooperation* to support the cross border trade and investment, closer economic ties between zone participants would **not** have taken place. There is also mixed evidence regarding whether MNC subsidiaries located in both zones are part of

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buyer (BGCCs) or producer driven global commodity chains (PGCCs).[167]

The two case studies reveal aspects of the liberal, neoclassical and mercantilist options, more than the keynesian and protectionist options. Trade, investment, and industrial relocation in both growth zones was based on comparative advantages and *supportive government policies*. Taiwan and China have policy limits on cross-straits economic and political relations, due to national economic security concerns, that may be considered mercantilistic. Neither Hong Kong and Singapore adopted protectionist or keynesian policies to deal with external economic shocks. When the participants' domestic production profiles changed in response to *external shocks*, subregional growth zones became part of the changing regional and global production, credit, and knowledge structures. Growth zone development suggests that *enmity has decreased while amity has increased as closer economic ties developed*. But zonal development also affects participants' national economic security and social cohesion. Asymmetrically distributed costs and benefits will favour some social-ethnic groups more than others and could cause resentments while some governments worry about asymmetric interdependence. The diffusion of state authority that aided zone formation is more prominent in China and Malaysia than others as state authority over markets is *unevenly* spread.

Although East Asian states still intervene in their domestic economies and have a role in structuring intra-zone relations, the core cities in each zone provide the essential investment capital, production facilities, and certain technologies.[168] Paradoxically, growth

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Kasra Ferdows, "Making the Most of Foreign Factories," *Harvard Business Review* (March-April 1997), 73-88. In both growth zones, the factories moved from higher cost to lower cost locations have been of the offshore, source, and server varieties. Those remaining in Hong Kong, Taiwan, and Singapore are more of the contributor, outpost, and lead factory types. The latter have great site competencies (product research, process development-improvements, production responsibility) than the former. Ferdows cites Hewlett Packard's factory in Singapore as an example of an upgraded facility.

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Richard Applebaum et. al, "Commodity Chains and Industrial Restructuring in the Pacific Rim: Garment Trade and Manufacturing," in *Commodity Chains and Global Capitalism*, Gary Gereffi and Miguel Korzeniewicz, eds., (Westport: Greenwood Press, 1994), 188-91, 194-5, 198-202; Gary Silverman, "Capitalist Retooling," *Far Eastern Economic Review* 15 May 1997, 80-82; C.J Lee, *The Economic Transformation in Mainland China and its Impact on the Taiwan Economy*, unpublished paper, 3-22, 28-36; Richard Rosecrance, "The Rise of the Virtual State," *Foreign Affairs*, 75/4 (July/August 1996), 45-53, 56-61. The virtual state seems to supersede the trading and warring state, although the advent of such an entity, the declining importance of land based resources and fixed productive assets appears overstated. A virtual corporation has headquarter functions but few manufacturing facilities, a head with no body. Finally, both Singapore and Hong Kong are touted as examples of the post-cold war virtual state where economic competition between countries is as important as

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zone success in attracting and providing investment capital illustrates how markets have become more powerful and affect economic development. MNC decisions reflect their relational and indirect structural powers over governments. Their choice of production and investment locations reveals their preferred types of host investment regimes although global commodity chains *obscure* whether relative comparative advantage or corporate strategy is more important.[169] The shift from manufacturing to services and the developed-less developed asymmetry within zones highlights the relative weakness of domestic labour against exploitation. Both labour and the environment are subject to poorly regulated markets in both zones. China is a famous example of a bureaucratic-authoritarian capitalist state undergoing modernization, by re-entering the global capitalist economy, with a dependent bourgeoisie and state capitalist elites.[170]

Similarities and Differences amongst growth zones

Subregional economic zones are geographically contiguous areas involved in an economic integration process with flows of goods, investment, knowledge, and people.

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military and political conflicts. Virtual states are supposed to emancipated from relying on producing goods derived from the land, determine an overall strategy, invest in its people, and has downsized their territorially based production capacity. They are also homes to virtual corporations, that locate production facilities around the world, and negotiates with foreign and domestic capital, and labour, to establish investment and/or production in its jurisdiction as manufacturing becomes transnationalized and land becomes less valuable than technology, knowledge, and direct investment. A virtual state is a country that relies on mobile factors of production, recognizing that production does not always take place in its territory. Income is derived from high value services and manufacturing with economic efficiency attained through productive downsizing or relocation. Both city-states in this dissertation are considered to be virtual states because corporate downsizing and relocation has reduced production capacity.

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Barry Buzan argued a regional security subsystem consists of a group of states whose primary security concerns are linked together sufficiently closely such that their respective national security cannot be realistically considered apart. Kristin Lord points out that economic relations can be both cause and product of the existing security environment. It can stabilize relations or exacerbate them. Borrowing from Wolfers, she defines economic security as the absence of threats to acquired economic values and the absence of fear such values will be attacked. See Buzan, People, States, and Fear, 190; ibid, in Andrew Mack and John Ravenhill, eds., *Pacific Competition-building economic and security regimes in the Asia Pacific region* (Boulder: Westview, 1993), 130-151; Kristin Lord, *Conceptualizing Economic Security as a National Security Problem*, paper presented at the March 1997 International Studies Association Toronto conference, 4-7.

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Susan Strange, *The Retreat of the State: the diffusion of power in the world economy*, (New York: Cambridge University Press, 1996), preface, 17-26, 44-52, 73-85, 91-103, 126-27; Anita Chan and Robert Senser, "China's Troubled Workers," *Foreign Affairs*, (March/April 1997), 104-117; James Mittleman and Mustafa Kamal Pasha, *Out from Underdevelopment Revisited*, (London: Macmillan, 1997), 150-53, 170-79. See also ibid., *States and Markets*, (London: Basil Blackwell, 1988) and, with John Henley and John Stopford, *Rival States, Rival Firms*, (New York: Cambridge University Press, 1991). In both triangles, the core city-states, and Taiwan, appear to be exporting their development expertise to their larger neighbours and encouraging the further development of information technology industries as part of their post-Fordist restructuring. Hong Kong, Taiwanese, and Singaporean capital exports seem to follow the earlier example of Japan. But the Malaysian and Indonesian states play important roles in producing/controlling ethnic identities, consumption patterns, and space for dissenting voices.

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They are created by private actor and government actions to foster economic growth, exploit comparative advantages in factor endowments and location, help construct a subregional identity as 'an imagined community' for ruling elites, and alleviate perceived economic insecurity. Although transnational production and investment is often attributed to Japanese, Korean, Taiwanese, and Overseas Chinese sources, important differences in their structure emanate from specific, local conditions and should not encourage the assumption of further regional integration. The product cycle-flying geese argument sees transnational production across regions as homogeneous over time and space but must consider the agents or processes that allow industries to migrate. Variations in state-society relations and social organization of production are also downplayed.[171]

Growth zones allow Hong Kong and Singapore to adapt to changing production, finance, and technology structures. Both Hong Kong and Singapore, in their respective growth zones, have trade and investment ties with neighbouring peripheral hinterlands due to rising costs and despite political boundaries. Growth zone creation is also facilitated by geographic proximity, cultural-linguistic affinity, and an accommodating policy environment. Hong Kong and Singapore's key roles in their zones highlight the agency of local and transnational capital. This form of hegemonic globalization is characterized by transnational production, through factory relocation, and deregulated international capital flows. Industrial production networks, in both cases, are operated through urban nodes that control capital and knowledge accumulation. But the extent of governmental cooperation or leadership in the creation of the Southern China triangle is less formal than the efforts in the JSR zone. The latter incorporates more diverse societies, is smaller in

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Mitchell Bernard, "Regions in the Global Political Economy: Beyond the Local-Global Divide in the Formation of the Eastern Asia Region," *New Political Economy*, 1/3 (November 1996), 336; Chia Siow Yue and Lee Tsao Yuan, "Subregional Economic Zones: A New Motive Force in Asia Pacific Development," in Fred Bergsten and Marcus Noland, eds., *Pacific Dynamism and the International Economic Systems*, (Washington, DC: Institute of International Economics, 1993), 267-8; Friedrich Wu, *Hong Kong and Singapore: Twin Capitals for Overseas Chinese Capital*, (Singapore: Development Bank of Singapore Briefing #41, August 1994), 3-16; Laura Tyson and John Ridding, "China in Taiwan strait accord: end to 48 year shipping ban," *Financial Times*, 23 January 1997, 1 and 18.

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geographic size, the Singapore dollar is not a surrogate currency in neighbouring territories (unlike the Hong Kong dollar), and the sources of FDI are more diverse than the Southern China zone. Political initiative on the part of Singapore and Indonesia were critical in the creation of the triangle's southern leg, as Singapore had developed close ties with Johor before then deputy Prime Minister Goh Chok Tong's December 1989 growth triangle announcement. Bilateral discussions led to improved investment regulations and the creation of the Batam industrial park. The Southern China case is not based upon formal, bilateral accords so much as domestic policy decisions in China (and Taiwan) opened opportunities for firms to invest and move into SEZs.[172]

Their postwar economic development shows how poverty and insecurity are not inevitable for small countries and how growth zone development is one way to cope with economic difficulties caused by external shocks The relocation of labour intensive industries from the Hong Kong and Singapore hubs reflects changing comparative advantage conditions, the use of transnational production networks amongst participants, and key political decisions to move certain types of manufacturing from the metropolitan cores to their respective neighbouring hinterlands. The search for lower cost factory locations near both entrepots highlights the significance of factor driven production in the zone's production profiles. The support of Hong Kong and Singapore capital, along with Taiwanese investment, has been crucial in successful zone development although the unofficial use of hub currencies makes host country control of the domestic money supply

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The recent literature on international crises' impact on domestic actors' preferences and behaviour has an implicit economic pluralist bias because policy outcomes are seen as functions of political conflict shaped by different actors' preferences, weighted by their market power and collective action propensity. An economic crisis is an event that combines a major downturn in the business cycle, alters the relations between governments and firms in a given polity, and changes in the geographic location-distribution of production. During a crisis, social actors evaluate present and alternative policies in relation to costs, benefits, and prevalent or relevant ideas. Policies are chosen by politicians and bureaucrats and their choices are constrained by the need to mobilize/retain support from other societal actors. Crises can strengthen reformers' bargaining position against status quo proponents and provide an opportunity for change. Changing economic conditions are mediated by representation mechanisms, state organization, ideology, and international position. Previous historical development of institutions can affect later political-institutional processes. Rapid political change occurs during short-term upheavals followed by longer periods of stability. There is a reciprocal interplay between agency and structure as actors alter political or socioeconomic structures in crises. Once formed, social structures constrain agents so that institutions are both products and constraints. The rules and structures designed to deal with one crisis may be ineffective for future ones.

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problematic. Moreover, growth zones require minimum levels of political cooperation between political actors and involve politicized domestic constructions of identity. Hong Kong became more closely linked to China economically but its government sought to maintain policy autonomy up to and past the 1997 transition. Taiwan and China are now seen as part of a subregional economic entity despite their political differences. Singapore has become tightly linked to Malaysia and, to a lesser extent, Indonesia in terms of trade, investment, and production. Both Singapore and Hong Kong are the centres of their respective zones. Participation in growth zones helps alter preexisting social relations, conceptions of sovereignty, and understandings about the importance of territoriality.[173]

Unlike AFTA, APEC, and NAFTA, subregional growth zones do not involve entire national economies, although both transcend political boundaries in terms of members' border areas. In contrast to EPZs, subregional zones are transnational, are not a subset of one national economy and combine various factor endowments not available solely in one country. The zones are geographically contiguous areas separated by political boundaries but possessing different factor endowments or complementarities (land, labour, capital, and resources) due to varying stages of development. Government support for the zone has occurred at the highest levels, although there is no formal trilateral agreement. Rather, there are two bilateral accords between Singapore and Indonesia covering water supplies and investment protection. Geographic proximity minimizes transaction and information costs, especially in flexible manufacturing where just in time delivery from a broad support network is necessary to overcome supply bottlenecks. Growth zones do not have preferential access to domestic or regional markets (like NAFTA et. al) but

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Bernard, "Regions in the Global Political Economy", 337-38, 340-41; Denny Roy, "China's Threat Environment," *Security Dialogue*, 27/4 (December 1996), 443-445; Ngaire Woods, "Economic Ideas and International Relations: Beyond Rational Neglect," *International Studies Quarterly*, 39/2 (June 1995), 170-71.

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encourage the creation of efficient production and distribution systems.[174]

Hong Kong style capitalism, with small locally financed firms, stands in contrast to the multinational corporate structure and government intervention of Singapore. Hong Kong's commodity labour-intensive production faces higher land, labour, and building costs while fluctuating demand for exports has inhibited sustained capital investment in capital and equipment. Close ties with China allowed Hong Kong to become China's commercial trading and financial hub by encouraging firms to reduce local commodity production, concentrate on product R&D, focus on trading functions, and expand capacity by relocating production to China.[175] Singapore companies face similar pressures and responded to the PAP's growth zone and regionalisation strategies by relocating to southern Malaysia and western Indonesia. Singapore also offers state supported technology investment schemes, unlike Hong Kong, to assist in industrial restructuring but its industrial policies may be replaced by selective investment policies and regulations that do not detract from middle class demands for greater collective consumption. The Hong Kong state is less of an economic development agent than Singapore and is more concerned with infrastructure provision and collective consumption.[176]

China utilizes its advantage in low cost labour to attract investment and technology

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Advancing understanding about subregions can start by recognizing the Eurocentric and state-centric nature of contemporary IR and IPE theories. Traditional, mainstream IR focuses on states as actors in an inter-state system, often downplaying domestic or international historical structures and processes. Consideration of how the global and local interact is often obscured by separate levels of analysis. It is important to define a region, how it assumes its particular form, and its relationship to broader structures. Regional space is assumed, by neoliberals, to be the product of national spaces and the density of interactions between economies.

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Min Tang and Myo Thant, ed., *Growth Triangles in Asia: a new approach to regional cooperation*, (Manila: Oxford University Press for Asian Development Bank, 1994), 2-21; Joseph Wu and Dixie Zietlow, "Determinants of Bilateral Trade among Asia Pacific Countries," *ASEAN Economic Bulletin*, 11/3 (March 1995), 298-303. EPZs are well-defined enclaves, within a country, outside normal customs regulations where firms on site enjoy favoured tax treatment for imports of goods and services, in exchange for export-oriented production.

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Regionalised production occurs in a spatial, class, ethnic, and gender hierarchies that regulates through authoritarian management practices and coercive state structures. However, the recent Japanese recession and the yen's strength call into question whether existing social relations of production are still suitable as Japanese industry continues to invest abroad. Persistent trade imbalances continue to exacerbate tensions between the US, Japan and their Asian trading partners, spurring political friction, aggressive unilateralism by the US, and higher resentment of American pressure to open 'closed' markets. East Asian state elites are also concerned about dependence on Japanese industrial technology although local capitalists may benefit. Bernard, 344-45.

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from capital abundant Hong Kong and Taiwan, which have relatively more expensive labour. Singapore also provides capital, technology, and labour intensive industries eager to move to lower cost locations in Johor and Batam. Rising labour and land costs require industrial relocation to the mainland to continue for declining industries. Hong Kong firms need to find capital and knowledge intensive niches (market research, product and component engineering or design, quality control, and packaging), through greater local post-secondary and vocational training or importing skilled personnel from China or abroad.[177] A JSR division of labour includes light industry on Batam, oil refining on Karimun, and resorts on Bintan. Singapore has an advantage in services and skilled manufacturing although both Malaysia and Indonesia seek more value added manufacturing. Compared to Hong Kong, Singapore has retained more of its manufacturing base through its greater use of industrial subsidies.[178]

The expansion of both zones spurred infrastructural improvements in all participants. Each zone has become a transnational export processing zone targeting the world market, combining different resource bases, as investors can access vertical

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Randall Jones et. al, *Economic Integration between Hong Kong, Taiwan, and the coastal provinces of China*, (Paris: OECD Economic Studies #20, Spring 1993), 116-40; George Crane, "China and Taiwan: not yet Greater China," *International Affairs*, 69/4 (1993), 705-23; an insightful discussion of how Guangdong's ties with Hong Kong and Taiwan have led to a combination of industrial restructuring, unemployment and inflation is in Thomas Chan's "The Economic Development of Guangdong," in John Borrero et. al, eds., *Capital, the State and Late Industrialization* (Boulder: Westview, 1996), 204-217.

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Ozawa attributes the postwar transformation of Asia and Europe to a Pax Americana, a hegemonic structure where industrialization was fostered by US support for a liberal trading regime, underpinned by fixed exchange rates. Japan was able to move from tier four (labour intensive, light industries- textiles and apparel), through tiers three and two (heavy, undifferentiated Smithian industries requiring scale economies- steel, metals, and chemicals to assembly, differentiated Smithian sectors- cars, TVS and consumer durables), to tier one (innovation intensive industries- aircraft, computers, and pharmaceuticals) since 1945. At each stage, particular patterns of exports and foreign investment mirrored certain stages of structural upgrading. The absorption of western technology was crucial for the transitions from labour intensive phase one to phase two and from phase two to phase three. The NIEs took advantage of industrial and market recycling opportunities as Japanese firms moved declining industries to other Asian locations. Taiwan and Korea are building up second and third tier industries while Hong Kong and Singapore attempt to leapfrog to tier one activities. ASEAN and new NIEs are moving into tier three from four. Overcoming Ricardian bottlenecks is the concern of tier four and three industries using resources and labour intensively. Tier one and two firms seek market expansion and technological innovation (Smithian growth elan). Japan has regionalized much of its production in Asia Pacific while marketing and technological efforts are more globalized.

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complementarity in specialized production from the contiguous areas.[179] With much of zonal trade in intermediate goods, proximity reduces information, transport and time constraints in dealing with non-transparent or complex regulations. Batam is too far from the consumer base in Java and Sumatra for market access types of FDI but its location near Singapore, infrastructure projects, and imported labour helps make suitable for export processing. Johor has more developed infrastructure and can take pressure off Singapore facilities. Singaporean trade and investment has changed Batam and Johor's geography, land, labour, and production markets. Hong Kong and Singapore ameliorated increased production costs somewhat, secure production hinterland, water supplies, develop tourist facilities, solidify their regional entrepot status, restructure their economies toward value added services, and become regional service hubs while declining manufacturing moves to cheaper locations nearby.[180]

FDI, Technology Transfers & Production Relocation

In both cases, trade appears to have followed investment, although the support of government agencies seems more overt in the Singapore zone than in the Hong Kong zone. The markets created in these zones reflect, in part, political efforts to manage potentially adverse economic changes that could destabilize participants' respective polities.[181] Formal institutionalization has been low as regulatory frameworks consist of

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David Gold, "The evolving nature of the transnational corporation," in Simon, ed., 60-2, 66-7, 70-3; Michael Hobday, *Innovation in East Asia*, 186-203; Smith New Court, *Singapore: SE Asia's High Tech Capital*, (June 1994), 4-15.; Alan Rugman, 'Strategic responses of Canadian firms to globalization," and David Mowery, "Joint ventures between US and Pacific Rim firms," in Simon, ed., 136-47 and 292-322.

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Chia Siow Yue, *Motivating Forces in Subregional Economic Zones*, paper presented at the 30 November-2 December 1993 Economic Interdependence and Challenges to the Nation State conference in Honolulu, 1-3 and 10-27; ibid., *Economic Cooperation and Interdependence in the SIJORI Growth Triangle*, paper for the 27-28 October 1994 Economic Interdependence and Challenges to the Nation State conference in Singapore, 1-6, 8-15; T.S.Y Duk, "The Development of Greater China: prospects and challenges for ASEAN," *ASEAN Briefing*, (July 1993), 9-17; Richard Higgott and Richard Stubbs, "Competing conceptions of economic regionalism: APEC vs EAEC in the Asia Pacific," *Review of International Political Economy*, 2/3 (Summer 1995), 517-31.

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Min Tang and Myo Thant, *Growth Triangles: conceptual issues and operational problems*, (Manila: Asian Development Bank Economic Staff Paper #54, February 1994), 1-16. According to the Hecksher-Ohlin-Samuelson theorem of economic comparative advantage, a country has a comparative advantage in those factors it has in abundance and uses intensively. Free trade benefits the owners

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unilateral, tacit understandings or informal, bilateral adjustments. The political objectives of the JSR zone include helping ensure stable economic adjustment in Singapore and further development of Johor and Batam. Although both zones entail hierarchical divisions of labour, the Hong Kong zone's participants have more ethnic, cultural, and linguistic commonalities amongst them than the JSR actors. In each case, political objectives dovetailed with changing economic circumstances to encourage subregional economic integration.[182]

Both Hong Kong and Singapore have become transport, telecommunications, and financial service hubs for their respective hinterlands. The growth zones in southern China and ASEAN serve as sites for the utilization of Japanese, overseas Chinese and Western capital. Production facilities are also transferred within two zones due to improved product quality by local firms and intensified R&D in Singapore and Hong Kong. After the 1985 Plaza Accord, Japanese FDI, along with NIC, US, and European finance, flowed increasingly to Southeast Asian countries as regional and bilateral trade became more

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of the abundant factors of production and reduces the former monopoly rents to scarce factor owners. The increasing importance of TNCs and FDI, within and across regions, highlight how factors of production are subject to outside influences in disparate locations. Parent-affiliate links are not just linear but are now integrative as both interact with each other and outside companies. FDI from TNCs can occur anywhere along the value chain. A strategic cluster is a group of firms within a geographic region that participate in the same or closely related group of industries. Each cluster has a core firm with affiliated subsidiaries. The web of strategic relationships that tie the members together is the business network and relies on mutual advantage and trust. The members agree to align and harmonize competitive advantages for mutual advantage. Both market transaction and intra-firm operations are involved. Firms can use the resources of others in the network. Key suppliers are fewer in number, can be distributors in foreign markets, and produce a larger share of value-added. Relations with competitors can also include joint ventures, technology transfers, supplier development, and market-sharing accords. Flagship firms also have to maintain ties to governments, business lobbies, labour unions, and universities or colleges. Core companies retain key functions while peripheral actions can be assigned to network partners. In both cases, joint ventures and foreign invested companies have an ethnic Chinese component to facilitate business contacts and management expertise.

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Paul Evans, "Economic and Security Dimensions of the Emerging Order in the Asia Pacific," in David Wurfel and Bruce Burton, eds., *Southeast Asia in the New World Order: the political economy of a dynamic region*, (London: Macmillan Press, 1996), 5-7; Lee Tsao Yuan, "Hong Kong and Singapore: Government and Entrepreneurship in Economic Development," in Joseph Cheng, ed., *Hong Kong's Economic Development: Fifty Years After*, (Hong Kong: Hong Kong University Press, 1995), 632-55. The intra-regional division of labour within the triangles consists of production and distribution networks linking MNCs and local firms, horizontally and vertically, to a core metropolis serving regional and global markets. The relocation of production facilities has accelerated trade flows between triangle participants. Japanese investment in the triangle participants help create and extract surplus through exploitation of cheaper labour, land, raw materials, and local markets. After the Plaza Accord revalued currencies, offshore manufacturing from the NIEs shifted to ASEAN and China as production costs rose and the former shifted into intermediate technology product and service niches. Japanese direct investment in the triangles, recognizes its' market expansion potential and proximate location for offshore production. Outward investment during the endaka bubble of the late 1980s was concentrated in labour intensive and resource extraction sectors. In joint ventures with overseas Chinese companies, Japanese capital has integrated its partners into regional production network through technology licensing and original equipment manufacturing (OEM) of machinery, motor vehicles, electrical machinery, textiles, chemicals, and microchips. While the Chinese networks are held together through personal ties cemented by mutual ownership of equity, the networks of international capital are based on functional relationships between institutionalised industrial, financial, and commercial capital fractions.

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intra-firm and intra-industry.[183] Companies in the region are becoming part of producer or buyer driven commodity chains or networks that source across dispersed locations. Japanese and Western FDI have helped create production networks in the NIEs and ASEAN where the growth zones are located.[184]

Since 1945, governments in Hong Kong, Taiwan, and Singapore all contributed, in varying degrees, to export promotion and altering factor market conditions through subsidies, tariffs, capital price distortions, and infrastructure provision in order to attract foreign capital and aid domestic growth. Hong Kong and Singapore's production profile changed as the former's manufacturing base declined, replaced by commercial and financial services, and the latter's early reliance on foodstuffs and paper products shifted to oil refining, chemicals, pharmaceuticals, and electronic components. Compared with the other NIEs, Hong Kong's commodity export composition, manufacturing employment growth, and commodity exports have grown slower, while its small scale, labour intensive manufacturing has largely moved into China to compete in international subcontracting

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The growth triangles help host countries attract FDI, resource extraction, processing and manufacturing operations in order to deal with higher domestic production costs and attempt to upgrade to higher value added activities. A triangle has an investing core state or actor that provides capital, technology, and skills to the receiving states that possess lower cost land, labour, and resources. The parties to a triangle have different factor endowments and vary in their stages of technology and economic development. FDI from both hubs also reflect the shortage of domestic investment opportunities and the attraction of higher risk returns in contiguous participants. The transnational relocation of transplanted industries reflects cheaper costs nearby, currency realignments, along with Hong Kong and Singapore's repositioning as regional service hubs with higher value added activities. Key factors successful triangle emergence include economic complementarity, geographic proximity, political commitment, policy coordination, and proper infrastructure development. Capital exporters want to exploit cost differentials to relocate declining industries and rationalize production/distribution through vertical integration. Recipients boost exports, aggregate employment, technology transfers, worker skills, and foreign exchange earnings through foreign investment-related production. Triangles can also increase linkages with the domestic economy through employment and income growth. Growth triangles are appropriate forms of subregional cooperation because their export orientation helps maintain competitiveness, they can be established at low cost quickly, and they help localize the initial impacts of trade/investment liberalization. Production from triangles can also help mitigate export market protectionism through the exploitation of unused export/import quotas. For the Southern China triangle, firms in Hong Kong and Taiwan took advantage of China's political-economic reforms, and changing comparative advantage, to shift production to the mainland. Decentralization of decision making authority to lower levels of governance (initially in the SEZs), meant to improve the business environment and attract foreign investment through lower transaction costs, included lower taxation and lighter regulation.

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Nicole Woolsey Biggart, Gary Hamilton, and Marco Orru, *The Economic Organization of East Asian Capitalism*, (London: Sage Press, 1996), chapters seven to nine. Globalization by Japanese MNCs emphasized lowering production costs and maximizing market access through FDI, production alliances, joint ventures, and regional outsourcing. Higher production costs (particularly after the oil shocks), export market protectionism in the form of NTBs (OMAs and VERS), domestic environmental pollution restrictions, and yen revaluation accelerated production away from labour intensive manufactures towards capital/technology intensive industries. Many firms divided their production process into a regional division of labour and located them where it was cost-efficient. The leading DFI sectors included electrical, transport machinery, and metal products. Host countries also sought to emulate Japan's export oriented industrialization with labour intensive, assembly or processing operations operated by MNCs solely, or in joint ventures.

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networks.[185] Singapore suffered most adversely in the mid-1980s after pushing up wages to encourage firms to restructure towards capital-knowledge intensive output. Restructuring in Singapore is moving in the direction of trade services and finance, although manufacturing continues to be dominated by MNCs. In contrast, Taiwan's postwar development saw manufacturing, and now services, replace agriculture as the leading sector. Taiwan's restructuring is also different with smaller firms, less so larger companies, relocating to the mainland. Local firms began to shift, with government support, into high technology to reduce dependence on labour intensive products.[186]

The Flying Geese model for regional development and production applied only to *selected sectors* from developed states to the NICs. This partial diffusion has led to a intra regional hierarchy within certain industries in which other producers depend on Japanese corporations for essential technology. In their domestic production, Japanese corporations have rarely left entire sectors as they have continued to manufacture high-end products. Also, manufactured exports from NICs and ASEAN largely go to North American and European destinations, not to Japan. Regionalised production helps reduce Japan and NIC trade surpluses with their major trading partners and transfer political tensions over

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John Zysman and Michael Borrus, "Lines of Fracture, Webs of Cohesion: Economic Interconnection and Security Politics in Asia," in Susan Shirk and Christopher Twomey, eds., *Power and Prosperity: Economics and Security Linkages in Asia Pacific*, (New Brunswick: Transaction Publishers, 1996), 77-95; Tai Ming Cheung, "The Interaction Between Economics and Security for China's External Relations," in ibid., 120-36; Michael Donnelly and Richard Stubbs, "Japan and Southeast Asia: facing an uncertain future," in Wurfel and Burton, 170-73. Appreciating currencies, loss of GSP status, and rising domestic land/labour costs in Japan and the NICs helped catalyse the FDI push into southeast Asia in the late 1980s. Host governments also helped by easing FDI regulations. Imports from Japan rose more than exports to Japan as ASEAN members' trade surplus with Japan became a deficit from 1985-93.

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The appreciation of the US dollar since it fell to historic lows against the deutschmark and yen in April 1995 was due to international monetary and exchange rate coordination between the US, Germany and Japan. All three governments wanted a stronger dollar and the latter two relaxed their monetary policy to stimulate flagging economies, while the Federal Reserve did not tighten credit on an improving domestic economy. Financial markets viewed the mark and yen as overvalued, a bipartisan Congressional consensus emerged over the need to balance the budget, and Treasury Secretary Robert Rubin helped convince central banks to intervene between April and August 1995 to help the dollar appreciate. Dollar appreciation has also slightly reversed some of the *endaka* rationale for Japanese firms to move offshore. The strong yen since the 1985 Plaza Accord encouraged Japanese MNCs to invest and shift production facilities offshore to the NIEs and ASEAN. The recent recession also exacerbated the need to find cheaper production sites. From Y112 to the dollar in January 1994, the yen went to Y79.8 by April 1995 and back to Y110 in July 1996. Philip Gawith, "Dollar does an about turn," *Financial Times*, 3 July 1996, 4; William Dawkins, "Yen rise prompts exodus," ibid., 2; Hong Kong Special Administrative Region Economic Subgroup, *Enhancement of Hong Kong's role as an International Financial Centre*, (Hong Kong: SAR strategy paper, 18 May 1995), 194-207; an interesting discussion of Hong Kong's future competitiveness can be found in *The Hong Kong Advantage: a study of the Hong Kong Economy's competitiveness*, (Hong Kong: Vision 2047 Foundation, July 1996), 2-10.

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imbalances to other states in the region. However, there have been concerns that regionalised production, and growth zones, will merely reinforce Japanese and Overseas Chinese technological or commercial dominance.[187]

Regional economic integration, in these two case studies, is *partly* attributed to 1) globalized production networks, 2) more intergovernmental disputes over bilateral economic relationships, and 3) rapid technological change. Globalized production networks are arrangements that link various production units in different countries in the provision of components, materials, and management for product assembly. The tension between global production networks and the territorial state system arises from rapid industrial change fragmenting product markets, decentralizing manufacturing activity, and shifting production from the firm to the network level.[188] But technological complexity entails higher start-up and R&D costs, steeper learning curves, the decreased efficacy of reverse engineering, and resultant firm or government reluctance to transfer technology. Instead of the product cycle emphasis on industrial replication and homogenization, East Asian development has varied in technological diffusion but the NIES are linked around a Japanese supply architecture of components and machinery. Growing R&D costs and shorter time frame for commercialization has made intra and interregional alliances

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Bernard and Ravenhill, 124 and 127. Both horizontal and vertical integration, in production and R&D, are driven by states pursuing industrial policies, trade and investment liberalization, and TNCs coordinating transnational production networks in different regions. Simultaneously, there may be political pressure to protect threatened industries through new forms of NTBs. But migrant and unskilled labour, social disruption, low technology transfers where MNCs dominate assembly operations with proprietary technology, and the dearth of local R&D are negative externalities. Export oriented production can support service sectors in the triangle but linkages to other areas of the host economy may be limited by poor technology transfers and how fast the workforce obtains skills. For a zone to succeed, the requisite infrastructure must be built and maintained, which has opportunity costs. Resources spent on subsidies to attract industries could be better used elsewhere. Large income differentials and perceived asymmetric benefits, resulting in domestic and inter-regional resentments, could hinder future triangle development. The emergence of other zones will depend, in part, on continued FDI, investor friendly hosts, and sustained governmental commitment to stable economic ties. Participants that are not part of the hub city or state must, at least, acquiesce becoming lower-cost hinterlands that absorb relocated firms.

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Gordon Clark, ed., *Asian NIEs and the Global Economy*, (Baltimore: Johns Hopkins University Press, 1995), 4, 6-11, 15-19, 252-65; Tai Lok Lui and Stephen Chiu, "Merchants, Small Employers and a Non-Interventionist State," in Borrero et. al, eds., *Capital, the State and Late Industrialization*, 222-241; Yin Ping Ho, *Trade, Industrial Restructuring, and Development in Hong Kong*, (London: Macmillan Press, 1992), 156-188; Bernard and Ravenhill, 122-123 and 126; Edward Chen, "Economic Restructuring and Industrial Development in Asia Pacific: competition or complementarity?" *Business and the Contemporary World*, 5/3 (Spring 1993), 74-86.

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between firms, governments, and research institutes more important. But technonationalism has increased as technology transfers and intellectual property rights become more contested.[189]

Although much of Asia Pacific still relies on Japanese capital and technology imports, transnational migration of production is not uniform across all sectors. Production structures differ across time and space depending on local power configurations, historical trajectories, and dominant technologies. In Korea and Taiwan, original equipment manufacturing is still dominant in high technology industries. In Southeast Asia, export-oriented manufacturing is conducted by the subsidiaries of transnational corporations as transnational production networks coexist within the interstate system. This dependence or reliance on low-cost assembly locations and imported capital goods produced a regional division of labour based on cross-border production networks. Production networks, while offering some flexibility, continue to be arranged hierarchically. Location within the hierarchy relates to the architecture of supply and the production practices of different firms that have pursued diverse strategies in their respective contexts. Location influences the nature of overseas investment. Such networks also complicate the interpretation of national trade, investment, and local content data as output would be counted locally, purchasers would see a particular brand name, and the DFI statistics would record a Japanese or NIC investment.[190]

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David O'Connor, "Technology and Industrial Development in the Asian NIEs: past performance and future prospects," in Denis Fred Simon, ed., *The Emerging Technological Trajectory of the Pacific Rim*, (New York: ME Sharpe, 1995), xiii-xvi, 58-68, 72-74, 76; Philippe Regnier, *Singapore-City State in Southeast Asia*, (London: Hurst and Company, 1991), 27-48; Richard Suttmeier's "The Technological Emergence of the Pacific Rim: Threat or Opportunity to the United States?" in Simon, ed., 4-8, 15, 18. Motorola-Toshiba, Hitachi-Goldstar, National-Singapore Semiconductor, and Hewlett Packard-Samsung are examples of crossnational collaboration in semiconductors, a key component of high technology products.

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Bernard and Ravenhill, 175-84; Carlos Primo Braga and Geoffrey Bannister, "East Asian investment and trade: prospects for growing regionalisation in the 1990s," *Transnational Corporations*, 3/1 (February 1994), 99-110. Official data for investment flows can be understated and there are discrepancies between data recorded by different national or international agencies. DFI data may not show their importance to host economies as production cooperation can involve technology licensing or other activities that do not involve a transborder flow of funds.

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Nonetheless, it is *not clear* how coordination is achieved between these cooperating companies or subsidiaries. Presumably all participant firms contribute to the network's operations or a head office directs overall operations. There is *insufficient* consideration whether US and NIC technology and components play a more significant role in the regional supply architecture and division of labour.[191] Although Japanese, Taiwanese and Korean TNCs have moved low-end electronics production to ASEAN, they still rely on capital equipment imports from Japan. Technological dependence is more pronounced in ASEAN than in the NICs because of the reliance on MNC subsidiaries for manufactured export production and the lack of backward linkages in EPZs. The primary reason for the lack of domestic inputs supplied to Japanese MNCs is the inability of local firms to supply goods and services of the desired quality or reliability. Locally owned companies would find it hard to become part of a network unless they allied themselves with a foreign subsidiary. Inputs from Japan and the NICs end up processed in the region before being exported to third country markets. Japan's bilateral trade imbalances with the NICs shifted to ASEAN as production moved, partly, to ameliorate trade conflicts.[192]

Since the NIEs began to face increased competition from Asian competitors and protectionism from developed countries in the 1970s and 1980s, they moved away from low-cost original equipment manufacturing (OEM) for developed country TNCs and became primary producers of sophisticated products or services themselves. Some zone participants use financial and industrial policies to attract production facilities and outside

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Mitchell Bernard and John Ravenhill, "Beyond Product Cycles and Flying Geese: Regionalisation, Hierarchy, and the Industrialization of East Asia," *World Politics*, 47/3 (January 1995), 171-73, 179, and 206. There has also not been significant reverse imports to Japan, as the product cycle predicts, rather they argue Japanese technology and components are used in exports destined for US and European markets.

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Bernard and Ravenhill, 185-8, 192, 196-99, 200-208; Braga and Bannister, 111-29. Linda Lim, "International Changes Affecting Southeast Asia," in Barbara Stallings, ed., *Global Change and Regional Responses*, (New York: Cambridge University Press, 1995), 246-51, 255-57, 259-62, 266-68. There are also impending concerns regarding whether triangle-based indigenous firms can move up the value added chain enough; whether there will be a backlash against overseas Chinese networks due to income disparities; and the succession within these conglomerates.

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investment through an educated labour force, infrastructure, and capital. Their shift into advanced component production and some technology systems highlights their success in adapting imported technology but should not obscure their continued reliance on outside sources. Just as Hong Kong and Singapore were once attractive, low cost production sites, rising protectionism and costs have provided an impetus for upgrading local capabilities. Singapore has constantly sought to upgrade workforce skills and infrastructure in order for indigenous firms to move into higher value added production of computers, microelectronics, and precision tools through tax credits, loans, and industrial estates. Labour intensive, low technology production has moved to Batam-Riau and Johor.

NIEs became prominent electronic component and systems producers after importing technology and investment from the US and Japan. NIE government policy tended to support strong investments in an educated workforce, particularly a Research and Development (R&D) community. Controlled investment access, human and physical capital investment, an export orientation, and performance requirements, transferred technological and economic externalities from foreign firms to local ones. FDI was important in developing Hong Kong and Singapore's electronics industries, unlike the stronger indigenous sectors in Japan, South Korea, and Taiwan.[193] South Korea concentrated in semiconductor production and consumer electronics while Singapore and Taiwan produced computer subsystems and integrated circuits. Hong Kong mainly produced consumer electronics but is now moving into more advanced components. Hong Kong and Singapore shifted into higher value-added sectors, leaving older industries free to move to lower-cost locations in neighbouring areas. Taiwanese investment in Southeast

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Denis Fred Simon, "Strategic Underpinnings of the Electronics Industry in the NIEs of Asia," 163-69, 176-78 and Carl Dahlman, "Electronics Development Strategy: the Role of Government," Table 16.1-4, 243-46 in Wellenius et. al, eds., *Developing the Electronics Industry*, 252, 256-62.

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Asia has been dominated by larger firms in textiles, electronics, pulp and paper, and chemicals. The region was touted by Taipei as an alternative production site, reducing undue dependence upon the mainland's comparative advantages.[194]

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W. Edward Steinmuller, "The US, Japanese, and Global Integrated Circuit Industry: Prospects for New Entrants," in Bjorn Wellenius, Arnold Miller, and Carl Dahlman, eds., *Developing the Electronics Industry*, (Washington, DC: World Bank, 1993), 141-47; Hideaki Ohta et. al, "Evolving Foreign Investment Strategies of Japanese firms in Asia," in ISEAS and Nomura Research Institute, *The New Wave of FDI in Asia*, (Singapore: ISEAS, 1995), 51-3; Chiu in LaCroix et. al, 151; Carl Goldstein, "State chips in," *Far Eastern Economic Review*, 1 March 1990; Iris Lee, "Institutes join forces to help technology," *South China Morning Post*, 16 July 1991.

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APPENDIX 1.1

Real Effective Exchange Rates 1985-1992 (1985=100)

Country/Year	1985	1987	1989	1991	1992
Japan	100	135.2	130.8	125.6	130
Hong Kong	100	92.1	91.5	120.4	125.9
Singapore	100	83.0	94.1	87.6	91.1
Taiwan	100	91	109.1	103.0	108.4
Indonesia	100	57.8	56.8	53.7	54.5
China	100	69.5	89.8	59.9	58.3
Malaysia	100	80.7	69.3	63.9	68.1

Selected Asian Exchange Rates Relative to the US Dollar (Local Currency in US Dollar terms, January 1985-January 1997)

Currency	1985	1987	1989	1991	1993	1995	1997
Chinese Yuan	2.9	3.9	3.9	5.2	5.8	8.6	8.3
Hong Kong Dollar	7.81	7.7	7.78	7.74	7.73	7.74	7.75
Indonesia Rupiah	1100	1700	1750	1900	2100	2250	2500
Japan Yen	255	155	125	140	130	90	125
Malaysia Ringgit	2.57	2.55	2.75	2.8	2.65	2.55	2.45
Singapore Dollar	2.25	2.15	1.90	1.75	1.65	1.45	1.40

Selected Asian Exchange Rates Relative to the US Dollar (Local Currency in US Dollar terms, 7 October 1997)

Hong Kong Dollar	7.7356
Indonesia Rupiah	3720.0
Japan Yen	121.91
Malaysia Ringgit	3.3690
Singapore Dollar	1.5400
Taiwan Dollar	28.580

World Oil Prices (Arabian Light Spot, US$ per barrel and % change) 1973-1996

1973	2.81	54.4%	1991	17.45	-15.7%
1975	10.43	-5.0%	1992	17.86	2.3%
1977	12.57	8.1%	1993	15.70	-12.1%
1979	29.19	126.1%	1994	15.39	-2.0%
1981	34.17	5.1%	1995	16.81	9.2%
1983	28.67	-9.7%	1996	19.09	13.6%
1985	27.45	-2.3%			
1986	13.33	-51.4%			
1987	17.33	30%			
1988	13.40	-22.7%			
1989	16.21	21.0%			
1990	20.71	27.8%			

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The growth of FDI in China 1985-1994 (US$ mn)

Country in rank order	1994	1985-1992	1994 as % of 1985-1992
Hong Kong & Macau	48700	21367	227.9
US	6000	2797	214.5
Taiwan	5400	1749	308.7
Japan	4400	3729	118.0
Singapore	3800	400	950.0
UK	2700	293	921.5
ROK	1800	na	na
Germany	1200	505	237.6
Canada	890	125	712.0
France	250	220	113.6

FDI into China by source 1988-1995 (US$,000)

Country	1988	1990	1992	1994	1995
HK/Macau	209520	191342	770907	2017481	2049900
Hong Kong	2067760	188000	750707	1966544	2006000
Taiwan	2244	22240	105050	339104	300400
US	23596	45599	51105	249080	308300
Japan	51453	50338	70893	207529	310800
Singapore	2782	5043	12231	117961	185100
Canada	602	804	5824	21605	25700

FDI Totals into Guangdong, Shenzhen city, and Shenzhen SEZ 1987-1995 (US$,000)[195]

Year	Guangdong	% share	Shenzhen	% share
1987	60299	26	27379	12
1989	115644	34	29252	9
1991	182286	42	39875	9
1993	749804	27	98900	14
1995	1018028	27	130989	3

Foreign investment in the Pearl River Delta 1986-1991 ($ mn)

	1986	1989	1991
Guangzhou	179.7	298.5	377.4
Zhongshan	14.4	41.2	102.7
Dongguan	18.8	88.6	148.6

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Rob Steven, 75, 77, 90, 94-5, 99, 113-35; S. Tejima, "Future Trends in Japanese investment," *Transnational Corporations*, 4/1 (April 1995), 85-95; Sylvia Ostry, "Japanese FDI in East Asia electronics industry," ibid., 11-40; Sebastian Moffett, "The Sun also Rises," *Far Eastern Economic Review*, 20 June 1996, 62-5.

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Jiangmen	45.1	96.5	127.7
Fuoshan	81.5	189.4	226.3

Contracted and Realised FDI in Guangdong by country (cumulative total 1985-1992)

	US$ mn	% of Guangdong total	% of national total
Hong Kong/Macau	29787	84.5	44.2
	8975	84.2	44.9
Taiwan	1373	3.9	n/a
	334	3.1	19.2
US	914	2.6	12.9
	460	4.3	16.7
Japan	450	1.3	8.8
	351	3.3	10.5
Singapore	371	1.1	20.8
	74	0.7	19.2

Utilized FDI in Guangdong by country in 1985-1992 (%)

	1985	1990	1991	1992
HK/Macau	87.4	69.8	79.5	89.04
Japan	6.5	9.06	4.35	0.46
USA	3.8	9.35	5.4	2.0
Taiwan	n/a	4.82	6.0	3.62

Utilized FDI in Guangdong and delta by industry 1985-1992 (%)

	1985	1990	1992
Industry	61.2	77.5	74
	na	81	81
Real estate	22.4	4.5	8.9
	na	5	11.2
Transport	4.14	1.7	6.8
	na	1	0.7
Commerce	3.9	2	0.4
	na	2.3	0.5
Banking	na	3	2.9
	na	4	0.8

Trade expansion between Hong Kong and China (average annual growth rate %)

Hong Kong Exports to China			Hong Kong Imports from China	
	Domestic	Reexport	Retained	Reexport
1980-1985	44.95	45.88	14.38	28.34
1985-1991	21.26	20.06	4.44	36.83

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Hong Kong-China bilateral trade 1985-1991 (HK$ million and % of total)[196]

Year	HK domestic exports	reexports	PRC share of reexports	PRC exports to HK (US$ m)	PRC Re-exports via HK	PRC imports from HK	HK reexports to PRC
1985	129882 55.2	105270 44.8	34.6 32.9	7168 26.2	3422 12.5	7857 18.6	5907 14
1987	195254 51.6	182780 48.4	84.3 46.1	13762 34.8	8052 20.4	11290 26.1	7716 17.9
1989	224104 39.3	346405 60.7	188.3 54.4	21916 41.7	17323 32.9	18816 31.8	13268 22.4
1991	231045 30.2	534841 69.8	315.7 59	13536 44.5	11524 37.9	11774 44	8685 32.4

APPENDIX 1.2

Hong Kong Employment and Industrial Undertakings 1988-1991[197]

Sector	Employees (,000) 1988	1991	Enterprises (#) 1988	1991
Clothing	247.7	187.6	9228	7336
Textiles	116.9	98.7	5302	5055
Plastics	72.4	41.5	5572	4377
Fabricated Metals	61.2	41.5	6779	6092
Machinery	28.5	41	4955	5922
Foodstuffs	23.7	24	979	884

Manufacturing employment by sector in Hong Kong 1985-1990 (,000 and % of total

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Ian Scott, *Political Change and Crisis of Legitimacy in Hong Kong*, (London: Hurst Press, 1989), 221-8 and 231-5. Data table on 224 and 227 drawn from *Hong Kong Annual Digest of Statistics* and *Hong Kong Monthly Digest of Statistics*, 1987 and 1988. See 246-59 and 322-335 for a discussion of the legitimacy crisis affecting Hong Kong's government after the 1984 Sino-UK accord regarding the 1997 transition.

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Haggard, 204-8; Economist Intelligence Unit, *EIU Country Profile: Hong Kong 1992-93*, (London: EIU Publications, 1993), 18, 27-9, 39-40; Harry Harding, "The Problematic Future of Chinese Economic Reforms," and George Crane, "Reform and Retrenchment in China's SEZs," in *China's Economic Dilemmas in the 1990s*, (New York: M.E Sharpe, 1992), 78-88 and 841-57.

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manufacturing workforce)

	1985	1989	1990
Apparel	264,569	237,345	214,108
	(31)	(30)	(30)
Textiles	110,606	113,487	100,150
	(13)	(14)	(14)
Electronics	111,186	105,985	85,266
	(13)	(13)	(12)
Plastics	82,517	59,248	53,413
Paper products	44,297	51,878	53,024
	(5)	(7)	(7)

# of firms and # of persons engaged in selected Hong Kong industry groups 1981 and 1991

Sector	1981	1991	% change	1981	1991	% change
Apparel	9789	7443	-15	289339	187496	-35
Textiles	5691	4684	-18	127491	99234	-22
Printing	3164	4978	57	34623	41221	19
Machinery	4272	5885	38	36210	41161	14
Fabricated metals	6827	5855	-14	84675	46366	-45
Office equipment	213	198	-7	29430	18660	-37
Watches, clocks	1774	1369	-23	60045	27157	-55
Electronic parts	515	313	-39	26383	22638	-14
Transport	416	567	36	18287	13634	-25
Chemicals	629	686	9	8836	7758	-12
Appliances, toys	454	249	-45	27850	10489	-62
Radio/TV	354	170	-52	35972	9401	-74

Average employment size per firm in selected Hong Kong industry groups, 1981 and 1991

Sector	1981	1991
Apparel	33	25
Textiles	22	21
Printing	11	8
Machinery	8	7
Fabricated Metal	12	8
Office Equipment	138	94

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Watches	34	20
Electronic parts	51	72
Transport	44	24
Chemicals	14	11
Appliances		
Toys	61	42
TV, radios	102	55

Number of Persons in Major Economic Sectors 1985-1993 (,000)

Sector	1985	1987	1989	1991	1993
Wholesale/retail	590	648	758	880	958
Manufacturing	849	875	803	655	508
Finance/insurance	179	210	249	289	336
Community/social	203	214	234	262	275
Transport	95	113	130	144	153

Number of Firms and Persons in Manufacturing 1985-1993[198]

Year	# of firms	# of persons engaged	avg # of persons per firm
1985	48065	848900	18
1987	50409	875250	17
1989	49296	802293	16
1991	46276	654662	14
1992	41937	571181	14
1993	39238	508133	13

Changes in Merchandise Trade and foreign trade proportions 1985-1992 (HK$ bn and %)

Year	1985	1990	1991	1992
Total exports (X)	235	640	766	925
Dom. exports (DX)	130	226	231	234
Reexports (RX)	105	414	535	691
Total imports (M)	231	642	779	955
Total trade (X+M)	261	559	641	743
DX/X	55	35	30	25
RX/X	45	65	70	75
RX/DX	81	183	231	295
X/GDP	90	115	120	125
M/GDP	89	115	122	129

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Hong Kong Monthly Digest of Statistics, *Special Review: Structural Changes in Manufacturing Industries 1981-1991*, (Hong Kong: Dept of Statistics, September 1993), 118; Yin Ping Ho, *Trade, Industrial Restructuring and Development in Hong Kong*, (London: Macmillan Press, 1992), 29-31, 34-63, 74-80; Department of Industry, *Hong Kong's Manufacturing Industries 1994*, (Hong Kong: Department of Industry, 1995), 8-13, 15-20, 22-25, 27-32.

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X+M/GDP	179	230	241	253

Hong Kong domestic exports by commodity 1985-1990 (US$ million and % of total domestic exports)[199]

	1985	1989	1990
Apparel	5758	9215	9252
	(35)	(32)	(32)
Textiles	794	1861	1902
	(5)	(7)	(7)
Telecommunication equipment			
	595	1518	1626
	(4)	(5)	(6)
Electronics			
	868	1051	1235
	(5)	(4)	(4)

APPENDIX 1.3

Origins of Reexports 1985-1992 (HK$ bn and % share of total reexport trade)[200]

	1985	1990	1991	1992
China	34.6	240.4	316	404
	(33)	(58)	(59)	(58)
Japan	22.5	42	57	85
	(21)	(10)	(11)	(12)
Taiwan	9.6	30	42	54
	(9)	(7)	(8)	(8)
US	10	25	27	32
	(9)	(6)	(5)	(5)

Reexport destination 1985-1992 (HK$ bn and % share of total reexport trade)

	1985	1990	1991	1992
China	46	111	153	212
	(44)	(27)	(29)	(31)
Japan	5.5	24.4	30	38

199

Y.P Ho and Y.Y Kueh, "Whither Hong Kong in an Open Door, Reforming Chinese Economy," *Pacific Review*, 6/4 (1993), data tables on 337, 340-43, 345 and 349 drawn from Hong Kong Census and Statistics Dept, *Estimates of Gross Domestic Product 1966-92*, (March 1993); various issues of *Hong Kong Review of Overseas Trade*, *Hong Kong External Trade*; *Hong Kong Annual Digest of Statistics*, and the *Hang Seng Economic Monthly*, (June 1993). See also Wilkinson, tables on 153, and 155-6.

200

George Crane, "Special Things in Special Ways: National Economic Identity and China's SEZs," *Australian Journal of Chinese Affairs*, 32 (July 1994), 72-3, 75-80, and 83-91. The origins of post-Mao economic reforms can also be traced back to the power restructuring engendered by the 1966-76 Cultural Revolution where power was devolved to lower levels of government and the CCP reorganized by purges. See Mark Lupher, *Power Restructuring in China and Russia*, (Boulder: Westview Press, 1996), 166-265.

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	(5)	(6) (5.5)		(5.4)
Taiwan	4.3	21.2	25	26
	(4)	(5)	(5)	(4)
US	15	88	111	149
	(14)	(21)	(21)	(22)

Domestic Exports by Importing Economies 1985-1992 (HK$ bn and % share of total export trade)

	1985	1990	1991	1992
China	15	48	54	62
	(12)	(21)	(24)	(27)
Japan	4.5	12	12	11
	(3.4)	(5.3)	(5)	(5)
Taiwan	1.2	5.7	6.1	6.5
	(1)	(2.5)	(2.6)	(3)
US	58	66.4	63	65
	(44)	(29)	(27)	(28)

Imports by Major Source 1985-1992 (HK$ bn and % share of total import trade)

	1985	1990	1991	1992
China	59	236	293	354
	(26)	(37)	(38)	(37)
Japan	53	103	127	166
	(23)	(16)	(16)	(17)
Taiwan	21	58	75	87
	(9)	(9)	(10)	(9)
US	22	52	59	71
	(10)	(8)	(8)	(7)

APPENDIX 1.4

Hong Kong reexports to China by SITC number 1983-1989 (US$ million)[201]

Year	Chemicals	Textile Fabric	Electrical Machinery
1983	112	432	287
% share of PRC imports except direct imports from HK	5.1	55.4	27.9

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Lao and Yeung, 232-244; Gary Klintworth, "China's evolving relationship with APEC," *International Journal*, (Summer 1995), 495, 505 and 512; Jack Williams, "China and Taiwan," in Denis Dwyer, ed., *China: the next decades*, (New York: Longman, 1994), 222-39; Zhang Zhongli and Ding Yi, "American Direct Investment in China," in LaCroix et. al, eds., 53; Nicholas Lardy, "The Role of Trade and Investment in China's Economic Transformation," *China Quarterly*, 144 (December 1995), 1065-82.

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% share of Hong Kong reexports to PRC	6.7	26	17.1
1985	372 10.3	1236 63	1511 33.3
	6.3	21	25.9
1987	804 16.8	1902.6 72.5	1346.9 31.8
	10.4	24.7	17.45
1989	1592	3018	780
	12.0	22.7	5.9

China share of retained HK imports by SITC commodity number 1983-1989 (%)

Year	Textiles	Machinery	Clothing
1983 % of PRC merchandise in HK retained imports	22.3	5.4	64
Distribution of HK retained imports from PRC	14.4	5.7	11.3
1985	34.8	9.8	67.9
	23.8	11	15.2
1987	37.4	12.1	67.6
	30.7	17.8	17.5
1989	29.2	10.6	62.3
	29	22.2	21.7

China share of HK domestic exports by SITC commodity 1983-1989 (%)

Year	Chemicals	Textile Fabrics	Telecommunications Equipment	Electrical Machinery	Clothing

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1983 share of PRC market in HK domestic exports	17.3	22.6	9.1	3.6	1.0
HK domestic exports to PRC	2.8	25.7	12.3	4.7	5.3
1985	37.6	27.1	25.7	10.4	1.1
	3.2	14	15.2	6.9	3.2
1987	59.5	34	25.7	12.4	2.0
	5.4	19.5	13.7	6.4	4.7
1989	74.8 9.2	36.6 14.2	40.7 15.1	19.2 7.9	2.6 4.3

Hong Kong imports from China for reexport by SITC commodity 1985-1989

Year	Textile Fibre	Clothing	Textile Fabric	Machinery
1985	191.3	782	754.8	132.6
1987	280.3	1896.4	1647.2	895.1
1989	366.6	3911.1	2594.9	3642.4

Visible trade balance between Hong Kong and China 1985-1989 (US$ million)

Year	Direct Trade		Indirect Trade		Total Trade	
	Domestic exports	Retained imports from China	Reexports to China	Imports from China reexported	Exports to China	Imports from China
1985	1950	3790	5907	3778	7857	7568
1987	3574	5591	7716	9185	11290	14776
1989	5548	4698	13268	20517	18816	25215

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APPENDIX 2.1

1989 land and labour costs in Hong Kong and Guangdong[202]

Guangzhou	27HK$ rent per sq m per month	HK$1856-2145 selling price per sq m	HK$ 1000-1200 manufacturing wage per month
Shenzhen SEZ	HK$15-29	HK$1475	HK$800
Dongguan	HK$10	n/a	HK$470
Hong Kong	HK$193	HK$12000	HK$5520

Nominal and Real Daily Wages for Staff in Manufacturing 1985-1993 (HK$)

Sector	1985	1988	1989	1990	1991	1992	1993
All Manu-facturing	98	139	163	184	204	224	248
	92.2	98.2	99.3	101.5	100.1	100	101.1
Optical goods	94	120	146	165	177	205	204
	87.7	98.7	107.9	107.3	99.9	100	94.9
Garment	101	138	161	178	189	206	218
	108.6	105.2	104	105.7	102.5	100	97.8
Cotton weaving	92	142	150	176	200	210	232
	89.8	101.4	101.5	103.2	101.6	100	102.1
Electrical goods	82	119	129	156	173	188	232
	81.8	94.4	105.7	106.8	101.9	100	102.4
Watches/clocks	91	137	151	170	192	205	235
	77.1	94.9	103.4	103.2	98.6	100	102.4
Electronics	87	119	149	156	180	213	256
	70.7	85.6	89.1	93.3	96.8	100	115.7
Printing	128	177	210	244	278	308	344
	68	80.4	86.9	95.6	96.3	100	101

Average nominal wages in selected provinces 1985-1990 (yuan)

	1985	1990
Guangdong	1375	2928
Jiangxi	996	1728
Hunan	1056	2016
Guangxi	1080	2052
Fujian	1056	2160

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Wang Jun, "Expansion of the Southern China Growth Triangle," in Tang, Thant, Kakazu, eds., 151-71; Yun Han Chu, "The East Asian NICs," in Barbara Stallings, ed., *Global Change and Regulatory Response*, (New York: Cambridge University Press, 1995), 218-35; Gareth Hewett, "HK firms in deals on mainland," *South China Morning Post*, 19 May 1993.

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Sichuan	1068	2016

Nominal annual average wages in the Pearl River Delta 1983-1990 (yuan)[203]

	Shenzhen	Guangzhou	Zhuhai	Dongguan	Zhongshan	Fuoshan
1983	1610	1170	1375	1197	1182	1273
1986	2628	1843	2105	1616	1735	1714
1990	4464	3571	4046	3552	3499	3531

APPENDIX 2.2

External Investment in Hong Kong Manufacturing by Source and Number, 1985-1994
(HK$ mn at original cost)

Country	1985	1987	1989	1991	1993	1994
Japan	3273	5609	8642	10982	13944	14740
	(117)	(160)	(180)	(174)	(174)	(146)
US	5659	7695	9290	9638	11501	11799
	(143)	(162)	(147)	(127)	(89)	(88)
China	2851	1739	3178	3747	4408	4234
	(35)	(47)	(49)	(46)	(37)	(37)

External Investment in Hong Kong Manufacturing by Industry and Number, 1985-1994
(HK$ mn at original cost)

Industry	1985	1987	1989	1991	1993	1994
Electronics	5021	8516	8637	11102	12340	13296
	(115)	(123)	(112)	(109)	(75)	(76)
Electrical						
Products	1000	1814	3446	4464	3747	4234
	(32)	(35)	(62)	(57)	(38)	(35)
Textiles	1322	2031	2789	3187	3938	3782
	(105)	(122)	(127)	(104)	(77)	(76)
Food	892	1050	1431	1668	2817	3601
	(20)	(20)	(25)	(25)	(22)	(24)

Share (%) of Employment in Hong Kong: selected manufacturing industries 1986-1994

Sector	1986	1987	1988	1989	1990	1991	1992	1993	1994
Apparel	12.73	12.05	11.19	10.48	9.17	7.98	6.82	5.63	4.42
Textiles	5.62	5.56	5.27	5.01	4.39	4.14	3.59	3.15	3.14
Paper	0.69	0.72	0.75	0.73	0.67	0.59	0.53	0.43	0.38
Plastics	4.24	3.64	3.17	2.62	2.25	1.75	1.40	1.07	0.86

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Sung et. al, 210-9 and 222-41. Data tables drawn from 223-4. (a)= % share of China's total exports. (b)=% share of world exports. (I)=% share of total imports from China. (ii)=% share of total imports from World. (iii)=% distribution of HK reexports of China's exports/ Guangdong processing exports.

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Metals	3.01	2.84	2.70	2.41	2.25	1.92	1.7	1.46	1.31
Machinery	6.74	7.07	6.62	5.99	5.07	4.30	4.03	3.62	3.09
Optical equipment	1.88	1.79	1.67	1.5	1.44	1.21	1.02	0.84	0.74

Share (%) of Employment in Service Sector 1986-1994 [204]

Year	Trade/Tourism	Transport	Finance/Business Services	Community/Social Services
1986	29.96	4.77	9.39	10.07
1987	30.69	4.94	9.9	10.04
1988	32.16	5.22	10.64	10.16
1989	34.19	5.57	11.25	10.44
1990	36.29	5.81	12.10	10.92
1991	38.41	5.91	13.03	11.78
1992	40.12	6.39	13.79	11.76
1993	41.77	6.78	14.88	12.26
1994	44.22	6.77	15.02	12.03

Manufactured Employment of Surveyed Companies by Industry Location 1991 (%)

Products	Hong Kong	China
Textiles	2.4	6.1
Garments	27	21.2
Footwear	0.6	3.5
Toys	3.1	8.4
Watches/Clocks	3.2	1.3
Electronics	10.4	13.2

% distribution of exports of surveyed companies (% share in 1988-1991)

Products	Made in HK	Made in PRC
Textiles	39.0	38.2
Garments	50.5	34.7
Footwear	38.0	42.4
Toys	13.5	58.7
Watches/Clocks	64.6	23.7
Electronics	34.7	24.9
Textiles	15.7	58.7
Garments	30.5	58.2
Footwear	8.8	80.5

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Linda Ng and Chyuan Tuan, eds., *Three Chinese Economies*, (Hong Kong: Chinese University of Hong Kong Press, 1996), 34-35, 40-47; Lowell Dittmer and Yu-Shan Wu, "The Modernization of Factionalism in Chinese Politics," 47/4 *World Politics* (July 1995), 484-94; Joseph Cheng and Sonny Lo, eds., *From Colony to SAR: Hong Kong's Challenges*, (Hong Kong: Chinese University of Hong Kong Press, 1995), 119-23, 126-30, 133-34, 184-85.

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Toys	13.6	81.1
Watches/Clocks	57.2	34.5
Electronics	21.8	53.0

Hong Kong Manufacturing and Export/Import Sectors 1985-1991 (# of firms, employment, % change over previous period)[205]

Year	# of firms	Workers employed
1985	45915 (-4%)	847615 (-6%)
1986	46816 (+2)	865614 (2)
1987	49403 (6)	867947
1988	49843 (1)	837072 (-4)
1989	50566 (2)	791519 (-5)
1990	49449 (-2)	715597 (-10)
1991 (2nd qtr)	47150 (-5)	681085 (-5)

Year	# of firms	Workers employed
1985	32890 (9)	191852 (12)
1986	35753 (9)	216225 (13)
1987	38946 (9)	240167 (11)
1988	47431 (22)	278448 (16)
1989	53817 (13)	311045 (12)
1990	62660 (16)	341583 (10)
1991 (2nd qtr)	68659 (10)	367772 (8)

Number of Employees (and Firms) in Manufacturing 1986-1993

	1986	1987	1988	1989	1990	1991
Garments	299932 (10932)	298377 (10556)	286659 (10412)	274732 (9672)	251746 (9746)	224925 (8837)
	1993					
	157418 (6287)					
Electronics	103796	106835	109677	99455	85169	71466

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Hong Kong Trade Development Council, *Survey on Hong Kong Domestic Exports, Reexports, and Triangular Trade*, (Hong Kong: HKTDC, 1991), I-vi, 5-7, 13. Most of the products listed in the data tables are reexported through Hong Kong, ranging from 83% of textiles to 99% of watches/clocks.

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(1823)	(1949)	(1939)	(2009)	(1815)	(1633)
1993					
49213					
(1275)					
Watches & Clocks					
32805	31629	31180	30091	27154	23936
(1633)	(1648)	(1729)	(1845)	(1690)	(1707)
Textiles					
70714	75118	71967	73504	68638	62004
(3195)	(3522)	(3543)	(3555)	(3786)	(3611)
Plastics					
89447	83829	72412	63557	53137	41522
(5460)	(5718)	(5572)	(5621)	(5263)	(4377)
Toys 56104	49034	39684	na	24734	18715
(2264)	(2151)	(2003)	na	(1735)	(1431)

Domestic Export of Industrial Products 1988-1992 (HK$ m)

	1988	1989	1990	1991	1992
Apparel & clothing	67309	71874	72165	75834	77156
Textile yarn & fabrics	15551	16814	16906	17630	17226
Plastics	2617	3586	4567	4928	4659
Metal manufactures	5659	5317	4523	4929	4659
Watches & Clocks	16588	16344	18319	15855	15476
Data processing machines	3722	3949	3660	3821	3370
Household electrical equipment	5479	4252	3376	3207	3078
Telecommunication equipment	11092	11840	12683	11483	10991

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Toys, sporting goods	10233	7155	5452	4895	4159

APPENDIX 2.3

Hong Kong Employment by Manufacturing Sector and Employer Size (#s & % share) 1985-1990

Sector	1985	1986	1987	1988	1989	1990
Manu-facturing	847615	865614	867947	837072	791519	715597
% share	100	100	100	100	100	100
Apparel, except footwear	264569	263428	258221	247557	237345	214108
	31.2	30.4	29.8	29.6	30	29.9
Textiles	110606	116334	119081	116509	113487	100150
	13	13.4	13.7	13.9	14.3	14
Printing	30809	32049	32718	35800	35351	37356
	3.6.	3.7	3.8	4.3	4.5	5.2
Fabricated metal products	61773	62329	60800	59720	54670	50942
	7.3	7.2	7.0	7.1	6.9	7.1
Electrical machinery	111186	115250	125841	117241	105985	85266
	13.1	13.3	14.5	14	13.4	11.9
Plastic products	82517	87703	77963	70145	59258	53413
	9.7	10.1	9.0	8.4	7.5	7.5
# of staff	1985	1986	1987	1988	1989	1990
1-9	121291	123788	128079	133425	129666	130957
% share	14.3	14.2	14.6	15.8	16.1	17.9
10-99	381427	395037	403691	387244	374286	336803
% share	44.9	45.3	46.1	45.9	46.6	46.1
100-499	240000	241195	233321	217746	203523	182587
% share	28.3	27.7	26.7	25.8	25.3	25
500-999	67257	34360	64348	71210	71949	50173
% share	7.9	4.0	7.4	8.1	8.5	6.9

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1000-1999	29143	12026	31568	25145	29150	22565
% share	3.4	1.4	3.6	3.0	3.0	3.1
2000+	9782	12026	7381	9066	7386	7132
% share	1.2	1.4	0.8	1.1	0.9	1.0

Development of Garment and Electronics Industries by Number of Enterprises and Employees 1985-1991[206]

Year	Garment Firms #	%	Employees	%	Electronics	%	Employees	%
1985	10307	21.4	292789	34.5	1304	2.7	86115	10.1
1987	10556	20.9	298377	34.1	1949	3.9	106835	12.2
1989	9672	19.4	274732	34.2	2009	4.0	99455	12.4
1990	9746	19.9	251746	34.5	1815	3.7	85169	11.7
1991	8837	19.1	224925	34.4	1633	3.5	71466	10.9

Value Added of Selected Manufacturing Industries 1985-1992 (HK$ mn and % share of all industries)

Industry	1985	1987	1989	1991	1992
Clothing	14536, 28.9	21491, 28.4	23949, 26.7	23105, 24.9	24746, 25.4
Electronics	5690, 11.3	10327, 13.6	12476, 13.9	12275, 13.2	13943, 14.3
Textiles	4990, 9.9	8627, 11.4	9227, 10.3	9329, 10.1	9593, 9.8
Printing	2730, 5.4	3553, 4.7	5561, 6.2	7049, 7.6	77815, 8.0
Plastics	4769, 9.5	6064, 8.0	6931, 7.7	5923, 6.4	4824, 5.0
Industrial machinery	1128, 2.2	2033, 2.7	2792, 3.1	3652, 3.9	3957, 4.1
Watches clocks	1451, 2.9	2514, 3.3	3792, 4.2	3256, 3.5	3297, 3.4
Optical goods	526, 1.0	610, 0.8	771, 0.9	911, 1.0	949, 1.0
Household appliances	968, 1.9	1431, 1.9	1181, 1.3	1471, 1.6	883, 0.9

Exports of Guangdong and Pearl River Delta (US$ million) 1990-1993

	1990	1991	1992	1993
Total	10560	13688	18440	20419
	7080	9265	12922	14573

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Michael Hobday, *Innovation in East Asia*, 14-30; Tai Lok Liu and Stephen Chiu, "Hong Kong: Unorganized Industrialism," in Gordon Clark and Won Bae Kim, *Asian NIEs and the Global Economy*, (Baltimore: Johns Hopkins University Press, 1995), 86-90, 93-99, 109-110. HK-PRC entrepot trade statistics are distorted somewhat as exports are classified by country of destination while imports are listed by country of origin. Hong Kong tracks PRC reexports but there is no accurate data on imports for later reexport as the importer may not know if the product is reexported later. Hong Kong earns a reexport margin processing from PRC exports and subtracting the value of HK's PRC imports from total imports gives the value of retained imports.

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FTCs	6175	7466	9184	9095
	3404	4158	5042	5188
Processing	583	800	999	878
Compensation	78	95	97	99
Foreign				
invested firms	3724	5327	8159	10347
	3149	4382	6969	8562

Hong Kong Trade with PRC (imports, imports for reexport, exports, reexports) selected years[207]

	value ($ mill)	annual growth (%)	share of PRC exports	share of HK exports
1983	5888	--	26.5	24.4
1986	10462	38.2	33.8	29.5
1989	25215	30	48	35
1991	37610	24.2	52.4	38

	value	annual growth (%)	share of PRC exports	share of HK exports
1983	2300	--	9.5	30
1986	5620	49	16	36
1989	20517	43.3	28.4	54.3
1991	40473	31.3	40.5	59

	value	annual growth (%)	share of PRC exports	share of HK exports
1983	2531	--	12	11.5
1986	7550	-4	18	21.3
1989	18816	10.5	32	25.7
1991	26631	31.2	50	27.1

	value	annual growth (%)	share of PRC exports	share of HK exports
1983	1675	--	7.6	22
1986	5241	-11.3	15	33.4
1989	13268	9.1	18.1	30
1991	19565	38.2	20	29

Major export and import markets of Shenzhen, Shantou, and Zhuhai 1990 (value and %)

Shenzhen	imports	%	exports	%
Hong Kong	1613870	65	2548470	85
US	16800	0.7	95040	3.1

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HongKong Bank Economic Report, *Hong Kong's Visible Trade Deficit*, April/May 1995, 1-6; Economist Intelligence Unit, *EIU Country Report #3 1992: Hong Kong*, (London: EIU Publications, 1992), 6-7, 22-3, 31-4; ibid., *EIU Country Profile 1992-3: China*, 49-57; Jesse Wong, "HK firms turn cautious on China projects," *Asian Wall Street Journal*, 4 August 1993, 1 and 8; Nicholas Reynolds, "Textiles firms shuts factories," *South China Morning Post*, 29 May 1995, 1.

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Singapore	5610	0.2	41540	1.4
Japan	79630	3.2	39520	1.3
Taiwan	n/a		n/a	
Macao	n/a		n/a	
UK	21830	0.9	n/a	
Germany	n/a		14270	0.5
Shantou				
Hong Kong	819920	91	169710	58
US	11510	1.3	21490	7.3
Singapore	6960	0.8	19120	6.5
Japan	32200	3.6	15690	5.3
Taiwan	8070	0.9	n/a	
Macao	6450	0.7	n/a	
UK	n/a		n/a	
Germany	10940	1.2	10660	3.6
Zhuhai	imports		exports	
Hong Kong	134634	84.3	359470	74
Macao	18330	12	83670	17

APPENDIX 2.4

Estimated Proportion of OP Trade with China (%)[208]

Trade Type	1989	1990	1991	1992	1993	1994
Total exports	53	58.8	55.5	52.4	47.9	47.7
Domestic exports	76	79	76.5	74.3	74	71.4
Reexports	43.6	50.3	48.2	46.2	42.1	43.3
Imports	58.1	61.8	67.6	72.1	73.8	75.9

Estimated value of OP trade 1989-1994 (HK$ mn)[209]

	1989	1990	1991	1992	1993	1994
Total Exports	76868	91914	113931	141639	160178	181179

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Hong Kong Monthly Digest of Statistics, *Trade Involving Outward Processing in China 1989-1994*, (Hong Kong: Dept of Statistics, June 1995), F3-F5, F7, F10-F13, F15; chapters on Asian FDI and manufacturing by Chee and Lau in Chen et. al, eds., *Industrial and Trade Development in Hong Kong*.

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In analysing Hong Kong-China outward processing (OP) trade, particularly from 1989-1994, it is important to remember exports to China for OP include raw materials or semi-manufactures from/through Hong Kong for processing and later re-importation back into Hong Kong. Imports related to OP from China include processed goods which used raw materials or semi-manufactures exported through Hong Kong. Reexports of PRC origin made through OP in China include those which all or part of their parts and processing have been exported through Hong Kong. OP trade flows do *not* include products imported directly without going through Hong Kong, those sold in China, or exported directly from China. Most of the outward processing from Hong Kong is done in Guangdong province, particularly Shenzhen, Dongguan, and Guangzhou.

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Domestic Exports	31962	36418	40369	44271	45141	41959
Reexports	44906	55496	73562	97368	115037	138221
Imports	113581	145103	197384	254013	295203	354912

OP Domestic Exports to PRC by Commodity Group (HK$ mn and % of OP trade)

Commodity Group	1989	1991	1992	1993	1994
Textile materials	5234, 84.8	6330, 83.7	6622, 87.4	6042, 86.8	5318, 79.4
Textile garments	1538, 85.1	2261, 89.6	3094, 93.2	3526, 94.2	4536, 96.4
Plastics	4114, 83.9	4886, 79.6	4643, 77.5	4692, 81.5	4746, 79.8
Machinery	4444, 56.7	5938, 58.6	7549, 59.7	7091, 54	7262, 57
TVS, VCRs	6523, 94.6	7796, 92.5	8242, 92.7	9507, 94.7	8057, 90.6
Clocks, watches	2220, 98.5	3012, 98.1	3379, 98.6	2956, 98.5	2839, 98.7
Toys	1447, 96.4	1490, 96.1	1566, 91.9	1486, 97.2	1305, 93.8

OP Reexports to PRC by Commodity Group (HK$ mn and % of OP trade)

Commodity Group	1989	1990	1991	1992	1993	1994
Textile materials	17868	22281	29285	37036	38238	46447
	71.5	75.9	77.1	81.9	81	78.3
Textile garments	724	917	1256	1500	1729	1504
	87.3	86.5	84.1	76	80	69
Plastics	4417	5838	8313	12141	13086	15919
	58	68.7	58.3	64.5	63	58.5
Machinery	5946	6606	7980	13001	16903	20935
	25	31.2	26.7	27.3	26	30
TVS, VCRs	2922	3626	3892	4455	6858	12525
	43	53	47	41.4	36	46
Clocks, watches	1801	2377	2941	3831	4957	5391
	94	97	96	98	99	98
Toys	293	465	535	819	1136	1072
	60	73	67	80	80	74

OP Imports from PRC Origin by Commodity Group (HK$ mn and % of OP trade)

Commodity Group	1989	1990	1991	1992	1993	1994
Textile materials	4256	5759	7684	8863	10020	13242

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	13	18	20.5	23	27	30
Textile garments	31717	40237	51003	59830	67531	70128
	85	87	87	84	83	83
Plastics	2945	4266	5641	7884	9361	11584
	73	78	85	89	90	87
Machinery	14190	16910	23742	32313	36668	48348
	78	73	78	81	76	82
TVS, VCRs	15476	22301	26338	31103	37586	50005
	85	88.7	90	93	92	95
Clocks, watches	5146	7165	8362	9582	11331	12724
	95	95.	96	94	96	96
Toys	10926	14143	17332	25301	27289	32847
	94	95	92	97	92	94

Hong Kong domestic exports and Guangdong processed reexports by commodity 1993 (US$ mn and %)

SITC commodity	Hong Kong	Guangdong
Travel goods	104 (4.6)	2170 (95.4)
Toys	431 (6)	6724 (94)
Teiecommunicaiions		
	1716 (22.1)	6041 (77.9)
Metal products	600 (37.8)	988 (62.2)
Textiles	2092 (40.6)	3057 (59.4)
Clothing	9289 (51.3)	8826 (48.7)
Electrical machinery	2930 (51.4)	2774 (48.6)
Office data processing Machines		
	2229 (63.5)	1279 (36.5)
Watches/clocks	1701 (66.8)	847 (33.2)

Estimated Value of Hong Kong Outward Processing Trade with China 1989-1993 (HK$ mn)

Type	1989	1990	1991	1992	1993
Imports	113581	145103	197384	254013	295203
Total Exports	76868	91914	113931	141639	160178
Domestic					
Exports	31962	36418	40369	44271	45141
Reexports	44906	55496	73562	97368	115037

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APPENDIX 3.1

Taiwan-HK trade 1985-1993 (US$ mn)[210]

Year	ROC exports	%	ROC imports	%	Surplus
1985	2539.2	8.3	319.7	1.6	2219.5
1986	2915.1	7.4	379.3	1.6	2535.8
1987	4112.9	7.7	706.7	2.0	3406.2
1988	5588.5	9.2	1922	3.9	3656.5
1989	7029.1	10.6	2197.2	4.2	4831.9
1990	8557	12.7	1446	2.7	7111
1991	12430.5	16.3	1994.5	2.1	10486
1992	15416	18.9	1780.9	2.5	13653
1993	18454.9	21.7	1728.1	2.2	16726.8

Trade flows between Hong Kong, Guangdong, Fujian, and Taiwan (1985-1991 value in US$ mn and %)

	1985		1989		1990		1991	
Guangdong exports	2952.67	100	8167.67	100	10560	100	13689	100
HK	2168.20	73.4	6154.32	80	8709	83	11593	85
ROC			7.0	0.1	9.0	0.1	36.5	0.3
imports	2426.64	100	4831.21	100	5748.9	100	8510	100
HK	2210.64	91.1	3554.17	74	4152.2	72	6294	74
ROC	--	--	28.4	0.6	53.8	0.9	134.1	1.6
Fujian exports	491.5	100	1661.8	100	2238	100	2926	100
HK	201	41	762	46	1065	48	1075.6	37
imports	600	100	735.3	100	933.2	100	1408	100
HK	318.2	53	373.2	51	460	49	747.2	53.1
ROC	13.2	2.2	20.4	3	41.6	4.5	104	7.4

Cross Straits Indirect Trade via Hong Kong 1985-1994 (US$ mn)[211]

Year	Total	ROC-PRC	% change	ROC-PRC	% change	Balance

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Jordan and Khanna, 436-443 and Samuel Ku, "The Political Economy of Taiwan's Relations with Southeast Asia: the Southward Policy," Contemporary Southeast Asia, 17/3 (December 1995), 282-97.

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Yu Jung Sheng, *Haixia Liangan Jingji de Jingjun Xingyu Hubo Xing* [Cross-Straits Economic Complementarity], unpublished manuscript, 5, 7, 13-15; ibid, *Liang An Guanxi Yu Taiwan Jingji* [Two Economic Relations in Taiwan's Economy], unpublished manuscript, 5, 8; Li Jung Zher et. al, *Liang An Chanyi Fungong de Liluan yu Zherzi* [The Industrial Division of Labour Across the Straits], (Taipei: *Zhonghua Jingji Yunjiu Yuan* [Zhonghua Economic Research Institute], June 1996), 5-29 provides an overview of the changing shares played by the primary, secondary, and tertiary sectors in both Taiwan and China, with manufacturing relocation to the mainland leading to a decline in the second and increase in the third categories respectively for Taiwan.

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	Exports		Imports			
1985	1102.73	986.83	131.95	115.9	-9.28	870.93
1987	1515.47	1226.53	51.2	288.94	100.35	937.6
1989	3483.4	2896.5	29.2	586.9	22.61	2309.6
1990	4043.62	3278.3	13.2	765.4	30.41	2512.9
1991	5793.11	4667.15	42.36	1125.95	47.11	3541.2
1992	7406.9	6287.93	34.73	1118.97	-0.62	5169.0
1993	8688.98	7585.42	20.6	1103.36	-1.40	6481.9
1994	9809	8517	12.3	1292	17.10	7225

China exports and imports to/from Taiwan 1989-1991 (US$ million and % of total)

Year	PRC X to ROC via Hong Kong	Direct exports to ROC	Indirect ROC imports via HK	Imports trans-shipped via HK
1989	470 0.9	93 0.2	2896 4.9	697 1.2
1990	612 1.0	320 0.5	3278 6.1	1456 2.7
1991	393 1.3	241 0.8	2048 7.6	1479 5.5

Taiwan exports and imports to/from China 1989-1991 (US$ million and % of total)

Year	ROC indirect X via Hong Kong	ROC transshipments via Hong Kong	Imports from ROC via Hong Kong	Direct imports from China
1989	2540 3.4%	642 1.0	587 1.1	97 0.2
1990	2875 4.3	1361 2.1	765 1.4	333 0.6
1991	1781 4.9	1417 3.9	491 1.6	251 0.8

Share of Taiwan in Hong Kong's entrepot trade and reexports with China 1985-1989 (%)

Year	Share in HK RX of PRC goods	Share in HK RX to PRC	Share in HK entrepot trade with PRC
1985	2.6	16.7	10.7
1987	2.7	15.9	8.2

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1988	2.8	18.4	9.4
1989	2.4	21.8	9.3

US Trade deficit with Greater China 1987-1991 (US$ billion)[212]

Participant	1987	1989	1991	% change 1987-1991
China	3.4	6.2	12.7	272.1
Hong Kong	6.5	3.5	1.1	-82.3
Taiwan	18.9	13	9.9	-48
Greater China	28.9	22.7	23.7	-18.1
US Deficit w/Greater China as % of total US Deficit	19	20.7	35.8	88.4

Trade Shares between Taiwan and China 1985-1995 (%)

Year	PRC share in ROC total X	Share of PRC Trade in total Trade	Share of X to ROC in total PRC X	ROC share in PRC total Trade
1985	7.27	4.17	0.42	0.56
1987	6.66	3.71	0.73	0.89
1989	9.61	4.88	1.12	1.18
1991	15.15	7.49	1.57	1.99
1993	20.78	10.21	1.2	9.58
1995	21.49	12.27	na	na

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Y.W Sung, 105-11, 114-21, 143-53, 168-9; Economist Intelligence Unit, *EIU Country Report #3 1992: China*,(London: EIU Publications, 1992), 23-8; ibid., *EIU Country Report #3 1992: Taiwan*, 19-23; ibid, *EIU Country Report #4: Taiwan*, 19-23,27-30, 39-41. For Hong Kong textiles and apparel exports, the August 1984 rule of origin change by the US placed limits on semi-finished garments. Growing pressure over bilateral trade imbalances with developed states, especially the US and Japan, and the shift to higher value-added manufacturing meant a investment outflow to the mainland. Estimates range from 10 to 20$US billion from 1991 to 1994, that is, 31 to 39% of total overseas investment. The PRC encouraged more ROC investments with the passage of a investor protection law in March 1994 while Clinton's de-linking of human rights from the PRC's MFN status maintained the mainland's attractiveness. Cross-straits trade increased in 1994 to 17% of Taiwan's total exports as it recorded a 7$US billion surplus. A vertical division of labour has China providing land and labour while Taiwan offers capital, producer goods, management, and marketing via Hong Kong mostly. Taiwan no longer relies on the US export market as much because the PRC is the major importer of its exports now.

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Adjusted ROC exports to PRC 1985-1995 (US$ mn)

Year	ROC X to PRC via HK	ROC X to Hong Kong	ROC X minus HK M	HK M from ROC transferred to PRC	ROC estimated real PRC exports	HK M from ROC
1985	986.8	2539.7	-142.7	1390.4	2234.5	2682.4
1987	1226.5	4123.3	-151.8	2499.9	3574.5	4275.1
1989	2896.5	7042.3	435.4	3042.5	6374.4	6606.9
1991	4667.2	12431.3	2826.3	4049	11542.5	9605
1993	7585.4	18454.9	6407.7	3658.7	17651.8	120047.2
1994	8517.2	21263	7505.3	4297.2	20319.7	13757.7
1995	9882.8	26121.6	8548.5	5485.6	24916.9	16572.6

Commodity Trade between Taiwan and China via Hong Kong 1985-1995 (US$mn)[213]

Year	Total Trade w/PRC	Growth rate %	Exports to PRC	Growth rate %	Imports from PRC	Growth rate %
1985	1102.73	99.34	986.83	131.95	115.90	-9.28
1986	955.55	-13.35	811.33	-17.78	144.22	24.43
1987	1515.47	58.6	1226.53	51.18	288.94	100.35
1988	2720.91	79.54	2242.22	82.81	478.69	65.67
1989	3483.39	28.02	2896.49	29.18	586.9	22.61
1990	4043.62	16.08	3278.26	13.18	765.36	30.41
1991	5793.11	43.26	4667.15	42.36	1125.95	47.11
1992	7406.9	27.86	6287.93	34.73	1118.97	-0.62
1993	8688.98	17.31	7585.42	20.63	1103.56	-1.38

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Data drawn from *Liang an jingji tongji yuebao* (Monthly Report on Cross-Straits Economic Relations) (Taipei: Mainland Affairs Council, June 1995), 20; ibid., (March 1995), 29; *Liang an jingmao tongxun* (Newsletter of Cross-Straits Economy) (Taipei: Straits Exchange Foundation, March 1996), 47; *Zhonghua minguo Taiwan diqu jinchukuo maoyi yuebao* (Monthly Statistics of Exports and Imports, Taiwan, Republic of China) Taipei: Minstry of Finance, February 1996), 16, 50, 65.

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1994	9809.5	12.9	8517.2	12.3	1292.3	17.4
1995	11457.0	16.7	9882.8	16.03	1574.2	21.8

APPENDIX 3.2

FDI-related exports and imports of Guangdong and Fujian provinces (1985-1991 value in US$ mn and %)[214]

	1985		1989		1990		1991	
Guangdong								
exports	2952.7	100	8167.7	100	10560	100	13688	100
Processing	273	9	578.17	7.1	583.32	5.5	800	6
Compensation	8.7	0.3	62.7	0.8	78	0.7	96.06	0.7
FDI ventures	221.1	7.5	2277	28	3724	35	5327.5	39
imports	2426	100	4831	100	5749	100	8510	100
FDI ventures	336.6	14	1951	40	3298	57	4513	53
Fujian exports	--	--	1828.4	100	2449	100	3147.5	100
Processing	--	--	178	10	208.5	8.5	293.3	9.3
Compensation	--	--	12.5	0.7	11.3	0.5	5.53	0.2
FDI ventures	--	--	687.1	38	1115.5	46	1377	44
imports	--	--	1594.5	100	1897.2	100	2608.5	100
Processing	--	--	163.5	10	162	8.5	251.2	10
Compensation	--	--	10	0.6	4.2	0.2	5.04	0.2
FDI ventures	--	--	163.4	11	238	13	283	11
Export								
Processing	--	--	584.2	37	896	47	1279	49

Importance of ROC-HK Trade by commodity, January-May 1992[215]

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Milton Yeh, "Shopfront in Hong Kong, Manufacturing on the Mainland," in Klintworth, ed., 134-41; Kiyohiko Fukushima, "FDI and Regional Industrial Restructuring in Asia," in ISEAS and Nomura Research Institute, *The New Wave of FDI in Asia*, (Singapore: ISEAS, 1995), 17-22; Robert Ash and Y.Y Kueh, "Economic Integration within Greater China: Trade and Investment Flows Between China, Hong Kong, and Taiwan," *China Quarterly*, (1993), tables on 714, 717, 724-5, 728, 731-3, 735, and 739 drawn from various issues of the Hong Kong Census and Statistics Department Monthly Digest of Statistics (HKMDS); UN Statistical Yearbook for Asia and the Pacific; State Statistical Bureau, *Zhongguo shangye waijing tongji zilian 1952-88* (Statistics Relating to China's Internal and External Trade 1952-88) and *Zhongguo tongji nianjian 1992* (Chinese Statistical Yearbook 1992); Guangdong Provincial Bureau, *Guangdong tongji nianjian 1992* (Guangdong Province Statistical Yearbook 1992); Fujian Provincial Bureau, *Fujian tongji nianjian 1992* (Fujian Province Statistical Yearbook 1992); and various Taiwan Statistical Yearbooks.

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Cal Clark, "Trends in Taiwan: an economic perspective," in Bih Jaw Lin and James Myers, eds., *Contemporary China in the Post-Cold War Era*, (Columbia: University of South Carolina Press, 1996), 182-83; Samuel Kim, "Mainland China in a Changing Asia Pacific Regional Order," ibid., 278-79. When the volume percentage is higher than the total value percentage, this indicates that Hong Kong and the mainland are buying the cheapest, lowest quality goods in the product mix. Taiwan, like South Korea, is shifting its declining, labour

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Product type	Hong Kong % total volume	Hong Kong % total value
plastic fabrics	77	75
polymer products	64	58
woven fabric, synthetic yarn	53	54
VCR parts	52	45
synthetic fibres	38	42
knit fabrics	39	39
other machine tools	43	39
synthetic woven fabrics	40	38
synthetic fibres	35	36
electrical wire	43	36
plywood	27	28
cameras	83	26
cathode tubes, ICs	29	23
electrical motors	25	20
electrical circuits	27	20
telephones	21	12
lamps	20	12
VCRs	98	11
sewing machines	26	7
office machinery	58	6
automatic data processing machines	33	3

Trends in ROC-PRC (indirect) trade through Hong Kong (annual growth rate of exports and imports %)

	Taiwan exports	Taiwan imports
1980-1985	28.08	7.79
1985-1991	25.92	37.92

Indirect Trade between PRC and Taiwan via Hong Kong 1986-1992[216]

ROC-HK-PRC

Year	Value	Annual Growth	% of Total Exports
1986	985.6	131.6	3.21

intensive manufacturing activities to the mainland and focusing on high value added exports while trying to diversify export market exposure. Both NICs are wary of undue reliance on Japan and the US markets, protectionism, and see China as a emerging large market for trade and investment.

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(a)= imports from China related to outward processing. (b)= share of total PRC exports. For priced contracts of imported equipment in processing operations, the Chinese partner pays for the imported equipment from the processing fee and the equipment belongs to him/her/it after the contract expires. For non-priced contracts, the Chinese partner does not pay a charge for the imported equipment as it belongs to the foreign partner. FTC= foreign trade corporation. Sung et. al, 64-84; Economist Intelligence Unit, *EIU Country Report 1993: Taiwan*, (London: EIU Publications, 1993), 20-25.

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1989	2248	82.34	3.71
1992	4667	42.4	6.13
PRC-HK-ROC			
1986	115.8	-9.4	0.42
1989	479.9	65.2	1.01
1992	1126	47.1	1.60

ROC and Hong Kong share of DFI in PRC (US$ million and % of total)

	1990	1991	1992
ROC investment in China	222.4	471.9	1050.5
% of total DFI	6.4	10.7	9.5
HK investment in China	2432	2486	7507.1
% of total DFI	54.9	57	68.2

Taiwan's entrepot trade with China via Hong Kong 1985-1992 ($ million and %)

ROC X to ROC via HK		PRC X to ROC via HK	ROC trade balance	ROC X to PRC and % of total		
986.8	131.9	115.9	-9.3	870.9	3.21	1985
1226.5	51.2	288.9	100.3	937.6	2.29	1987
2896.5	29.2	586.9	22.5	2309.6	4.38	1989
6200	32.8	1100	-2.3	5100	7.58	1992

ROC investment in Xiamen (1988-1992)[217]

	1988	1989	1990	1991	1992
# of contracts	57	154	172	94	105
Capital committed (US$ m)	82.19	454	370	196	204

Annual FDI in Xiamen SEZ 1986-1992 (US$ mn)

	1986	1988	1990	1992
# of agreements	34	180	262	133
Agreed investment	408.3	362.1	515.3	na

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Qi Luo and Christopher Howe, "Direct Investment and Economic Integration in the Asia Pacific: the case of Taiwanese Investment in Xiamen," *China Quarterly*, (1993), 746-67. Data tables on 752-55 drawn from Xiamen Statistical Bureau, *Xiamen tongji nianjian 1989-1992*, (Xiamen Statistical Yearbook). See also Julian Baum, "Shipping takes shape," *Far Eastern Economic Review*, 6 July 1995, 69; and Yun Wing Sung, "The economic integration of Hong Kong, Taiwan, and South Korea with China," in Ross Garnaut and Liu Guogang, eds., *Economic Reform and Internationalisation*, (St. Leonard's, NSW: Allen & Unwin, 1992), 149-81.

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Agreed FDI	27.6	155.6	453.4	na
Realised FDI	34.5	479.6	72.73	na

Sources and sectoral breakdown of FDI in Xiamen SEZ 1980-89 (US$ mn)[218]

	Projects	%	total FDI	%
Hong Kong	382	56.5	804	65.5
Taiwan	227	25.5	216	17.6
Singapore	43	6	57	4.6
USA	26	4	43	3.5
Japan	19	3	43	3.5

	Projects	%	FDI	%
Industry	550	62.6	848	51.8
Transport	19	2.6	11	0.9
Construction	45	7.7	25	3.85
Commerce	45	7.0	30	3.9
Real estate	102	10	351	17.4

Indirect exports and imports, via HK, between Taiwan and the mainland 1986-1992 (HK$ million and growth rate)[219]

	ROC-PRC		PRC-ROC		Total Trade	
1986	811.3	-17.8	144.2	24.4	955.6	-13.4
1989	2896	29.2	587	22.6	3483	28.02
1992	6288	34.7	1119	-0.6	7407	27.9

Taiwan's exports to Hong Kong and China 1988-1993 (US$ mn and %)

Year	Retained I in HK	Reexported I to PRC	Reexported I elsewhere	ROC total X to HK	Direct X to PRC	PRC I to ROC
1988	3209 (57.5)	1964 (35.2)	171 (3.1)	5580 (100)	236 (4.2)	na
1989	3376 (48)	2540 (36.1)	321 (4.6)	7030	793 (11.3)	1.85

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Simon Long, "Regionalism in Fujian," in Goodman and Segal, eds., *China Deconstructs*, 203-6 and 209-15; Jude Howell, *China Opens its Doors*, 127-8, 130-7, 141-5, and 153-69; S.M Li and L.X Zhao, "Xiamen: regional centre and hometown of overseas Chinese," in Yeung and Hu, 229-37. Data tables drawn from various issues of *Xiamen tongji nianjian* and *Fujian tongji nianjian*. Statistical discrepancies between Chinese and Taiwanese data on trade and investment flows represents overestimates by the former and underestimates by the latter, due to existing domestic restrictions on bilateral relations.

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Sung Shou Wei and Lishui Zhu, "The Growth of Foreign and Taiwan Investment in the Xiamen SEZ," 114-21; Sumner LaCroix and Yibo Xu, "Political Uncertainty and ROC Investment in Xiamen's SEZ," 126-38; Lee Chen Chiu, "The Pattern and Impact of ROC investment in China," 147-64; in Sumner LaCroix, Michael Plummer, and Keun Lee, eds., *Emerging Patterns of East Asian Investment in China*, (New York: M.E Sharpe, 1995). Data tables drawn from various issues of Hong Kong Annual Statistics, Taiwan's Ministry of Economic Affairs, and China's Statistics Yearbook.

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1990	3932 (44.7)	2875 (33.5)	338 (3.9)	8570	1525 (17.8)	2.25
1991	4354 (35.1)	4074 (32.9)	591 (4.8)	12418	3399 (27.4)	3.63
1992	4607 (29.9)	5509 (35.7)	606 (3.9)	15427	4705 (30.5)	5.85
1993	4275 (23.2)	6596 (35.7)	611 (3.3)	18455	6973 (37.8)	12.93

Taiwan's direct and indirect trade with China 1986-1993 (US$ mn)[220]

Year	Direct X	Indirect X	Direct I	Indirect I	Transshipments via Hong Kong To PRC & From PRC	
1986	23	705	4	151	1392	800
1988	236	1964	14	502	8096	2595
1990	1525	2875	70	804	81195	12477
1992	4705	5509	1219	1184	872292	211026
1993	6973	6596	1855	1159	1152363	329548

APPENDIX 3.3

Selected FDI cases in China by Major Taiwanese MNEs (US$ mn)[221]

Company Name	FDI Location	Cumulative FDI by 1995		FDI Content
Processed Foods:				
President Enterprises	12 cities	150.0		Milk, oils, tomatoes
Wei Chuan Foods	7 cities	12.3+		Processed foods
Charoen Pokphand	Shenyang, Shandong		4.9+	Animal feeds
Great Wall Entrp	Shenzhen, Dalian, Tianjin		8.7+	Flour, feed products
Fushow Industry	Xiamen	4.0+		Aquatic products
Chou Chin	Shanghai	3.0+		Beverages
Textiles:				
Formosa Teffeta	Guangdong	76.1		Textiles, fibres
Chung Shing	Shanghai, Chengdu	35.0		Textiles, underwear
Tai Yuan	Jiangsu	15.0+		Textiles, apparel
Carnival	Wuxi	13.5+		Textiles, apparel
Reward Wool	Ningbo	18.0+		Textiles, apparel

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Yun Wing Sung, "Subregional economic integration: Hong Kong, Taiwan, South China and beyond," in Edward Chen and Peter Drysdale, eds., *Corporate Links and Foreign Direct Investment in Asia Pacific*, 56-83. Data drawn from 77-78; Hsueh Tieh-tung and Woo Tun-oy, "The Development of Hong Kong-China Economic Relationship," in Joseph Cheng, ed., *Hong Kong's Economic Development: Fifty Years After*, (Hong Kong: Hong Kong University Press, 1995), 689-718.

221

Chin Chung, *Industry Characteristics and FDI Strategy: A Three Way Typology of Taiwanese Investment in Mainland China*, unpublished paper; ibid., *Double Edged Effects of Direct Foreign Investment and Firm Specific Assets: evidence from the Chinese Trio*, unpublished paper; Rong Wu, "The Role of Hong Kong in Taiwan-China Economic Interaction," in Chen et. al, eds., *Industrial and Trade Development in Hong Kong*, 370-90; Lee-in Chen Chiu and Chin Chung, "An Assessment of Taiwan's Indirect Investment Toward Mainland China," *Asian Economic Journal* 7/1 (1993), 43-44.

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Electronics:			
Chung Hwa	Shanghai	80.0+	Colour CRTs
Sampo	Beijing, Tianjin	60.0	Household appliances
Walsin Lihwa	7 Major cities	69.0+	Cables, wires
Inventec	6 Major cities	70.0+	Multimedia
Information:			
Acer Peripherals	Jiangsu	10.0	Keyboards, monitors
GVC Corp	Guangzhou	8.0	Footwear
Delta Electronics	Dongguan	4.0	Power switches
Lite-on Tech	Tianjin, Dongguan	15.0	Semiconductors
Rubber/Plastics:			
Nan Ya Plastics	Xiamen, Dongguan	89.0+	PVC tubes
Chi Mei	Danyang	94.5	Plastic PS, ABS
Cheng Shin	Xiamen, Kunshan	84.5	Rubber tires
Kenda Rubber	Shenzhen, Kunshan	31.6	Beverages
Transport Equipment:			
Chung Hua Motor	Fujian	1.2+	Auto parts
Kwang Yang	Changsha	16.1+	Motorcycle parts
Giant Mnftg	Kunshan, Shanghai	20.0+	Bicycles
Wintec Machine	Shantou	4.0+	Bicycle parts
Far East	Kunshan	4.0+	Metal casting
Miscellaneous:			
Yuen Foong Paper	Qingdao	92.2	Paper products
Taiwan Glass	6 major cities	99.0	Glass products
Chuen Yuan Steel	Shanghai, Beijing	54.4+	Steel products

Technology Transfer Projects from Japan to Asia	1971-1980	1981-1985	1986-1990
Taiwan	28	40	59
Hong Kong	3	2	5
Singapore	28	9	10
Malaysia	21	17	43
Indonesia	21	19	18
China	2	26	29

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Technology Transfer Channels to Asia by Japanese Firms 1986-1988[222]

	Local Production	Licensing	Joint Production	OEM
Taiwan	209	51	43	8
Hong Kong	39	5	9	1
Singapore	113	3	4	0
Malaysia	62	5	2	0
Indonesia	45	16	8	0
China	86	107	38	1

Traditional Taiwanese Firms Diversifying into High Technology After 1985

Company	Production Area	Invested Firm	New Area	Set up Date
Nan Ya Plastics	Plastics	Nan Ya electronics	DRAMs, LCDs Motherboards	1986
China Steel	Steel	Chung Te semiconductors	silicon wafer	1993
Tatung	Appliances	Chung Hwa picture tubes	CRTs, LCDs	1981
Eastern Textiles	Textiles	Vanguard	Semiconductors	1994
President Entr	Foodstuffs	Mospec	Semiconductors	1987
Yuloon Motor	Cars	Global	IC fabrication	1994
Teco Electric	Machinery	Shinsetsu	Memory chips	1995
Sampo	Appliances	Hsin Biao	IC packaging	1990
Pacific Cable	Cable, wires	Vitelic	Semiconductors	1985
Sinkong Textiles	Textiles	Li Jing	Semiconductors	1994
Walsin Lihwa	Cable, wires	Winbond	Semiconductors	1987
Yeu Tyan	Cars	Takaya	Retail, jet design	1991
Chia Hsin	Foodstuffs	Jia Shu	ASICs, DRAMs	1987

High Technology Electronics and Computer Firms Linking Cross Straits Projects under Production Integration Strategy (as of early 1996, US$ mn)

Firm Name	PRC project	FDI location	Amount	Home project
Chung Hwa Picture Tubes	14" CRT	Shanghai, Suzhou	26	15-17" CRT, LCD
Acer Peripherals	Monitors Keyboards Motherboards	Suzhou	10	DRAMs
GVC Corp	Monitors	Dongguan	8	Laptops, PCS
Delta Electronics	Power switches	Dongguan	4	Laptops, PCS
Inventec	Multimedia software	6 cities	60	Notebook PCS

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Tho and Urata in Simon, 301. See also Jack Williams, "China and Taiwan," in Denis Dwyer, ed., *China: the next decades*, (New York: Longman, 1994), 222-240.

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Liteon	Semiconductors	Tianjin Dongguan	15	Laser diodes
Primax	PC mice, scanners	Dongguan	8	Laptop PCS
Picvue	LCDs	Shanghai	1.0	LCDs

ROC Electronics and Shoe Industries' Production Data for Mainland Investments 1993 (US$ mn)[223]

Type of Firms	Electronics		Shoes	
Number of Plants	33		25	
	Prior Investment	Present	Prior Investment	Present
NT$	206.7	194.6	220.0	351.1
Revenue	467.6	781.7	273.4	136.6
Net Profits	11.7	51.0	20.9	10.0
Input source (%)				
China	2.7	23.4	5.1	13.6
Taiwan	74	57.8	77.5	68.7
Other	23.3	18.8	17.4	17.7
Machinery source (%)				
China	0.9	3.1	3.3	8.2
Taiwan	86.5	84.2	82.3	76.5
Other	12.6	12.7	14.4	15.3

Total Electronics and Shoes investment in China[224]

	Electronics	Shoes
Total ($mn)	164.7	129.4
Sole proprietor	56.3	48.0
Partnership	21.9	48.0
Joint venture	3.1	4.0
Other	6.3	0.0

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Ramon Myers and Linda Chao, "Cross-Strait Economic Relations and Implications for Taiwan," ibid., 381-86; Yu Shan Wu, "Mainland China's Economic Policy Toward Taiwan: economic needs or unification scheme?" ibid., 385-410. Cross-strait trade is underestimated because reliance on Hong Kong statistics overlooks entrepot trade from other locations and only reexport trade is calculated in Hong Kong data, leaving out transhipment and triangular trade. In 1992, cross strait total trade is estimated at US$14.8 bn (official total being US$7.4 bn). See also *Chinese Almanac of Foreign Economic Relations 1993-1994* (Beijing: Zhongguo Chubanshe, 1994), 310, 378, 382, 402-9, 411-421, 466-71 and *Zhongguo Tongji Nianjian 1993-1994* (Chinese Statistics Yearbook 1993-1994), (Beijing: State Statistical Bureau, 1994), 519, 527-31, 579, 588, 590, 593.

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Gao Zhang and Wang Jiling et. al, *Zhongguoren Daku de Jingji Heepjok* [Chinese Economic Area Integration], (Hong Kong: Gongyue Publishing, 1994), 159, 163, 166-67, 169, 176-184, 186-193; *Jingji Buguo Zhimu Yizhu Benying* [Taiwan Board of Foreign Trade], *Guozhi Muyi Qingxie Fenxie* [National Trade Patterns Analysis], (Taipei: Board of Foreign Trade, December 1995), chapter two. They point out that the division of labour between China and Taiwan has the former concentrating on production while marketing, testing, and research are conducted in the latter.

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ROC components assembled in PRC	26.9%	22.2%
PRC components assembled in ROC	34.6	44.4
ROC value added	69.2	72.2
PRC value added	3.8	5.6
PRC exports	92.9	90.9
ROC exports	21.4	22.7

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APPENDIX 4.1

Basic indicators for the JSR Growth Zone

Indicator	Johor	Singapore	Riau	Total
Area (sq km)	18914	639	3300	22853
Population (mill)	2.2	2.8	0.1	5.1
GDP (US$ mill)	4300	34600	45	38945
Per capita GDP	3594	12940	500	n/a
Indicator	Hong Kong	Guangdong	Taiwan	Total
Area	1075	180000	36000	217075
Population	5.7	62.5	20.4	88.6
GDP	59.7	30.8	157	247.55
Per Capita GDP	14150	493	7761	n/a

1989 Land and labour costs in Johor, Singapore, and Batam

Site	Land	Labour	(US$ per month)	
	US$ per sq m	unskilled	semi-skilled	skilled
Johor	4.08	150	220	400
Singapore	4.25	350	420	600
Batam	2.3	90	140	200

Singapore industrial and commercial property price trends (monthly rental) 1986-1990 (S$ per sq m)

	Industrial		Commercial	
	Prime factory	Prime warehouse	Prime factory	Prime warehouse
1986	7	9	43	194
1988	9	11	59	431
1990	27	30	140	626

Singapore average real monthly earnings (S$), productivity changes (%), and value-added

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per worker (%) 1986-1990[225]

	1986	1988	1990
all workers	1182	1240	1420
% change p.a	3.0	3.5	6.4
mnftg	967	1048	1253
% change p.a	2.3	5.1	9.3

	productivity change		value added per worker	
	all workers	manufacturing	all workers	manufacturing
1986	6.3	13.6	5.2	11
1988	4.5	2	4.3	4.1
1990	3.4	4.6	3.6	4.8

APPENDIX 4.2

Johor: sources of foreign equity in approved projects 1985-1991 (M$ million)

Country	1985	1987	1989	1991
Indonesia	n/a	n/a	1.4	24.3
Hong Kong	3.2	6.5	36.3	65.6
Singapore	17.6	41.7	131.5	294.5
Taiwan	5.5	54.4	98.9	395.7
Japan	2.9	43.6	282.7	221.1
US	0.5	10.5	15.6	32

Batam: sources of approved private limited companies with foreign equity December 1991 (US$ million)

	Total Investment		Total Foreign	Companies
Country	US$ million	% of total	Number	% of total
Singapore	531.8	50.5	51	51
US	159	15.2	11	11
Japan	119.8	11.4	11	11
Hong Kong	88.7	8.4	5	5

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Sree Kumar, "Johor-Singapore-Riau Growth Triangle: a model of subregional cooperation," in Tang, Thant, Kakazu, eds., 179-215; G. Naidu, "Johor-Singapore-Riau: Progress and Prospects," in ibid., 222-39.

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Holland	35.6	3.4	6	6

Asian NIEs currencies in relation to the Yen 1970-1990 (local currency per 100 Yen)

Year	Hong Kong	Singapore	Taiwan
1970	1.69	0.86	11.14
1984	3.28	0.88	16.67
1990	5.39	1.24	19.75

Real Effective Exchange Rates 1985-1992 (1985=100)

Country	1985	1987	1989	1991	1992
Japan	100	135.2	130.8	125.6	130
Hong Kong	100	92.1	91.5	120.4	125.9
Singapore	100	83	94.1	87.6	91.1
Taiwan	100	91	109.1	103	108.4
Indonesia	100	57.8	56.8	53.7	54.5
China	100	69.5	89.8	59.9	58.3
Malaysia	100	80.7	69.3	63.9	68.1

Exchange Rates (Singapore $ per) 1985-1993[226]

Year	Mly Rgt	US$	100 Yn	100 NT$	HK$
1985	0.872	2,105	1.05	5.2823	0.2695
1986	0.8357	2.175	1.3583	6.1431	0.2789
1987	0.8021	1.9985	1.6324	7.0	0.2574
1988	0.7175	1.9462	1.5464	6.906	0.2492
1989	0.7014	1.8944	1.3220	7.2457	0.2426
1990	0.6461	1.7445	1.2913	6.4337	0.2237
1991	0.6162	1.6895	1.2713	6.3755	0.2182
1992	0.6306	1.6449	1.3198	6.4758	0.2125
1993	0.6249	1.6233	1.5209	6.1382	0.2095

Selected Asian Exchange Rates Relative to the US Dollar (Local Currency in US Dollar terms, January 1985-January 1997)

Currency	1985	1987	1989	1991	1993	1995	1997
Chinese Yuan	2.9	3.9	3.9	5.2	5.8	8.6	8.3
Hong Kong Dollar	7.81	7.7	7.78	7.74	7.73	7.74	7.75
Indonesia Rupiah	1100	1700	1750	1900	2100	2250	2500
Japan Yen	255	155	125	140	130	90	125
Malaysia Ringgit	2.57	2.55	2.75	2.8	2.65	2.55	2.45
Singapore Dollar	2.25	2.15	1.90	1.75	1.65	1.45	1.40

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Department of Statistics, *Economic Survey of Singapore*, various editions; Peter Dicken and Colin Kirkpatrick, "Services-Led Development in ASEAN: transnational regional headquarters in Singapore," *Pacific Review*, 4/2 (1991): 174-183.

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Selected Asian Exchange Rates Relative to the US Dollar (Local Currency in US Dollar terms, 7 October 1997)

Hong Kong Dollar	7.7356
Indonesia Rupiah	3720.0
Japan Yen	121.91
Malaysia Ringgit	3.3690
Singapore Dollar	1.5400
Taiwan Dollar	28.580

World Oil Prices (Arabian Light Spot, US$ per barrel and % change) 1973-1996

1973	2.81	54.4%	1991	17.45	-15.7%
1975	10.43	-5.0%	1992	17.86	2.3%
1977	12.57	8.1%	1993	15.70	-12.1%
1979	29.19	126.1%	1994	15.39	-2.0%
1981	34.17	5.1%	1995	16.81	9.2%
1983	28.67	-9.7%	1996	19.09	13.6%
1985	27.45	-2.3%			
1986	13.33	-51.4%			
1987	17.33	30%			
1988	13.40	-22.7%			
1989	16.21	21.0%			
1990	20.71	27.8%			

Singapore GDP by sector 1980-1990 (1985 market prices, %)[227]

Industry	1980	1984	1990
Manufacturing	29.5	25.0	29.0
Construction	7.1	12.5	5.3
Commerce	18.9	17.0	17.6
Transport, communications	12.0	13.0	14.2
Financial & business services	20.5	23.6	26.2

Singapore manufacturing employment and output 1980-1990 (%)

Employment	1980	1984	1990
Textiles and garments	12.9	10.8	8.8
Printing and publishing	4.2	5.2	4.5

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Huff, 303-7, 310-6, 321-5, 331, 338. Interpreting Singaporean statistics for domestic exports can be problematic due to the need to exclude their import content, in order to estimate the value added derived from Singapore activity.

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Petroleum refining	1.2	1.3	0.9
Electrical machinery	5.6	6.0	6.3
Electronic Components and products	25.1	26.4	34.9
Transport equipment	9.6	9.1	7.4

Output	1980	1984	1990
Textiles and garments	4.2	3.3	3.0
Printing and publishing	1.7	2.3	2.5
Petroleum refining	36.4	30.3	15.9
Transport equipment	6.5	4.8	5.3
Electrical machinery	3.1	3.6	3.4
Electronics	16.8	23.4	39.1

Singapore Manufacturing Output, Value Added, and Employment by Major Sectors 1991-1992 (S$ mn)

	Output	% of Total	Value added	% of Total	Employment	% of Total
Electronics	28957.7	38.8	8027.6	34.2	123358	34.4
Petroleum	11288	15.1	2023.2	8.6	3725	1.0
Transport equipment	4014.1	5.4	1712.6	7.3	29737	8.3
Metal products	4129.2	5.5	1503.5	6.4	30593	8.5
Electrical machinery	2639.9	3.5	967.4	4.1	20768	5.8
Machinery (excluding electrical)	3723	5.0	1417.3	6.0	24113	6.7

Electronics	30853.9	40.5	8669.8	35.7	120384	34
Petroleum	10498.7	13.8	1791.6	7.4	3766	1.1
Transport equipment	4323.1	5.7	1936.8	8.0	31967	9.0
Machinery (excluding electrical)	3810.2	5.0	1446.3	6.0	24703	8.7
Electrical	2689.9	3.5	986.2	4.1	19749	5.6

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machinery						
Metal products	4406.1	5.8	1641.9	6.8	30858	8.7

Annual manufacturing wages by country 1988-1991 (Y1000 and US100)

Country	1988	1991	1988	1991
US	322.8	389.8	100	100
Japan	354.5	404	110	108
Singapore	85.2	138.9	26	37
Hong Kong	92.7	145	29	39
Taiwan	91.7	148.4	28	40

Malaysia's manufacturing costs relative to Singapore 1992 (cost in Malaysia relative to Singapore)[228]

Direct labour costs	40-63%
Indirect labour costs	52-79%
- Unskilled worker salary	60-80%
- Technician salary	20-35%
- Engineer salary	33%
Fixed overhead	30-40%
Rental per sq metre	30-60%
Interest costs	160%
Unit production costs (excluding raw materials)	60- 100%

APPENDIX 4.3

Singapore Direct Investment Abroad 1990-1993 (S$ 000, various countries)[229]

Country	1990	1991	1992	1993
Indonesia	224818	267304	328076	517264
Malaysia	2790072	3121120	3916450	4656652
HK	2266152	2368620	3051113	4025550
ROC	494779	287046	349508	354516
PRC	239735	220004	282565	444097

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Michael Webber, "Changing Places in East Asia", 23-30, 33-38, 40-49 and Gordon Clark, "Corporate Strategy and Industrial Restructuring," 53-67 in Clark and Kim.

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Department of Statistics, *Singapore's Investment Abroad 1990-1993*, (Singapore: Department of Statistics, 1994), 42-3, 52-59.

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Singapore companies in Indonesia and Malaysia, respectively, by sector 1990-1993[230]

Manufacturing	Construction	Commerce	Transport	Financial	Real estate
11	2	19	3	22	2
266	32	341	55	260	33
25	5	23	5	23	1
313	26	374	42	295	33
36	7	37	5	29	7
322	19	356	36	297	42
45	8	34	5	36	8
365	19	353	41	288	52

Singapore DI in Indonesia and Malaysia, respectively, by sector 1990-1993 (S$ 000)

Manufacturing	Construction	Commerce	Transport	Financial	Real estate	Year
21102	-669	23478	41728	121157	5484	1990
539324	23300	481212	21994	1343985	168137	
38001	-771	26222	49546	143896	1200	1991
731510	8960	563385	34744	1408683	146729	
51337	1828	35710	52087	177965	4526	1992
1220300	19237	676702	28789	1550362	170603	
82979	1761	20215	80347	303021	22879	1993
1858732	17801	647583	30103	1657868	186181	

Sources of Approved FDI in Johor 1985-1991 (M$ m)

Japan	1985	% share	1987	% share	1989	% share	1991	% share
	2.9	5.8	43.6	21.9	282.7	41.2	(Ja-No 221.1	10.4
Taiwan	5.5	11	54.4	27.3	98.9	14.4	395,7	18.7
Singa-pore	17.6	34.8	41.7	20.9	131.5	19.2	294.5	13.8
US	0	0	10.5	5.3	15.6	2.3	32	1.5
ROK	na	0	na	0	18.3	2.7	307.5	14.5
UK	1.7	3.4	na	0	31.5	4.6	36.3	1.7
Indo-nesia	na	0	na	0	1.4	0.2	24.3	1.0

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Department of Statistics, *Singapore's Investment Abroad 1976-89*, (Singapore: Department of Statistics, October 1991), 16-17.

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Manufacturing project approvals in Johor 1992-1996 (RM mn)

No. Of Approvals			Employment			Total Proposed Investment		
1992	1994	1996	1992	1994	1996	1992	1994	1996
236	193	173	29922	25168	20451	2289	1884	5986

Total PMA Investment in Batam, December 1991 (US$ m and % share)[231]

Singapore	531.8	50.5%
US	159	15.2
Japan	119.8	11.4
Hong Kong	88.7	8.4
Holland	35.6	3.4
UK	31.5	3.0
France	24.0	2.1
Taiwan	18.8	1.8

Approved FI on Batam 1985-1990 (US$,000)

Sector	1985	1986	1987	1988	1989	1990
Electronics	0	0	0	500	0	25500
Oil equipment	4981	0	0	0	4500	0
Foodstuffs	0	1000	0	16300	26300	10000
Tourism	0	0	0	42066	60500	53000
Steel, Iron	0	0	0	1000	48000	1200
Chemicals	3495	0	0	0	0	0
Real estate	0	0	0	1500	0	191275

Government and Private Investment Data for Batam Island 1983-1997 (June, US$ mn, % change)

	1983	1993	1995	1996	1997
Government	253.0 (50%)	743 (16.4%)	1205 (20%)	1427 (23.3%)	1485 (23%)
Private	249 (50%)	3782 (83.6%)	4773 (80%)	4704 (77%)	4983 (77%)

Approved FI in Batam by origin and sector 1985-1991 ($000)

	1985	1989	1991
Japan	4000	54000	617780
Singapore	31564	139364	409830
US	167991	167991	177596
HK	n/a	n/a	38,500
Holland	9450	18950	34574

231

Mubariq Ahmad, *Economic Cooperation in the Southern Growth Triangle*, paper presented at 23-24 April 1992 NUS Regional Cooperation conference, 44, 49-50, 57-9; Malaysian Industrial Development Authority, *Manufacturing Sector Statistics 1992-1996*, (Kuala Lumpur: MIDA, 1997).

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total Indonesia ($ billion)	14230	25757	38782
total Batam	222448	476114	866656
($ million)			
electronics	n/a	0.5	88.2
chemicals	3.5	3.5	3.5
oil/mining equipment	108.93	113.43	113.43
steel/iron	76.5	125.5	131.9
food/agriculture	n/a	43.6	53.6
tourism	31.56	134.13	221.33
real estate	n/a	1.5	222.85

APPENDIX 4.4

Singapore reexports by country of destination (US$ millions and % of total reexports)

Country	1980	1985
Malaysia	1852.6, 27.5	1812.1, 23.1
China	166.5, 2.5	146.5, 1.9
Hong Kong	245.6, 3.7	513.8, 6.5
Japan	195.2, 2.9	364.5, 4.6
United States	582, 8.7	1098.1, 14

Main markets for Singapore export commodities 1993 (S$ m)[232]

Domestic exports	1st market	Value	2nd market	Value
Data processing machines	US	8153	Holland	1758
Refined petroleum	Hong Kong	2558	Malaysia	1845
Electronic valves	US	1939	Malaysia	1384
Data processing machine parts	US	2811	UK	429
Telecommunications equipment	Hong Kong	968	US	933
Radio receivers	US	439	Germany	138
VCRs	US	296	Germany	239

232

Rob Steven, *Japan and the New World Order*, (London: Macmillan Press, 1996), 252, 256; Hidaki Ohta, "Evolving FDI Strategies of Japanese Firms in Asia," in ISEAS-Nomura Research Institute, *The New Wave of FDI in Asia*, (Singapore: ISEAS, 1995), 44-51, 56-60; Barbara Stallings, *Global Change and Regulatory Response*, (New York: Cambridge University Press, 1995), 230-33; EIU, *Singapore Profile 1994-95*, (London: EIU Publications, 1995), 31.

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Electrical circuits	Malaysia		495	US		175		

Exports and Imports by commodity and destination, Jan-Sept 1992-1993 (S$ mn)[233]

Exports:	USA		Malaysia		Hong Kong		Japan	1993
	1992	1993	1992		1992	1993	1992	
Petroleum	186	204	1647	1453	1354	1943	1143	1016
Chemicals	644	759	893	1219	348	374	303	381
Textiles	20	19	465	615	54	47	14	15
Metal manufactures	127	129	615	958	144	136	180	160
Machinery	12326	14272	4247	6427	2739	3865	2110	2843
Scientific equipment	296	339	278	347	249	376	244	294
Clothing	1210	1008	44	51	16	15	42	45
Imports:								
Petroleum	76	125	1440	1332	350	268	78	73
Scientific instruments	835	1119	163	270	856	925	26	32
Chemicals	1102	1205	260	401	2065	2481	71	75
Textiles	281	289	186	246	138	104	98	115
Metal manufactures	381	466	170	285	254	239	25	27
Machinery	12365	15828	5887	9275	7829	9847	2094	3003
Transport equipment								
Clothing and footwear	37	42	815	1050	34	47	59	58

Singapore's Top Five Exports and Imports 1980 and 1994 (% share)[234]

	1980 Exports	Imports		1994 Exports	Imports
Refined petrol	28.2	Crude petrol	23.7	Data Processing Machines 15.1	Electronic valves 14.2
Natural rubber	7.9	Refined petrol	5.2		
Oil bunkers	6.2	Electronic valves	4.9	Electronic valves 12.4	Crude petrol 5.7

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Haggard, 205-8; Deyo, 26-8; Economist Intelligence Unit, *EIU Country Report #1 1993: Singapore*, (London: EIU Publications, 1993), 27-29; Chia Siow Yue, "FDI in ASEAN Economies," *Asian Development Review*, 11/1 (1993), 61-9.

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Ministry of Trade and Industry, *Economic Survey of Singapore 1994*, (Singapore: MTI, February 1995), 92, 101, 111, 118, 148, 150, 156; Ministry of Information and the Arts, *Singapore in 1995*, (Singapore: MIA, 1995), 21.

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Electronic valves 6.1	Crude rubber 4.2		
Radio receivers 3.3	Aircraft 2.2 parts	Office Machines 7.6	Data process machines 5.0
Refined petrol 7.5	Telecommunication Equipment 6.3	Office machine parts 4.3	Electronic components 6.0

Singapore's Top Export Destinations, Reexports, % change, and % of total Exports (S$, 1994)

Malaysia	29.1 bn (72%)	15.7 bn (75%)	20%
United States	27.6 bn (14%)	5.9 bn (17%)	19%
European Union	19.1 bn (14%)	5.6bn (24%)	13%
Hong Kong	12.8 bn (24%)	5 bn (36.4%)	8.7%
Japan	10.3 bn (16%)	na (-8.5%)	7.0%

Singapore Manufacturing Statistics 1981-1992

	1986	1988	1990	1992
Establishments	3456	3629	3707	3846
Employment (,000)	247.1	324.9	351.8	354
Output (S$ m)	37386	56714	71458	76145
Value added (S$ million)	11908	17932	21615	24262
% of output	31.8	31.6	30.2	31.9
Direct exports (S$ m)	24477	37999	47100	47512
% of output	65.5	67.2	65.9	62.4

Singapore exports to Malaysia 1978-1980 and 1988-1990 (annual average)[235]

SITC	1978-1980 $000	%	1988-1990 $000	%
0-4 Raw materials	1640138	35.6	2600698	22.2
0 Food	508160	11	444312	3.8
3 Mineral fuels	941600	20.4	1715979	14.7
5-8 Manufactures	2887334	62.6	8943496	76.5
14-15 Machinery and transport equipment	1499529	32.5	5121896	43.8
Total	4612978	100	11694565	100

[235] See Ministry of Trade and Industry, *Economic Survey of Singapore (1995-1997)*, (Singapore: MTI, 1997).

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exports					
% of Total Singapore Exports	20.7		14.5		13.4

Singapore imports from Malaysia 1978-1980 and 1988-1990 (annual average)

SITC	%	1978-80 $000	%	1988-90 $000	%
0-4 Raw materials & food	93.4	4172914	76.8	5237957	38.6
3 mineral fuels	23.5	929119	17.1	2034975	15.0
5-8 Manufactures	5.2	241982	22.9	8278210	61.1
7 Machinery and transport equipment	1.8	569360	10.5	5374018	39.6
Total imports	100	5434215	100	13558703	100
% of Singapore imports	19.0		13.7		13.8

Reexports, Fuel, Office machine, and electronic domestic exports 1980-1990 (US$ million and % of total domestic exports)

	1980	1988	1989	1990
Reexports	7307.6	4657	16338	17904
Fuels	6622.5	5635.6	6780	9455
	(55)	(23)	(24)	(27)
Office Machines	123	4830	6050	8011
	(1)	(20)	(21)	(23)
Electronics	1903	4574	5046	5514
	(16)	(19)	(18)	(16)

Approved investments in Johor and Malaysia 1986-1990 (M$ million)

	AI in Malaysia	AI in Johor	Johor as % of Malaysia
1986	5163.2	440	9
1988	9093.9	1829.5	20.1
1990	28168.1	2090	7.4

Malaysian manufactured imports and direct investments from Japan 1985-1991

Year	Intermediate goods/SITC 5-6	% of total imports from Japan	Capital goods-SITC 7	%	Direct investment (Rm mn)
1985	1953.5	27.9	4371.8	62.4	264.4

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1990	4665.1	24.5	12831.1	67.3	4212.6
1991	6331.3	24.1	17852.3	67.9	3157.7

Malaysian exports and imports to Japan 1985-1991 (Rm million)[236]

SITC/Year	Crude materials-inedible goods	Mineral fuels	Manufactured transport equipment	Machinery,
1985	2340.5	5486.4	424.5	476.5
1990	3467.2	5092.4	608.6	2275
1991	3358.6	5372.4	763.4	3659.2
SITC/Year				
1985	63.7	13.8	1802. 1	6713.2
1990	122.3	25.6	3299. 7	12831.5
1991	174	35	4670.1	17852.3

Destinations of Malaysian Electronic Component Exports 1993-1994 (Rm mn, % share, and annual % change)

Country	1993		1994		Annual Change
	Rm mn	(%)	Rm mn	(%)	
US	3308.3	37.5	3989.9	35	20.6
Singapore	1620.8	18.3	2498.5	21.9	54.2
Japan	851.8	9.6	948.4	8.3	11.3
HK	703.1	7.9	784.3	6.9	11.5
UK	681.6	7.7	858.5	7.5	25.9

Malaysia's SITC 6+8 Imports (Manufactured Goods) 1988-1994 (Rm mn and % of total)[237]

	1988	1990	1992	1993	1994
Japan	2655, 27.6	4599, 27.1	6419, 29	7426, 30.6	4044, 29.2
Singapore	788, 8.2	1850, 11	2241, 10	2335, 9.6	1246, 9.0
Taiwan	815, 8.5	1665, 9.8	2206, 10	2135, 8.8	1172, 8.5
US	802, 8.3	1269, 7.5	1761, 8	2142, 8.8	1312, 9.5
HK	526, 5.5	696, 4.1	989, 4.5	915, 3.8	496, 3.6
ROK	465, 4.8	775, 4.6	967, 4.4	1147, 4.7	578, 4.2

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Mohammed Aslam and Mohd Haflah Piei "Malaysia and Japan: unequal trade partners," in Jomo K.S, *Japan and Malaysian Development* (London: Routledge, 1994), 21-29; Mehmet Sami "The Evolution of Japanese Investment in Malaysia," in ibid. 67, 71-72; Makato Anazawa, "Japanese Manufacturing Investment in Malaysia," in ibid., 75-85, 89-96; Anuwar Ali, "Japanese Industrial Investments and Technology Transfer in Malaysia," in ibid., 102-23. See also Anuwar Ali, *Malaysia's Industrialization* (London: Oxford University Press, 1992), 6-27, 56-74; Jomo K.S, *Industrializing Malaysia*, (London: Routledge, 1993), 1-12.

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Ministry of Finance, *Malaysia Economic Report 1994-1995*, (Kuala Lumpur: Ministry of Finance, 1994), xxviii-xxix, 131-32, 148-51, 158-9. For an insightful discussion of the technology transfer difficulties faced by Malaysian SMEs vis-a-vis Japanese MNCs, see Lynne Guyton, "Japanese Investments and Technology Transfer to Malaysia," in John Borrego et. al, eds., *Capital, the State and Late Industrialization*, (Boulder: Westview, 1996), 180-199.

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APPENDIX 5.1

Japanese Direct Investment in Selected NICs (US$ million)[238]

	1985	1986	1987	1988	1989	1990	1951-90
Taiwan	114	291	367	372	494	446	2731
HK	131	502	1072	1662	1898	1785	9850
Singa-pore	339	302	494	747	1902	840	6555
Malaysia	79	158	163	387	673	725	3231
Indonesia	408	250	545	586	631	1105	11540
China	100	226	1226	296	438	349	2823

Number of Japanese corporations in China, by industry as of March 1992[239]

Category	# of companies	Cases w/50+% Japanese capital outlay
Electrical machinery	36	24
Precision instruments	9	8
Automobiles	7	1
Machinery	6	4
Electric wires	2	2
Foodstuffs	17	3
Chemicals	13	6
Textiles	15	8
Construction	10	7
Trading companies	36	5

Cumulative Approvals of Japanese DI abroad 1983-1988 (US$ million)

Country	Textiles	Ferrous & Non-ferrous Metals	General Machinery	Electrical Machinery	Transport Machinery	Year
Hong Kong	114	5	17	20	0	1983
	127	25	55	114	1	1988
Singapore	17	43	183	172	114	1983
	18	90	356	400	127	1988
Taiwan	47	34	62	157	15	1983
	55	126	140	428	256	1988
Indonesia	366	1136	21	41	72	1983

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Shaun Breslin, "China in East Asia: the process and implications of regionalisation," *Pacific Review* 9/4 (1996): 463-479. Yamashita, 341. Data drawn from Export-Import Bank of Japan and Japan's Ministry of Finance (1990).

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Robert Taylor, *Greater China and Japan: prospects for an economic partnership in East Asia*, (London: Routledge Press, 1996), 72-78, 94-98, 129-61 and Christopher Howe, ed., *China and Japan: history, trends, and prospects*, (London: Clarendon Press, 1996), particularly the chapters by Howe and Shambaugh.

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	554	1409	32	73	162	1988
Malaysia	120	59	9	66	10	1983
	143	188	52	382	184	1988

Purchases and sales of Japanese Overseas affiliates in Asian manufacturing 1989 (Yn bn)[240]

Sector	Pur-chases	Sources (% from Japan/ % intrafirm)	Third Country	Local	Sales	Destin-ation (% from Japan/ % intrafirm)	Third Country	Local
Electrical machinery	1428	45/65	13/30	42/5	1987	27/60	36/44	38/13
Transport	717	42/49	1/1	58/2	979	2/36	6/9	92/6
Chemicals	263	35/84	9/34	56/3	429	10/40	12/35	78/4
Textiles	137	22/19	35/24	43/5	249	15/50	15/17	71/5
General machinery	138	43/79	4/32	54/1	204	18/99	25/45	57/1
Precision machinery	84	45/96	13/86	42/4	200	22/51	23/55	55/16
Metals	209	18/42	23/3	59/5	344	12/17	15/7	73/4

Distribution of Manufacturing FDI by Source Country in China: 1992 Survey Data (%)

Sector	HK	Taiwan	US	Japan
Manufacturing	59.13	76.72	73.71	33.93
Processed foods	2.72	8.09	7.71	1.43
Textiles	9.59	7.92	3.23	1.15
Apparel	5.98	5.12	2.24	4.12
Chemicals	2.01	3.64	4.75	1.32
Plastics products	5.44	9.35	2.23	0.69
Metal products	2.83	5.25	6.94	1.07
Machinery	1.10	3.59	3.13	2.34
Electrical appliances	9.47	9.37	9.42	3.87

Japanese FDI by economy and sector 1955-1989 (US$ million)

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Eric Ramstetter, "Prospects for Foreign Firms in Asia," *Asian Development Review*, 11/1 (1993), 166-75, 180-3; Shujiro Urata, "Regionalisation in Pacific Asia," *Business and the Contemporary World*, 5/4 (Autumn 1993), 26-43; K. Machado, "Japanese FDI in East Asia's division of labour and future regionalism," in Steve Chan, ed., *FDI in a Changing Global Political Economy*, (London: Macmillan Press, 1995), 53-63; Economist Intelligence Unit, *EIU Hong Kong Report #1 1992*, (London: EIU Publications, 1992), 18; Eric Ramstetter, *Direct Foreign Investment in Developing Countries and Structural Change in Asia*, (Boulder: Westview Press, 1991), 175-85, 188-96, 249, 259, 269, 284, 302-9; M. Van den Berg, "Culture as ideology in the historical roots of Japan's regional regulation strategies," *Review of International Political Economy*, 2/3 (Summer 1995), 387-9.

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Sector	Hong Kong	Taiwan	Singapore	Malaysia	Indonesia
Textiles	143	64	19	145	572
Chemicals	21	187	723	264	211
Metal Products	35	183	104	233	1429
Machinery	74	169	386	78	34
Electrical machinery	140	506	491	655	88
Transport equipment	1	269	127	187	189

Japanese ODI in East Asia by industry 1951-1993 (US$ million and % share)[241]

	1951-1993		1990		1993	
manufact-uring	115112	27.2	15487	27.2	11132	31
chemicals	16300	4	2292	4	1742	5
machinery	11491	3	1454	3	1171	3
transport	15007	3.6	1872	3.3	942	2.6
electronics	27235	6.4	5684	10	2762	8
commerce	45364	11	6158	11	5095	14
banking	81271	19	8047	14	6401	18
services	50152	12	11292	20	3543	10
real estate	65966	15.6	11107	20	6070	17

Japanese subsidiaries by industry in Malaysia

Industry	1981-85	1986-90	1991	1992
Construction	28	10	4	1
Chemicals	5	23	4	1
Non-ferrous metals	4	16	3	1
Metal products	5	12	3	1

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Chia Siow Yue, "Trade and FDI in East Asia," in Dobson and Flatters, eds., 51-57 and 60-67; Katsuto Kondo, "The globalization of Fujitsu," in Simon, ed., 268-89; Richard Pomfret, "ASEAN: always at the crossroads?" *Journal of Asia Pacific Economy*, 1/3 (1996), 370-71, 376-378; Deyo, 99-100, 103, 189-90; Regnier, 100-136; Rachel van Elkan in Ken Bercuson, ed., 16; Huff, 346-7. The high savings rate induced by the PAP's use of the CPF and Postal Savings helped lessen inflationary pressure by lowering private sector purchasing power and aided the government's financing of infrastructure, housing, and foreign reserve accumulation. The use of CPF withdrawals to buy subsidized housing helped make home ownership more available, a PAP objective, along with medical care and education expenses.

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Machinery	6	4	na	1
Electrical and electronics	4	73	16	4
Auto parts	7	5	na	3

Approved FDI in Asian Countries by Country of Origin (US$ mn and percentage)

Recipients	Investing Countries		
	US	Japan	NIEs
Malaysia			
1986	7 (3.3)	23 (11.1)	48 (23.7)
1988	96 (12.6)	214 (27.9)	271 (35.3)
1990	69 (3.0)	657 (28.5)	1100 (47.8)
Indonesia			
1986	128 (16)	325 (40.6)	84 (10.5)
1988	731 (16.6)	256 (5.8)	1530 (34.7)
1990	153 (1.7)	2241 (25.6)	2598 (29.7)
Taiwan			
1986	138 (19.5)	254 (36)	65 (9.2)
1988	135 (12.7)	432 (40.7)	129 (12.2)
1990	540 (25.9)	827 (39.7)	247 (11.9)
Singapore			
1986	204 (37.3)	226 (41.3)	n.a
1988	291 (35.3)	344(41.7)	n.a
1990	582(47.6)	391 (32)	n.a
China			
1986	326 (14.5)	263 (11.7)	1342 (59.8)
1988	236 (7.4)	515 (16.1)	2123 (66.5)
1990	284 (8.4)	356 (10.5)	2162 (63.7)

Japanese FDI in selected NIC manufacturing 1981-1988 (US$ million)

	1981-1984	1985-1986	1987-1988
Singapore manufacturing/total	664/994	197/641	441/1242
Taiwan manufacturing/total	229/277	383/405	518/740
Hong Kong manufacturing/total	49/1704	66/633	193/2734
Malaysia manufacturing/total	466/595	97/237	494/550
Indonesia manufacturing/total	743/4001	93/658	593/1131
China manufacturing/total	30/162	45/326	273/1523

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Japanese Direct Investment in Asia (US$ mn)

	1985	1986	1987	1988	1989	1990	1951-90	Share of DFI
Taiwan	114	291	367	372	494	446	2731	30.4
HK	131	502	1072	1662	1898	1785	9850	26.6
Singapore	339	302	494	747	1902	840	6555	24.0
Malaysia	79.0	158	163	387	673	725	3231	31.1
Indonesia	408	250	545	586	631	1105	11540	15.5
China	100	226	1226	296	438	349	2823	16.1

	1991	1992	1993
Taiwan	na	na	na
HK	na	na	na
Singapore	613	670	644
Malaysia	880	704	800
Indonesia	1193	1676	813
China	na	na	na

Selected Japan-ASEAN trade 1985-1993 (US$ m)[242]

Japan's trade with:		1985	1987	1989	1990	1991	1992	1993
Indonesia	imports	10119	8427	11021	12721	12770	12244	12478
manufactures as % of I		4.3	11.6	19.7	15.6	16.8	19.6	26.4
	exports	2168	2168	4124	5511	7635	8116	9649
Malaysia	imports	4330	4772	5107	5402	6471	6573	7642
manufactures as % of I		9.3	9.0	15	20.2	28.2	31	35.5
	exports	937	1415	2381	2504	2659	3517	4814
Singapore	imports	1594	2048	2952	3571	3415	3097	3602
manufactures as % of I		28.5	42.1	55.8	50.9	58	64	71.9
	exports	2030	2953	6838	9126	9431	10366	12261

Recipient countries and sectors of Japanese total FDI to March 1994 (US$ mn)[243]

LDCs	Materials	Mach-inery	Com-merce	Financial Institutions	Services	Transport	Real estate
Indonesia	3430	680	82	1017	489	10	178
Hong	182	377	2977	2900	1851	354	1707

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Yamashita, 341. Data drawn from Export-Import Bank of Japan and Japan's Ministry of Finance (1990). Dipo Alam, "Building a Strong S&T System in Indonesia: Policies in a Transitional Economy," in Simon, ed., 188. The data for Malaysia reflects foreign equity and loans in Malaysian Industrial Development Authority approved manufacturing projects. The Indonesian data reflects projects, involving foreign capital, approved by BKPM-National Investment Coordinating Board.

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Noriatsu Matsui, "New Economic Patterns in East Asia: direct investments and competition between the US and Japan," *Journal of Asia Pacific Economy*, 1/1 (1996), 47 and 49. Data for Hong Kong, Singapore, and Malaysia are for manufacturing only; Yuhanis Kamil, "A Malaysian Perspective," in Lee Tsao Yuan, ed., *Growth Triangle*, 50-70.

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Kong							
Singa-pore	1536	1197	950	1228	444	734	734
China	293	812	85	25	1136	51	187
Malaysia	1033	1773	461	189	210	26	215

APPENDIX 5.2

Taiwan's Annual New Investments in China and Southeast Asia, 1959-1993

Year	1959-86	1988	1990	1992	1993
China Capital (US$m)	220.0	420	1000	5547	5520
Case #	80	335	1117	6430	5602
Capital/Case (US$m)	2.75	1.25	0.9	0.86	1.0
Singapore Capital (US$m)	61.62	0.67	3.16	0.19	na
Case #	48	3	3	1	na
Capital/Case (US$m)	1.28	0.22	1.05	0.19	na
Malaysia Capital (US$m)	50.89	313	2383	602	346.5
Case #	138	111	270	137	86
Capital/Case (US$m)	0.37	2.82	8.83	4.39	4.03
Indonesia Capital (US$m)	170	913	618	0.0	

Taiwan-invested Factories in China and Southeast Asia by Employment Size and Type, 1992[244]

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Xiangming Chen, "Taiwan Investments in China and Southeast Asia," *Asian Survey*, 36/5 (May 1996), 448-54, 457-62, 464-66. Tables drawn from 449-50. State concern regarding Taiwanese investments in China and Southeast Asia have internationalized state-business

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Employment Size and Type	China		Southeast Asia	
	# of firms	%	# of firms	%
Total employment 1-200	38	56.8	17	58.6
201-500	21	31.3	4	13.8
501-1500	7	10.4	7	24.1
Over 1500 Total	1 67	1.5 100	1 29	3.4 100
Managers 0-10	31	46.3	10	37
11-50	29	43.3	14	51.8
Over 51 Total	7 67	10.5 100	3 27	11.1 100
Engineers-Technicians 0-10	40	74	13	54.2
11-50	13	24.1	8	33.4
Over 51	1	1.9	3	12.5
Total	54	100	24	100

Taiwan's Investment in selected ASEAN countries 1985-1994 (US$,000)

	Indonesia	Malaysia	Singapore
1985	253	1000	n/a
1986	434	1780	n/a
1987	1301	950	5831
1988	6433	1923	2708
1989	5209	311	158,646
1990	47,622	61,817	184,885
1991	12,540	160,341	442,011

relations through government sponsored research and promotion entities. For example, the Kuang Hwa Industrial Zone on Batam is run as a joint venture between a Taiwanese firm and Singapore GLCs. Occupying 399 hectares in total, there are over 200 light industry factories on a self contained industrial estate. The capital flows from Taiwan to ASEAN and the mainland are connected to investments from Hong Kong, Singapore, and overseas Chinese communities to/from other parts of Asia Pacific.

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1992	8790	39,930	155,727
1993	69,473	25,531	64,542
1994	100,732	20.571	101,127

Taiwan's Investment (US$,000) in selected ASEAN industries 1952-1994[245]

	Singapore		Indonesia		Malaysia	
	Amount	%	Amount	%	Amount	%
Textiles	9278	3.5	58,353	17.2	120,310	10.7
Chemicals	1259	0.5	14,308	4.2	104,291	9.0
Rubber	9223	3.5	34,133	10.1	15,150	1.3
Nonmetal products	3054	1.1	54,900	16.2	33,528	3.0
Metal products	1007	0.4	31,791	9.4	428,044	38.1
Electrical Products	71,391	27.2	31,791	9.4	352,244	31.4

APPENDIX 5.3

Selected list of Foreign Companies in Batam, line of business, location, August 1991 (N=113)

PT Astra Microtronics	integrated circuits	Muka Kuning-BIP
Bengint Nusantara	box packaging	Tanjung Uncang
Foh Pin Industry	jewellry	Sekupang
Janur Bahari	ship repair	Tanjung Uncang
Keppel Resorts	recreation, hotels	Nongsa
Lingtronik Indonesia	electronics	Batu Ampar
Marina Bay	real estate	Tanjung Uncang
Shinton electronics	electronic parts	Muka Kuning
Mamsa Rexina	pipes, tubing	Batu Ampar
Tomy Toys	toys	Batam Centre
Drilco Sumber Daya	precision tools	Batu Ampar
McDertmott	offshore oil rig	Batu Ampar
Mitsui KYS	steel construction	Muka Kuning
Champion Kurniya	chemicals	Batu Ampar
Indothai Union	food products	Tanjung Uncang
Sunrise Industry	car parts	Tanjung Uncang

Company in operation, nationality, and manufacturing type in Batamindo Industrial Park

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Economist Intelligence Unit, *EIU Country Report #4 1993: Singapore*, (London: EIU Publications, 1993), 9-10, 25-26; Samuel Ku, "The Political Economy of Taiwan's Relations with Southeast Asia: the Southward Policy," *Contemporary Southeast Asia*, 17/3 (December 1995), 285, 288, and 291. For growth triangle actors, attracting FDI, from various sources, into the area will be made more difficult by competition from emerging economies (Vietnam, China) and other triangles.

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(31August 1995)

PT Amcol Packaging (Japan)	Cartons and corrugated boxes
PT Asahi Electronics Indonesia (Japan)	Telephone answering machines
PT Asia Matsushita Battery (Japan)	Rechargeable battery assembly
PT Astra Microtronics (Indonesia)	Integrated circuit packaging, testing
PT Kyocera (Indonesia/Japan)	Electronic components
PT BJ Industries (Indonesia/Singapore)	Precision machining
PT Beohringer Mannheim (Gennany	Health care products
PT Bowater Bulk Packaging (UK)	Woven polythene bags
PT CIBA Vision (US)	Contact lenses
PT Columbia Offset (Singapore)	Color separation
PT Cheng Metalworks Batam (Indonesia-Singapore)	Metal stamping
PT EG Heimann Optoelectronics (US)	Flash tube, wire assembly
PT Epson Batam (Japan)	Watch casings
PT Etronix Manufacturing (Singapore)	PCB assembly
PT Evox (Korea)	Capacitors
PT EX Batam (Singapore)	Audio components
PT Foster Electric (Japan)	Audio speakers
PT Fujitec Batam (Japan)	Elevators
PT Galaxy Batarn (Australia-Singapore)	PCB and CD ROM drive assembly
PT Giken Precision (Japan)	Tape recorders
PT Global Yef (Germany)	Cartons and corrugated boxes
PT Hao Yeh Plastics (Singapore)	Fabrics
PT Heng Huat (Singapore)	Plastic packaging
PT Hong Foong (Singapore)	Plastic injection moulding
PT Japan Medical Supply (Japan)	Medical devices
PT Japan Servo (Japan)	Ice machines
PT JST Batarn (Japan)	Connectors
PT Kummagaya Precision (Japan)	DC motors
PT Kyotronics (Indonesia/Malaysia)	Speakers
PT Leo Sakata (Singapore)	Plastic injection moulding
PT Natsteel (Singapore)	Computer peripherals
PT Nissin Kogyo (Japan)	TV picture tubes
PT Noble Batam (Japan)	Resistors
PT PFU (Singapore)	PCB assemblies
PT Philips (Holland)	TV remotes
PT Polestar (Singapore)	Plastic injection moulding
PT Quantum Peripheral (US)	Disk drives
PT Rubycon (Japan)	Capacitors
PT Sanipak (Japan)	Plastic bags
PT Sansyu (Japan)	Metal presses

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PT Sanyo (Japan)	Batteries
PT Schneider (France)	Electric switches
PT Seagate (US)	PCB repairs
PT Sumitomo Electric (Japan)	LED assemblies
PT Shimano (Japan)	Electronic components
PT Sincom (Japan)	Motor coils
PT Singamip (Singapore)	PCB assembly
PT Singatronics (Singapore)	Car audio, VCRs
PT Sinoca (Taiwan)	Cordless phones
PT Sumitomo Wiring (Japan)	Car wiring
PT Surya (Singapore)	PCB assembly
PT Takarnori (Japan) .	Metal stamps
PT Teac Indonesia (Japan)	Disk drives
PT Tec Indonesia (Japan)	Printer parts
PT Teck Wah Press (Singapore)	Printing
PT Techplas (Singapore)	Plastic injection
PT Thomson Television (France)	TV components
PT Top Foam (Singapore)	Foam packaging
PT Uwatee (Switzerland)	Diving equipment
PT Varta Batteries (Germany)	Batteries
PT Wireforms (Singapore)	Spring wires
PT Yeakin Plastics (Singapore)	Plastic injection

Japanese Companies, product, start date, and staff levels at Batamindo Industrial Park, October 1994.[246]

Alteco Chemical	Packaging	June 1995	100
Asahi Electronics	Consumer Electronics	July 1994	349
	Plastics	June 1995	100
Asia Matsushita	Batteries	Nov 1992	194
AVX/Kyocera	Phone parts	Dec 1991	713
EX	Jack sockets	June 1991	431
Foster Electric	Audio parts	Mar 1991	808
Fujitec	Elevators	Aug 1992	322
Giken Sakata	Tape players	July 1991	1050
Japan Medical Supply	Disposable Devices	June 1994	108
Japan Servo Motor	Stepping motor, icemaker	Jan 1994	391

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Wilkinson, 17-8, 45, 49-51, 66; Erik Paul, "Japan in Southeast Asia: a geopolitical perspective," *Journal of Asia Pacific Economy* 1/3 (1996), 392-398; Carlos Primo Braga and Geoffrey Bannister, "East Asian investment and trade," *Transnational Corporations*, 3/1 (February 1994), 102-29.

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Japan Solderless	Connectors	July 1994	86
Kumagaya	DC motor	Nov 1992	616
Matsushita Electronics	Speakers	June 1995	2000
Neat Company	Plastic moulds	June 1995	35
Nisshin Kogyo	Electric gun	Feb 1995	150
Rubycon	Capacitors	July 1993	111
Sanipak	Plastic bags	Sept 1991	119
Sanyo	Batteries	Apr 1992	391
Seiko Epson	Watch parts	June 1991	523
Shimano	Bike parts	July 1991	2304
Shintom	VCRs	Aug 1991	2075
Singapore Oil Seal	Oil Seal	March 1993	366
Sumitomo Wiring	Gold/lead wires	Jan 1995	633
Takamori Singapore	Metal stamps	June 1994	40
TEAC	FDDs	June 1994	695
TEC	Printer heads	July 1992	321
TTK	Resistors	June 1994	103

Selected Companies on Batam Island, June 1997 (N=254)[247]

Types of Business:

Electronic parts	Tourism	Ship repair
Machine parts	Plastics	Rubber products
Car parts	Chemicals	Drilling equipment
Shoes	Jewellry	Printing

Firm Nationality:

US	18	Singapore	114
UK	9	Japan	32
Korea	9	Netherlands	18
Sweden	5	China	4
Hong Kong	12	Malaysia	9
Australia	3	France	9
Germany	5	Thailand	3
Panama	1	New Zealand	2
Bahama	2		

[247] Batam Industrial Development Authority, *Baralang Development Data- June 1997*, (Kuala Lumpur: BIDA, 1997), 40-45.

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