

### 3. GLOBALIZATION PROCESSES AND THEIR IMPACT ON THE STRUCTURE OF THE TEL AVIV METROPOLITAN AREA

#### 3.1 INTRODUCTION

The chapter deals with processes of change in the functional structure of the Tel Aviv Metropolitan Area (TAMA) in the wake of economic globalization processes of the 1980s and 1990s. Of all the components making up the spatial organization of the TAMA, the chapter focuses on the development of two Central Business Districts (CBD) in metropolitan Tel Aviv: the traditional central city business arena and a new emerging center. Rather than heralding the formation of a polycentric urban structure, the new Tel Aviv CBD represents a real-estate led response at generating a new center of gravity for economic activity in Tel Aviv. The new center therefore competes vigorously with the established center. A further unique feature of the developing metropolitan structure is the *ex nihilo* nature of the new development. Instead of following the well-known pattern of incremental CBD expansion via new building at the margins of the established center, the new Tel Aviv business district represents an attempt at re-directing growth to a new location altogether.

Traditionally, the Tel Aviv CBD developed in the southern area of Tel Aviv in the location of the original site of the first neighborhood of the city of Tel Aviv, the Ahuzat Bayit quarter established in 1909. It grew consistently and systematically to become the managerial and financial center of the metropolitan area and in many instances served as the nerve-center of the entire Israeli economy, a role which it still fulfills today. Over the last decade or two however, the growth of the CBD stabilized and its areal extent changed only slightly.

Challenging the established CBD, a secondary center emerged in an area that was sparsely occupied by industrial workshops, garages and a municipal swimming pool. In terms of jurisdictional responsibilities the new center is located outside the Tel Aviv city limits and within the neighboring municipal jurisdiction of the city of Ramat Gan. Its most significant locational advantage is its proximity to the major highway of the metropolitan area (Netivei Ayalon – Highway No. 2), which is the backbone of the transportation system for the entire region (Figure 3.1). This new CBD has emerged in direct proximity to the Diamond Exchange (Bourse) which is the control center of the entire diamond industry in Israel. All import and export flows of diamonds and other precious stones are transacted via the Ramat Gan location. The Diamond Exchange is located about three kilometers to the north-east

of the traditional CBD and has become the focal point for the development of the alternative CBD attracting much of the high-rise office development in the metropolitan area of Tel Aviv. While the initial buildings near Diamond Exchange were of medium height (15 to 30 stories), later construction built in the 1990s rose to heights of 50 to 60 floors. At present, the area of the new CBD is developing outwards in a north-east direction as a collection of post-modern, high-rise office buildings. While the new center does still not match the old CBD in terms of total floor space and number of employees, it nevertheless has accumulated a critical mass of office, research and design space serving some of Israel's leading firms in high-tech and the producer services sector.

This chapter analyzes whether there are significant differences in terms of composition of the economic sectors between the two CBDs and tests the hypothesis that the new CBD is strongly related to economic globalization processes, which occurred in Israel during the 1980s and 1990s. Two different but inter-related aspects of Tel Aviv's functional structure are considered in the analysis that follows. The first deals with the emergence of a new CBD alongside an established center as a response to the needs of a metropolitan economy undergoing processes of globalization. The second outlines the emergence of a new socio-spatial residential structure which is a direct result of the growing number of foreign workers occupying the lowest level neighborhoods in Tel Aviv. A highly segregated micro-geography has emerged as a further urban response to the challenges of globalization and a distinct enclave of foreign workers of significant size and particular way of life has been formed.

### 3.2 THE TWO CBDS OF THE TEL AVIV METROPOLITAN AREA

In order to highlight the role of governance structure affecting functional structure in metropolitan Tel Aviv, we first broadly sketch the jurisdictional limits of the TAMA and the role of the planning authorities that serve this area. We then highlight the different tax regimes operating across the different jurisdictions that comprise the metropolitan region. In purely administrative terms, the metropolitan area is composed of three territorial units (defined by the Israel Central Bureau of Statistics). These are the Tel Aviv District and the Central District and the smaller Ashdod natural area at the southern border of the Central District (Figure 3.1). The population of the TAMA was 2.65 million (2001), which comprised 42 percent of Israel's total population (CBS, 2001). The TAMA has grown around the historical core of the city of Tel Aviv-Yafo over the past fifty years to comprise at present more than 25 towns, 33 local authorities, and 13 regional councils, which include 198 villages. Tel Aviv is the central city of the metropolitan area. It is surrounded by rings of built-up area of descending density and declining intensity of commuting streams to the metropolitan core - the city of Tel Aviv.

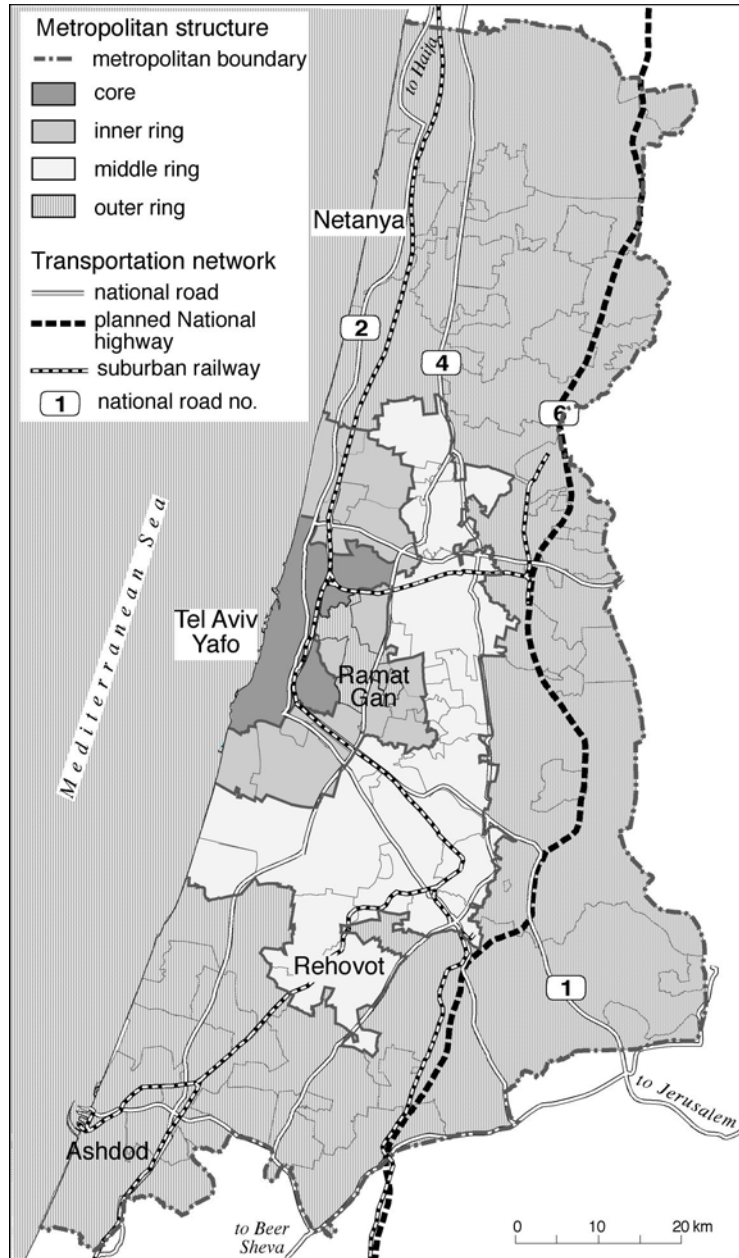


Figure 3.1 Tel Aviv-Yafo metropolitan area: basic structure and main transportation network

While the metropolitan area roughly comprises a functional economic unit and a composite spatial labor market, it is highly segmented politically. No metropolitan governance structure operates and at present, the TAMA exists as a geographical-administrative entity defined for the purpose of statistical analysis. There are however several metropolitan-wide public organizations with sectoral responsibility for the provision of public services. These are single-task organizations comprising of ad-hoc groupings of jurisdictions within the metropolitan area. The geographical extent of these organizations varies by service provided and there is no spatial correspondence of several of these organizations. Thus there is little attempt at creating organizational coordination on a metropolitan-wide basis.

The land-use pattern of the metropolitan area is partially fashioned by a planning system that prepares master plans at the district level. As the metropolitan area combines two districts, its development is thus influenced by two different spatial plans. Over the 1990s a master plan was formulated and approved for the Central District (District Master Plan 3 - DMP3) and a new master plan has recently been completed for the Tel Aviv District (DMP5) and is going through the various stages of approval at present. According to Israeli planning law, the district master plan provides the major outlines for the future development of the region. Detailed planning is the responsibility of each city, local authority, and regional council. The district planning authority is charged with the fine-tuning and spatial coordination of individual local plans. Major transportation networks are planned and designed by the Ministry of Transportation and they are incorporated into the district master plans.

Despite the seeming bureaucratic control exerted by the statutory planning system, a competing source of initiative and influence on the form of metropolitan development comes from the commercial and industrial real estate market. Municipalities constantly pressurize the planning system to ensure adequate provision of land for real estate development and especially commercial, office and industrial premises. As non-residential property tax provides a major source of independent revenue for local authorities, it is not surprising that metropolitan development represents the outcome of the competing pressures exerted by property-led growth on the one hand and planning restraints on the other. Commercial and office real estate projects are often perceived by local authorities as 'cash cows'. Allocating land for this kind of development yields revenues over four times the value of the urban services required to service these projects, facilitates intensive use of the land allocated to high-rise towers, and imposes relatively limited environmental problems.

This combination of a regulative planning system and local tax structure was expected to provide an answer for the huge demand for commercial floor space which occurred in the Tel Aviv metropolitan area from the mid-1980s until the year 2000. This unprecedented demand for commercial floor space was strongly affected by two processes of economic globalization. The first was the establishment of a very large number of new firms in knowledge-based sectors (see Chapter 6). Most of these new firms searched for accommodation in office-type buildings. The more advanced technologically they were, the more they looked for 'smart' buildings offering the most modern facilities which were unavailable in office buildings prior

the 1980s. These particular demands for 'smart' buildings channeled the locational search to newly built high-rise office buildings, which were not in abundance in Tel Aviv, especially in the old CBD. The agglomeration economies of these new firms required that they be located in complexes comprising several new buildings to allow for a threshold number of firms to operate in close spatial proximity. The old CBD area of Tel Aviv could not provide the ready supply of land necessary for the development of large office tower complexes.

While the old CBD of Tel Aviv has undergone a slow process of renewal and renovation with older and smaller buildings replaced by office towers, there has not been a sufficient response to meet the demand for office property generated by the globalization processes affecting the Tel Aviv economy. Furthermore, this response is limited in scope because of the specific historical geography of the area and the consequent planning policy towards its renovation. The old CBD is located on the site of the first neighborhood of modern Tel Aviv constructed at the beginning of the twentieth century. The area includes buildings of historical and architectural significance thereby limiting its potential for commercial development. The Tel Aviv-Yafo Municipality has enacted a strict policy of historical preservation, which means that many old buildings are protected and cannot be demolished or radically changed. Large scale development of the old CBD in order to meet the needs of a modern property market has therefore not been possible. For example, planning permission for a new office tower on the Rothschild Boulevard (the main axis of the traditional CBD) was made conditional on the replanting of one of the historical buildings from its original site to a nearby site only twenty meters away. The direct outcome for developers is a slow process of obtaining planning permits and an increase in total development costs on top of the very high cost of land in the old CBD. Another problem in the development process of the old CBD is small lot size. This is a legacy of an antiquated system of land parcelation. Modern development requires consolidation of very small land parcels as a precondition for commercial and office projects. In other cases building facades have been listed for preservation necessitating the intact freezing of the exterior structure while tearing down the buildings behind the preserved facade. Thus, any redevelopment in the old CBD incurred greater costs and proceeded at a slower pace than similar projects at alternative locations in different parts of the Tel Aviv or even outside its limits. These limitations meant that only offices able to pay the highest rents would be likely to occupy the any new office space, to be built in the old CBD. In practice, this has resulted in the concentration of firms in the financial and business service sector such as headquarters of banks and insurance companies, prestigious legal offices and international accounting firms in the old CBD (Charney, 1997).

The second globalization-related outcome has been the tremendous growth in demand for office space created by the dramatic increase in the producer services sector (see Chapter 8). The number of employees in the finance and business services in Israel almost doubled in the decade between 1988-1998 from 148,000 to 293,000, out of the latter 23.5 percent were concentrated in the city of Tel Aviv (CBS, 2000). The rapid expansion of producer services of all sorts could not be accommodated within the existing CBD of Tel Aviv. The problem was accentuated by the fact that the large firms in the various branches of producer services looked

for offices in buildings, which carried with them an aura of prestige, affluence, and modernity. Very few buildings within the old CBD could match these requirements despite attempts to up-grade existing buildings. This new floor space created could not accommodate the exploding demand of the large producer services firms.

Thus in the mid 1980s the stage was set for a major expansion of office space either in Tel Aviv or in one of the municipalities within its vicinity. This opportunity was seized by the Municipality of Ramat Gan, which is Tel Aviv's neighbor to the east. Applying well-known measures in interurban competition, Ramat Gan offered attractive incentives for the development of office towers. The first was a waiver on height limits for office blocks allowing for intense exploitation of floor space. It took the Tel Aviv-Yafo Municipality more than ten years to follow up with the same relaxation of height limits. Israeli planning law allows for each municipality to enact its own regulations and by-laws, independent of those in neighboring municipalities. The District Planning Commission approved of Ramat Gan's planning policy cognizant of the growing demand for new floor space, which could not be met in Tel Aviv because of its planning restrictions. The second measure was reduced property taxes for non-residential land uses. For big firms utilizing large areas of floor space this was a substantial incentive. Together these two measures combined to attract land development and large-scale office and commercial property construction. A collection of over 20 high-rise buildings rapidly emerged at the western-most tip of Ramat Gan by the end of the 1990s. This 'top location' was created outside the boundaries of Tel Aviv over a relatively short period, featuring all the characteristics of a CBD in terms of the intensity of development and type of firms occupying the new office development (Kipnis, 1998).

Over the period 1995-2000 the Israeli economy benefited from a continuous stream of foreign investment aimed to a great extent at local high-tech industry and a multitude of start-up companies established at that time (Chapter 4). Aware of the demand for large scale property development to serve high-tech firms part of the inflow of foreign investment was channeled into land development. Bank of Israel figures point to \$183 million of foreign capital in land development in 1996 in \$191 million in 1998, \$221million in 1999 and \$192 million in 2001 (Bank of Israel, 2001). The geographical destination of this investment is not available but it can be assumed with a high degree of certainty that the majority was directed to the Tel Aviv metropolitan area. No surprisingly, most of the office towers in the new CBD were joint ventures between foreign and Israeli entrepreneurs. The free flow of capital, a major characteristic of the global economy, therefore had a direct impact on the changing functional structure of the metropolitan area.

In addition to the land development incentives, the rapid and unplanned development of a second CBD in Tel Aviv was facilitated by changing patterns of accessibility in the metropolitan region. Over a period of almost twenty years a major highway was constructed in the center of the built-up area of the metropolitan region aligned in a north-south direction, starting at the southern entrance into Tel Aviv and terminating outside the northern boundary of the city (Figure 3.2). This highway (Highway No. 2, called 'Netivei Ayalon') created an efficient and high-

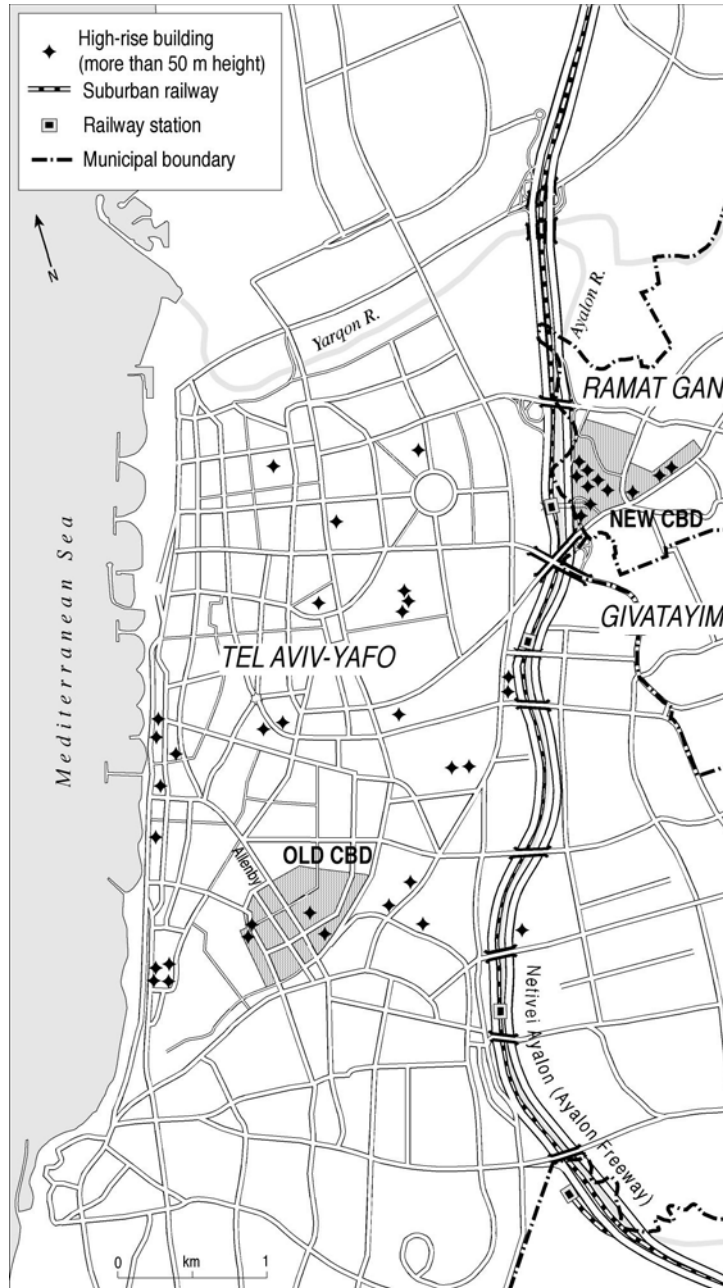


Figure 3.2 The old and new central business district in Tel Aviv-Yafo and Ramat Gan, 2000

speed transportation corridor and rapidly developed as the backbone for the car transportation network. All areas adjacent to the highway became accessible for passengers and goods arriving from all parts of the metropolitan region and even beyond it. Fortuitously, the new CBD was adjacent to Highway 2 and therefore could reap the benefits of the rapid accessibility to the highway. Two exits from the highway funnel vehicles directly toward the new CBD. The proximity of the CBD to the northern rail and bus station located within the municipal boundary of Tel Aviv but adjacent the concentration of office towers in Ramat Gan, further enhances CBD accessibility. In contrast, the old CBD does not enjoy the benefits of Highway 2 and a lack of lateral connections in an east-west direction has kept the old CBD in relative isolation from any major transportation networks. This significant difference in accessibility could also account for the different composition of firms in the two centers.

Recently a further component has been added to the transportation system with the initial construction of the first lines of the TAMA commuter rail system known as the 'suburban train'. This is scheduled to run from the city of Rehovot at the southern edge of the metropolitan area to the city of Netanya at the northern end. The commuter train runs parallel to Highway 2, traversing the metropolitan region from north to south. As this new component is not yet fully operational it is too early to evidence a rise in the volume of passengers to Tel Aviv in any significant manner. Nevertheless, anecdotal evidence suggests that it already is having an effect in increasing the Tel Aviv area labor-shed with a large number of commuters from Rehovot, Netanya, and even Zichron Yaakov to the north using the system. Eventually with extensions added in all directions, this mass transit system will give a tremendous locational advantage to the new CBD and to development adjacent to Highway 2.

The emergence of a new CBD located in Ramat Gan and competing with the old CBD in Tel Aviv has caused a major change in the functional structure of the metropolitan area. It is assumed that the establishment and the growth of the new CBD are an outcome of the new demands for floor space spurred on by the economic globalization of the metropolitan economy. We hypothesize therefore that the composition of the new CBD, which has grown in response to globalization processes, will be rather different to that of the traditional business center. The following section attempts to establish this proposition.

### 3.3 EXAMINING THE CONNECTION BETWEEN LOCATION AND GLOBALIZATION IN THE OLD AND NEW CBD AREAS OF TEL AVIV

#### *3.3.1 Survey and Method*

The objective of this section is to analyze the characteristics of the firms located in both the new and old CBD's of Tel Aviv with a view to ascertaining the relationship between their locational choice and globalization processes. The causality of this relationship is generally considered reciprocal: globalization determines location and the characteristics of location further impact on the process of globalization (Short



and Kim, 1999). The case of business services however is conditioned by rather different factors to those governing the globalization of other highly agglomerative activities, such as high tech production (see Chapter 6). Business service firms tend to cluster in very specific locations within the central city (downtowns or CBD's). Central business areas tend to exist alongside high quality commercial premises at density levels unknown even at the most successful high tech production centers. In the classic monocentric conception of urban structure, CBD location is favored by those activities whose production functions most effectively allow the substitution of capital and labor for land (Mills and Hamilton, 1994). The result of competitive bidding amongst different activities is a rent gradient that falls off sharply with distance from downtown. Business services are amongst the most competitive of activities for CBD locations due to their ability to effectively operate in high-rise, high-density environments. The result is the symbiotic agglomeration of corporate offices, financial services, business and professional services in office-based facilities in relatively small areas. Constant pressure on CBD areas has caused their physical expansion, relocation and the development of subsidiary CBD's throughout the 1990's, such that the idea of a 'walking downtown' has increasingly become eroded (Guiliano and Small, 1991).

The localization economies to be gained from business service clustering lie in the externalities that proximity affords (labor pooling, information flows etc, specialized services etc). In a growing CBD, the marginal gains from these externalities must outweigh the marginal costs of accessibility and congestion in the CBD area.

Sassen (1991) has stressed the demand for knowledge-rich environments as the primordial factor governing the formation of intensive business service clusters in select global locations. Global liberalization and merger activity, the need for intensive interaction with clients and advances in IT have all made for global business service firms with voracious needs for information (see chapter 8). In addition, many of the factors driving the agglomeration of economic activity (Quigley, 1998) are pertinent to the case of business services.

While CBD clustering may not offer advantages in terms of scale economies in production and the ability to attain large plant size, it does allow those located in downtowns to realize economies of scale in consumption promoting a large range and full access to a whole host of public goods available in the CBD. Another advantage of central city clustering relates to sharing inputs. The evidence of shared inputs in production in the business services sector is meager (Bogart, 1998). However, on the consumption side much of the 'consumer city' thesis is predicated on the joint provision of amenity-based inputs (such as theaters, restaurants and the like) that serve a variety of producers in the CBD (Glaeser, Kolko and Saiz, 2001). Transactions costs savings from downtown agglomeration is realized both on the production and consumption sides. In the case of the former it is expressed through labor market pooling. In the case of the latter it is evidenced via the joint provision of shopping and commercial facilities within business districts. Finally, the 'law of large numbers' (urbanization economies) also provides a further advantage for CBD clustering. This results in 'statistical economies' in production and consumption. The sheer volume and magnitude of business activity, visitors and people in the

CBD serves to mitigate the effects of fluctuations in the economy. Thus while an individual producer may be feeling the effects of a cyclical downturn others will not and the overall effect on the CBD economy is one of statistical stability.

In the present context, an interesting question is whether the clear spatial tendency towards CBD clustering is also related to globalization. Do the more 'global' firms produce a particular geography? What are the particular marginal gains from clustering that accrue in the case of globalizing firms? Are they any different from the standard sources of localization economies?

In considering the case of Tel Aviv and its distinctive urban structure comprised of a new and old CBD, a further list of issues emerge. For firms that decide to relocate to the new CBD from elsewhere, a definite gain at the margin must be occurring. The question arises as to whether this gain is related to globalization tendencies of the firm. Furthermore, an emerging node location such as Tel Aviv is basically a small open economy trading with other economies worldwide. This poses the question as to the advantage to be gained from trading from a particular location such as the new CBD. In the context of Tel Aviv and its relocated CBD we are also interested in examining the extent to which firms in the new CBD of Tel Aviv are more global than firms in the old CBD. Has relocation enhanced globalization? While we will not be able to address all these questions, examining the interface between globalization and locational choice forces us to confront them.

The spatial pattern of two specific business service sectors within metropolitan Tel Aviv (accountancy and advertising), are dealt with later (see Chapter 8). At this juncture we are more interested in the micro-geography of the CBD and specifically, the connection between locational patterns and globalization. The explicit hypotheses underlying this examination suggest that the globalization tendencies of business service firms are conditioned by firm attributes (age, size, sector, organizational status), agglomeration economy factors (with firms tending to seek out the localization economies of a particular place) and the entrenching role of micro-location in this process.

To examine these issues, we present the result of a comprehensive survey of firms in both the old and new CBD areas of Tel Aviv. The same survey instrument was administered to over 330 business service firms in the new CBD area and 220 in the old CBD area. While this does not represent a full census of all businesses operating in the two areas, and to some extent is a self-selecting sample, it still does account for some 60 percent of businesses operating in the 'core' sections of the two CBD areas. The composition of the businesses surveyed in the two areas is rather different. In the new CBD roughly one quarter of firms are law firms and a further quarter offer computer and communications services. The rest are real estate, financial services and accounting firms. In the old CBD, 28 percent are law firms, 18 percent offer financial services and another 25 percent are either insurance firms or accounting offices.

In order to determine the level of globalization in the business, firms were asked whether they had a major client abroad. Sixty two percent of the firms in the new CBD and 35 percent in the old, answered positively to this question. This binary variable served as the dependent variable in the statistical testing that follows. Using a linear logit model, we attempt to estimate the probability of a business service firm

having global connections, as a function of a string of firm attributes. This relationship is estimated three times: first for the firms in the new CBD (model 1), then for the firms in the old CBD (model 2) and finally for all firms with firm location (new/old CBD) acting as a predictor variable (model 3). Data limitations prevent us from using the identical model in each case but key variables do feature in each of the three estimations.

The variables used in the analysis below and their hypothesized relationships, are as follows:

*AGE*: this is a continuous variable that captures business experience. We expect this to be positively related to globalization with experience giving firms an edge in forging links with firms abroad.

*FLOORSPACE*: this is a continuous variable that proxies for firm size. The direction of this relationship is indeterminate: larger firms could on the one hand be more oriented to the local market and on the other hand, size could be correlated with age and impact on globalization as a result of this connection.

*INDEPENDENT FIRM*: this categorical variable juxtaposes all independent firms with all other forms of organizational structure (branch offices, subsidiaries etc). We anticipate that independent firms will have more freedom in pursuing clients abroad than firms that are part of larger business structure.

*RE-LOCATION TO CBD*: this binary variable attempts to capture the agglomeration economies associated with a CBD location. All re-locators to the new CBD from another location are compared with non-mover firms who were either established in the CBD, never moved in their business history, or moved within the CBD. We expect that those firms actively looking for the benefits of CBD localization economies, to also be more active in the area of global linkages.

*NEW CBD LOCATION*: this categorical variable (0,1) identifies firm location as either in the new or old CBD. In line with the hypothesis offered above, we anticipate that firms in the new CBD will tend to have more global connections than firms in the old CBD.

*SECTOR*: this identifies firms as either computer or communications firms or something else, which incorporates, law, real estate insurance and accounting firms. The direction of this relationship is hard to specify. On the one hand, those law and accounting firms that choose a CBD location are likely to have more global business relations than other similar business service firms. On the other hand, the reality of the computer and communications sector in Israel is that it is one of the main drivers behind the internationalization of business in Israel.

In the estimations that follow, not all variables appear in each model due to problems of either data paucity or multi-collinearity between the explanatory variables. In addition we are not looking for the most parsimonious model. Rather we are more interested in the direction and strength of the relationship between each of the independent variables and the tendency to have a major client abroad.

### 3.3.2 Results

Regression results are reported for each of the three models (Table 3.1). As a probability estimation method is used, the regression coefficients are not readily interpretable. In the results reported below, significant coefficients are transformed into  $\Delta P$  values (see Note 1, Chapter 4 for full derivation). These specify the probability change at the mean for a unit change in the independent variable. As many of the latter are categorical variables, the  $\Delta P$ 's indicate the effect of a category move in  $x$  on the mean probability of  $y$ .

From the first panel in Table 3.1 we can see that older firms are more likely to have global clients, although the same cannot be said for larger firms (measured in terms of floorspace). The most significant relationship is that of firm organizational status. The probability of global links rises the more the firm is independent. A categorical change in the independent variable will elicit a probability rise of 3 percent in the mean value of the dependent variable. Our hypothesis about the agglomeration economy effect of locating the in the CBD (as captured in the re-locators) is not upheld. While the direction of the relationship is as predicted, the coefficient is not significant. Sectoral affiliation has some effect on the likelihood of having a major client abroad with more law, real estate and accounting firms and more likely than computer and communications firms. The latter would seem to be service companies serving the domestic market and not the classic profile of the Israeli export-oriented, high tech firm (see Chapter 6).

The model relating to the tendency to globalize amongst business service firms in the old CBD area, suffers from less observations and less variables that are statistically significant (Table 3.1, model 2). While the signs on the age and ownership variables match our expectations, the coefficients themselves are not significant. Firm organization is the only variable that appears as having any significant effect in what is otherwise a weak model. Thus with respect to the firms in the old CBD, the only significant factor explaining the tendency to have a major client abroad is firm organizational independence. This finding does not lend itself to any intuitive explanation. The main overall finding is that the tendency to globalize is weaker amongst firms located in the old CBD, although a convincing causal explanation as to why this is so, is not so obvious. There is also no real indication in this model of any agglomeration benefits from location in the old CBD. This does not mean that they do not exist. Rental and business density levels would seem to indicate that at one time, firms were prepared to pay a premium for some perceived advantage of being in the old CBD. We simply have not been able to capture this in our survey and the advent of the new CBD has in all likelihood, served to erode this advantage.

Our third model, attempts to establish the link between intra-metropolitan location and globalization (Table 3.1, model 3). Here we introduce location (new/old CBD) as an explicit determinant. This factor is not significantly correlated with the agglomeration economy effect (as captured by re-location) and thus both enter the model independently. Along with firm organizational status, these two variables are significant and with signs in the direction expected. Firms relocating to the new

Table 3.1 Determinants of globalization: Tel Aviv CBD firms

Independent Variables	Dependent Variable: Existence of Major Client Abroad		
	Model 1	Model 2	Model 3
Constant	-3.012** (1.124) <sup>2</sup>	-2.735** (.773) <sup>2</sup>	-1.482** (.396) <sup>2</sup>
AGE (years)	.023* (.013) [.0002] <sup>3</sup>	.691 (.445)	.007 (.009)
INDEPENDENT FIRM (OTHER: SUBSIDIARY, BRANCH OFFICE ETC.) <sup>1</sup>	1.478** (.457) [.030]	1.492* (.804) [.031] <sup>3</sup>	.813** (.293) [.051] <sup>3</sup>
RE-LOCATION TO CBD (OTHER: LOCAL ETC.) <sup>1</sup>	.020 (.437) [.036]		1.040** (.290) [.047]
FLOORSPACE (m <sup>2</sup> )	-.0007 (.0004)		
SECTOR: COMPUTERS and COMMUNICATIONS (OTHER SECTORS) <sup>1</sup>	-.867* (.464) [.027]		
ISRAELI OWNERSHIP (FOREIGN) <sup>1</sup>		-.825 (.464)	
NEW CBD LOCATION (OLD) <sup>1</sup>			.572* (.315) [.038]
n	262	173	472
Mean, Dependent Variable	.62	.35	.48
-2 x log likelihood	175.8	135.1	352.1
$\chi^2$ values for model / d.f.	18.6/5**	7.9/4*	22.6/4**
Percentage correctly predicted	88.2	85.5	86.4

\* logit coefficient significant at p<.10 level

\*\* logit coefficient significant at p<.005 level

1. Dummy Variable; reference group in parenthesis

2. Standard Error in parenthesis.

3.  $\Delta P_1$  probability change estimated at mean, for unit change in independent variable.

CBD from elsewhere are more likely to have global connections implying some relationship between the agglomeration economy effect and globalization. Relocating to the new CBD from any alternative location, increases the probability of having global clients by nearly 5 percent at the mean. In addition, all other things equal, business service firms in the new CBD are more likely to have global clients than others. A categorical change from the old CBD to the new, increases the mean likelihood of global links by close to 4 percent.

This finding may serve to hint at the self-entrenching process of globalization based on location in the new CBD. Once a firm decides on locating in the new CBD, this increases the probability that it will develop connections with global clients. Thus, we can use these results to suggest that firms looking for the agglomeration advantages of the CBD will tend to be more globally oriented. Once they locate in the new CBD, this tendency may strengthen. This hints at the 'increasing returns' explanation of urban agglomeration (Krugman, 1991).

Finally, as noted earlier, the vexing question of causality in the relationship between globalization and intra-metropolitan location, still remains. Does location in the new CBD make firms more global or do the more global firms seek out the new CBD? The findings presented have assumed a uni-causal direction with location in the new CBD reinforcing the tendency to globalize. However, there could be a process of self-selection at work, whereby the globalization tendency of the firm is an attribute that explains location in the new CBD.

### 3.4 RESTRUCTURING THE RESIDENTIAL PATTERN OF THE CITY OF TEL AVIV

Most developed countries encountered the social-geographical phenomenon of foreign workers migrating to their large cities in order to provide cheap labor, predominantly in those sectors in which local labor is not willing to participate (Sassen, 1999). Over the period 1967-1990 the demand for foreign labor in Israel was met by Palestinian workers who commuted daily in large numbers from the West Bank and Gaza to parts of the country and especially to the Tel Aviv metropolitan area. At the beginning of the 1990s the geographical pattern of Palestinian commuting was radically transformed. Because of rising political tensions resulting from the first *Intifada* (Palestinian up-rising), only a small number of Palestinian workers were allowed to work in Israel. Over a very short period of time they were replaced by foreign workers arriving to Israel from various parts of the world. The main countries of origin were: Romania, the Philippines, Thailand, and certain Central American countries. To illustrate the fast growth in the number of foreign workers, we can note that in 1993 the number of foreign workers in Israel was 16,000. By 1995 this figure was 60,000 (Bar Tzuri, 1996) and a year later it was 110,000. In 1997 their number diminished to 90,000. These figures relate to foreign workers who entered the country legally. In parallel, a secondary market of illegal workers developed and their number was estimated in 1997 to be 150,000 (more than the legal workers at that time). Since then, the number of foreign workers, legal and illegal, seems to have stabilized at about 250,000 accounting for

about 10 percent of the Israeli labor force. Foreign workers live in a highly concentrated and segregated pattern. With the exception of the Thai workers who specialize in agriculture, all the others are located within the cities of Israel and adjacent to major construction projects.

Of the large number of foreign workers in the Israeli labor market, about 60,000-70,000 reside and work in the city of Tel Aviv-Yafo. At present they comprise 15 percent of the total population of the city. This high concentration can be related directly to the globalization processes that shaped the Tel Aviv economy and its spatial structure during the 1990s. It is instructive to trace the relationship between globalization and residential restructuring in Tel Aviv.

The first source of extensive demand for foreign workers is the growing affluence of the upper middle class. They occupy the expensive residential districts of central and northern Tel Aviv. Their ability to accumulate capital is a direct outcome of rising income levels in the wake of the economic boom of the 1990s. Demographic change and the 'graying' of Tel Aviv has created demand for personal health care workers for an affluent and aging population that can afford it. In addition, the rising share of women in the Israeli labor force has created demand for household help. This demand has been filled, in the main, by foreign workers from the Philippines. A second source of demand has been the construction boom of the 1990s especially the high-rise office tower complexes in the two CBDs. Local labor supply has not been sufficient to meet demand for construction workers. As a result, this demand has been met by foreign workers from Romania and more recently, China. The third influence on demand has been the development of a market for workers in the area of maintenance, cleaning, and security of the numerous commercial and office buildings in the two CBDs. Foreign labor from African and Central American countries have filled this particular demand.

The large number of foreign workers in Tel Aviv has not only transformed the structure of the labor market but has also significantly changed the spatial structure of the housing market in Tel Aviv. On arrival in Tel Aviv, foreign workers invariably search for cheap accommodation as close as possible to the center of the city where most employment opportunities can be found and where public transportation is readily available allowing for easy access to most of the metropolitan area. Residential accommodation of this type is available at the edge of the CBD that borders on the poorer housing neighborhoods of south Tel Aviv.

Since its birth as a modern city, Tel Aviv has been characterized by a north-south divide that has seen upper and middle-income residential neighborhoods develop in the northern part of the city initially populated by immigrants of European origin. In contrast, the southern part of Tel Aviv has been associated with lower income housing occupied by non-professional and working-class households of South-Western and Central Asian and North African origins. This striking division was a direct outcome of the political and security tension between Jewish Tel Aviv and Arab Jaffa (Yafo), located to the south of Tel Aviv. All neighborhoods built in the southern part of Tel Aviv from the 1920s onward were considered less attractive due to their proximity to the invisible but strongly effective boundary with the city of Jaffa. These disparities perpetuated and deepened after the establishment of the State

of Israel in 1948 and the amalgamation of Tel Aviv and Yafo into one municipal jurisdiction.

From the beginning of the 1990's some of the residential neighborhoods in south Tel Aviv underwent an urban renaissance. Demand for these neighborhoods generated by two distinct populations caused a significant turn-around in the prospects for these once-decaying areas. The first significant social group to revive this area was the young urban, new middle-class, many of them related to high-tech industry and to newly expanded producer services. These young couples were looking for an area that would maximize the benefits of proximity to the amenities and cultural activities of central Tel Aviv. In particular the Neve Tzedek neighborhood southwest of the old CBD, became a magnet for those wanting to capitalize on the consumption opportunities of the central city and proximity to place of work. A once-deteriorating neighborhood was regenerated through the demand for a typically urbane lifestyle. A second distinct social group that has generated demand for south Tel Aviv residential neighborhoods is the immigrant population originating from the former USSR. Akin to the experience in other large cities, these first time arrivers tended to gravitate to the lower income southern neighborhoods, especially the Neve Shaanan and Shapira quarters. Cheap housing in these areas was nevertheless highly accessible to centers of employment. Most immigrants from the former Soviet Union looked on these areas as a stepping-stone in upward social mobility and progression in the housing market (Nachmias and Menahem, 1997).

By the mid-1990s the Neve Tzedek neighborhood was almost completely colonized by young, affluent, middle-class gentrifiers. In contrast, an opposite process of neighborhood depopulation occurred in those quarters that had served the Russian immigrants as points of entry to the Tel Aviv labor and housing markets. Over time, the migration balance of many Tel Aviv neighborhoods south of the old CBD became negative. Highest negative rates were recorded for the Neve Shaanan (-69.4 per 1,000 inhabitants in 1993 and -83.9 per 1,000 inhabitants in 1994) and the Shapira Quarter (-84.0 in 1993 and -76.9 in 1994). Thus by the mid-1990s many lower income neighborhoods of southern Tel Aviv were characterized by depopulation and very high vacancy rates.

The opportunity for accessing cheap housing in close proximity to the city center was seized by the considerable flows of foreign workers coming into Tel Aviv and whose numbers peaked in the mid 1990's. Over a period of three to four years most of the southern neighborhoods became repopulated by foreign workers, initially single males followed by households moving in at a later stage. The Neve Shaanan area became home to more than 5,000 foreign workers out of a total population of 7,200 (close to 70 percent) (Schnell, 1999). Over sixty percent of apartment buildings in this neighborhood had foreign worker occupancy rates of more than 50 percent. Neve Shaanan became known as the core area in the newly emerging micro-geography of foreign workers residential choice. The neighborhoods due south of this core experienced a similar phenomenon but to a lesser degree (Figure 3.3).



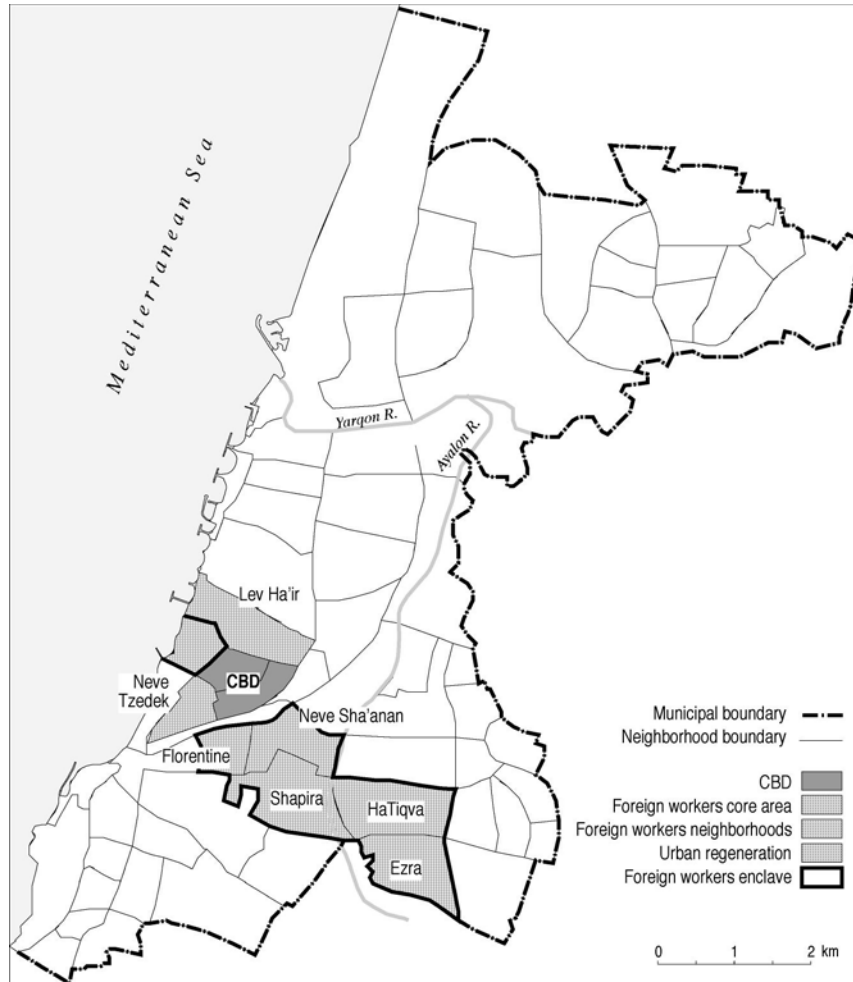


Figure 3.3 Foreign workers neighborhoods in Tel Aviv-Yafo, 1998

These foreign workers neighborhoods have recently begun to consolidate as communities. Local commercial change reflects the social change in the area: many stores and restaurants have changed hands and accommodate the tastes of the foreign workers, mainly from African countries and South-East Asian. A large number of bars, pubs, and massage parlors cater to the entertainment needs of the single, male foreign worker. Small international telephone calling centers cater to the demand for communication with countries of origin. Communal institutions have begun to take root reflected in the large number of churches of all denominations, which serve not only as places of worship but also as community centers. Over time this process can be expected to intensify fed by family reunification and new foreign

worker household formation which in turn will increase the demand for community services and institutions. While the southern Tel Aviv neighborhoods are invariably perceived as fluctuating and lacking a unifying social structure, efforts at institution building by the various foreign worker communities have contributed an element of permanence to an area traditionally characterized by transience. Thus, the urban consequences of globalization imply residential as well as economic restructuring.

Finally, it should be noted that the reverse side of the globalization coin has left its imprint on the residential structure of the affluent areas of north Tel Aviv as well. Parallel to the urban renaissance and rejuvenation in the select southern quarters of the city, the northern neighborhoods underwent a cycle of large-scale new building. These new housing developments reflected the rising standard of living across the different residential areas north of the Yarkon River. By the end of the 1990s urban restructuring was almost complete. The spatial result was the de facto emergence of the two cities of Tel Aviv - the affluent, veteran Israeli, modern northern neighborhoods juxtaposed with the poorer, highly segregated south composed of foreign workers, aging low-income Israelis and some remnants of the flows of immigrants from the former Soviet Union.

### 3.5 CONCLUSIONS

This chapter has reviewed two major processes of urban restructuring in the Tel Aviv metropolitan area. The first dealt with the emergence of a second new CBD and the development of a 'top location' outside the municipal boundaries of Tel Aviv-Yafo. This new CBD was statistically characterized by having distinct global features reflecting the rapid change the economic base of the metropolitan area in response to globalization processes. The second process was the polarization of the city of Tel Aviv's residential structure caused by the housing choices of a very large number of foreign workers engaged in community-building in the southern part of the city. In turn this is creating a significant spatial watershed between the affluent north and the deprived south of the city. Globalization processes have therefore served to accentuate existing divides at both the intra-urban and intra-metropolitan scales.

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