Growth In The Fast Lane: Land Values and Urban Growth of Istanbul*

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This is not a comprehensive study of İstanbul nor a detailled account about it. This paper is a first attempt to evaluate preliminary findings of an ongoing research project on the land values and urban growth in the case of İstanbul. This is a brief approach to investigate rapid urban growth of İstanbul within the frame of land values or in other words, interaction and relation between land values and urban growth of İstanbul. Property tax values are used as the principal parameter to investigate the problematic of urban growth and land values. A descriptive manner is adopted due to limitations for the paper.

1. Scope And Limits

İstanbul is a metropolitan city and area run by a metropolitan municipality. The İstanbul metropolitan area is divided into 39 districts then 782 neighbourhoods and 152 villages after new legistation in 2008 which became effective following local elections of 2009. Each of which is an administrative body in local hierarchy. This was 32 districts and 771 neighbourhoods before 2009.

In this paper land value and of seven districts from different parts of the metropolitan area are selected to analyze land value changes. These seven districts are as follows: Avcılar, Bakırköy, Şişli, Sarıyer and Zeytinburnu on European side and Kadıköy and Üsküdar on Asian side.

Datas related to land values of last twenty years are collected with 10 years of array as 1990-2000-2010. Property tax values are used in this work to determine land values. In Turkey, property tax values are determined on a yearly basis as a base unit of “m²” of empty land. This base value is then multiplied with different coefficients according to types, use, and some other qualitative aspects of buildings (if exists) to find an accumulative sum of the tax of a property.

However property tax values do not reflect the real market value for any kind of real estate. In large metropolitan areas where real estate and land markets are highly vivid particularly like İstanbul, the difference between market value and tax value for any given real estate or land may attein 3 to 4 times. Anyway, property tax values have some advantages for any research on this subject. First of all they provide reliable basis since they have a yearly regular continuity. In Turkey, property tax values are determined every year by special expert committees of municipalities in every city or district according to a base value and rates predetermined by the Ministry of Finance and according to locations on the basis of streets in urban areas and of cadastral land plots on unbuilt lands.

Second, property tax values whether do not directly represent real market values they reflect the difference between them from time to time and place to place particularly according to locations and external features such as speculative trends or values and also inflation. This means, difference between property tax values of two given real estates if not represent real market value, they reflect the difference of values according to their locations and speculative trends for each of them. Therefore, property tax values are highly reliable to follow land value changes in time and place.

2. Theoretical Framework

Relation between urban growth and land values have always gathered interest in urban studies. Several researches proved interaction of these two parameters and how they influence each other. In classical economy land is considered as a input of production and also studied within rent concept. These theoretical approaches are generally developped for agricultural lands. Most of theories related with land values and spatial pattern of land use are based upon explanations of Riccardo and von Thünen on selection of location for agricultural land. Alonso, adapted this theoretical approach to urban land and emphasized the relation on location of housing and travel time then size of land and realtion between land use and density (Alonso, 1964).

First attempts on the relation of land use and land values and argue that land value will change as land-use changes (Chapin, 1965). However this attempts generally consider a land use change from agricultural to urban land. In the book of *"Urban Dynamics"* (1969), Forrester, proposes a model based on the interaction of human, housing and industry. According to him, interaction between existing and newly developping activities or the division of labour among them is the reason for urban growth. When a sector is enough developped and the land is built up, the system is reached its equilibrium. From then, the stagnation then degradation begin. In other words, from the growth phase, city reaches an equilibrium point, where population becomes more diverse and dominant economic activities change. And if there is a successfull renewal project in this site, system moves towards a healthy diversity of economic activities (Forrester,1969, 20-21).

Some simplified models attempted to show the interaction between turnover of land as an asset and the speed of urban spatial growth. As they underlined in a very simple model to predict land values; four components such as the value of agricultural land rent, the cost of conversion, the value of accessibility, and the value of expected future rent increases, a growth premium. And in rapidly growing cities, the growth premium may easily account for half of the average price of land and may agricultural land rent (Capozza and Helsley, 1989; 303). In their models, uncertainty affects the level of both rents and prices in the urban area. Growth affects the value of urban land and agricultural land but not the level of rents. The model suggests that land prices in two urban areas of equal size will be higher in a riskier urban area (Capozza, Helsley, 1990; 202).

The method of hedonic price is gained quite a common ground since 1970s to explain urban land values according to their distance to amenities and quality of services they benefited (Kocatürk Özcan, 2006; Wetzel, 1983). In urban planning a city's macroform is generally conceptualized as a continuous spread around like an oil stain spreading. However, in many cases, particularly through the last century discontinuous urban spread with big leaps leaving empty lands inbetween is became almost a common pattern of urban growth. Some planners argued that this empty lands will be more valuable at the future and interpreted this as an opprtunity and a factor to provide better planned and designed areas in vicinity of city center. However, discontinuous growth provides also opportunities for land spaeculation as in the case of İstanbul. Theoretical debates quoted here all contributes to a different degree to understand characteristics of the case of İstanbul in terms of urban growth and land values.

3. A Brief Introduction on the Urban Growth of İstanbul

When the Republic of Turkey was born in 1923 the capital moved to the city of Ankara. But the relocation of the capital to Ankara never reduced the importance of İstanbul. The beginning of the Republic, is an era of relative stagnation in urban growth and population increase. Following this period of stagnation during last decades, İstanbul faces the first turmoils of rapid urban growth in 1950s due to rural exodus, rapid growth of population and

urban expansion. Under the pressure of these problems Istanbul underwent a series of dramatic change. Rapid economic growth and industrialization accompanied with population increase result with mass immigration from countryside to major urban centres. Istanbul suffers the most from this phenomenon. For example, in 1945, Governor of Istanbul declares that there is only one housing unit in Istanbul for every ten persons. Yearly housing deficit reaches to some 30-40.000 units in 1953. Housing shortage in critical levels coupled with unsufficiencies in housing production for newcomers ends up with emergence of large squatter ("gecekondu") areas around the city, particularly around industrial areas.

Following the Plan of Prost adopted in 1939, urban planning scene of Istanbul during First half of 1950s is mostly marked by urban interventions and urban improvement projects limited in numbers and in content. However urgent need to renew urban infrastructure of Istanbul will result with large scale urban operations during second half of the decade. These operations resulted with introduction of a new road network which are suitable for car traffic. However, urban fabric of Istanbul suffers a lot of this operations particularly in historical areas. Historical centres and residential zones are higly touched with wild clearences. From 1960 on, a new era of total planning is introduced in Turkey. However, this new framework will contribute a few to solutions of urban problems of Turkey and Istanbul. Under the influence of spreading industrial areas and gecekondus, Istanbul continue to expand around urban areas, along major roads and Marmara shorelines and takes a shape of a linear city in through the 1960s and 1970s. Opening of Bosphorus Bridge in 1973, and Fatih Sultan Mehmet Bridge in 1988 is largely contributed to spread of the city.

Starting from the second half of the 20th century, the Asian side of Istanbul, which was originally a seaside summer resort also experienced a massive urban growth. The fact that these areas were largely empty until the 1960s also provided the opportunity for developing better infrastructure and a tidier urban planning when compared with most other residential areas in the city. But the real expansion of the Asian side came with the opening of the Asian extension of the E5 highway. Another important factor in recent growth of the Asian side of the city was immigration. Today, almost 40% of the city's population live in the Asian side.

In the last decades, numerous tall structures were built around the city to accommodate a rapid growth in population. Surrounding towns were absorbed into Istanbul as the city rapidly expanded outwards. The tallest highrise office and residential buildings are mostly located in the northern areas of the European side, and especially in the business and shopping districts of Şişli. The headquarters of Turkey's largest companies and banks are also located in this area.

Today, Istanbul continues to expand dramatically. Actual population is approximately 13 million and increases at an estimated 400,000 immigrants per year. Industry has expanded even as tourism has grown. It continues to be a city that creates its own history at the intersection where both Continents meet.

Urban transformations of İstanbul since the mid of XXth century are shaped under influence of six major factors. Spatial structure of Istanbul may be defined a dynamic system shaped under interaction of below parameters. which are namely;

a) Population increase and immigration
b) Gecekondus and illegal urbanization
c) Urban transportation
d) Real estate and land speculation
e) Big capital
f) Urban planning

4. Case Study Areas: General Characteristics

The seven districts which are selected for the case study represent different characteristics od İstanbul metropolitan area.Therefore, they may be interpreted as samples of different type of settlements, social characteristics and cultural values within metropolitan area.

Avcılar: The District of Avcılar is situated at the at the western wing of the metropolitan area. It is established only in 1992 as a separate district. Avcılar is highly touched by the earthquake of 1999 with a loss of almost 200 lives. Actually it hosts the main campus of İstanbul University and is stil one of fast growing districts of İstanbul metropolitan area. Avcılar is particularly an attracting spot for commercial uses requiring large size lands such as shopping malls, commercial centers, big showrooms etc. due to its location on one of major highways of metropolitan area

Avcılar			
Population (as of 12, 31, 2009)	**Area (km²)**	**# of neighbourhoods**	**Pop. Density (as of 12, 31, 2009 per km²)**
322.190	41,92	10	7.685

Bakırköy: Bakırköy is one of oldest settlements around İstanbul. İts history goes as back as to the Antiquity. It was longtime a modest village of fisherman as well as one of appreciated summer resorts of İstanbul since Roman, Byzantine and Otoman periods. Due to its location on the railway line it became a suburb of İstanbul towads the end of XIXth century and particularly after 1950s a vivid and fast growing part of metropolitan area. Today Bakırköy is an almost maturated districts of İstanbul with a quite stagnant building activities.

Bakırköy			
Population (as of 12, 31, 2009)	**Area (km²)**	**# of neighbourhoods**	**Pop. Density (as of 12, 31, 2009 per km²)**
214.821	29,65	15	7.245

Kadıköy: Kadıköy, the Chalcedon was a well-known city as well as an important harbour during Antiquity Kadıköy is perhaps one of oldest spot of agglomeration in all around İstanbul where the earliest traces of a neolithic village is found. İt has a attractive location on the shores of Marmara of Asian side with a mild climate particularly suitable for small size agriculture. Kadıköy was also an appreciated place of summer resorts all through Roman, Byzantine and Otoman periods. Kadıköy and suburbs which remained always apart of İstanbul and which developed its own identity is became a prestigious place of middle and upper class bourgeoisie during XIXth. Century due to regular domestic sea transportation and Anatolian railway. By the 1960s to 1990s Kadıköy is experienced a period of rapid growth and construction activities. As the result this appreciated place of summer resorts is transformed a metropolitan sub-center with a reasonable concentration of population. Today, Kadıköy is among top three wealthiest districts of İstanbul with a maturated urban character and stable and almost stagnant construction activities.

Kadıköy			
Population (as of 12, 31, 2009)	**Area (km²)**	**# of neighbourhoods**	**Pop. Density (as of 12, 31, 2009 per km²)**
550.801	25,07	21	21.970

Sarıyer: Sarıyer is located at the Europe side of the northern entrance of Bosphorus. Due to its location at the outskirts of metropolitan area its has a semi urban, semi rural character. Sarıyer hosts diverse social and urban characters. Here is the home of some well-known "gecekondu" (squatter) neighbourhoods as well as of some eminent gated communities and prestigious housing estates of İstanbul. Almost half of the district area is covered by dense Black Sea forests. Unfortunately there is constant threat of defrostation due to construction activities and coal mines along the Black Sea shore. Sarıyer is stil partially experiencing a almost fast urban growth if not in a boom situation.

Sarıyer			
Population (as of 12, 31, 2009)	**Area (km²)**	**# of neighbourhoods**	**Pop. Density (as of 12, 31, 2009 per km²)**
276.407	151,26	27+8 villages	1.827

Şişli: As a district Şişli is only founded in 1954. However Şişli hosts a large part of CBD of İstanbul metropolitan area. Şişli where once is covered with potages and vineyards is largely built through XIXth. Century. Today it is one of the wealthiest districts of İstanbul and a luxurious shopping place with shops of luxury brands, boulevard cafes, elegant restaurants and nice XIXth. and early XXth. century ornamented buildings and façades as well as high-tech bussiness towers (the third tallest of Europe Sapphire Tower-261 m. is located here) and shopping malls of upper end. However, actual building activities in Şişli is highly dominated by towers or high rise, luxurious office buildings towards nord. In other words it is the hub and major connection point of İstanbul and Turkey with global world, so it is also an attractive place for investors abroad.

Şişli			
Population (as of 12, 31, 2009)	**Area (km²)**	**# of neighbourhoods**	**Pop. Density (as of 12, 31, 2009 per km²)**
314.684	34,98	28	8.996

Üsküdar: Üsküdar is one oldest part of İstanbul, the Chrysopolis of Antiquity and located in a strategic point on Asia at the south entrance of the Bosphorus. Until 1926 Üsküdar was a separate province covering a large part of the Anatolia while it maintained its character as a modest habitation neighbourhood of İstanbul. Üsküdar even has a few of gecekondu neighbourhoods after 1950s never experienced an urban boom and always has a stable pace of urban development. Social and spatial characteristics of Üsküdar relatively not too much changed at least during the last century.

Üsküdar			
Population (as of 12, 31, 2009)	**Area (km²)**	**# of neighbourhoods**	**Pop. Density (as of 12, 31, 2009 per km²)**
288.743	11,31	13	25.529

Zeytinburnu: The name which literaly means "cap of olive" tells a lot of its original agricultural character of olive gardens. But, the name of Zeytinburnu is mixed in Turkey with "gecekondu" (squatter and squatting) in popular as well as academic perception. Zeytinburnu is located just outside of city walls on Europe. Hence, it was an industrial area of leather Works since Byzantian times. Due to concentration of industry in XIXth. Century Zeytinburnu is became one of workshop of İstanbul. However, 1940s and 1950s mark the major turning point fort his part of the city. During second half of 1940s, Zeytinburnu entered into an era of urban boom of gecekondus around industry. In a decade

population reached a couple of ten thousands and due to this rapid urbanization is became a separate district in 1957. Today most of industry are removed here and relocated around metropolitan area. However, dominant social and spatial characteristics of the area did not much changed and Zeytinburnu is stil largely maintains its labour character. After urban boom from 1940s to 1970s, Zeytinburnu is continously regenerated itself due to unrelentless construction activities and today it is stil on the agenda of land developers for urban renewal projects.

Zeytinburnu			
Population (as of 12, 31, 2009)	**Area (km²)**	**# of neighbourhoods**	**Pop. Density (as of 12, 31, 2009 per km²)**
529.550	35,34	33	14.984

Each case study areas introduced above represent a diiferent urban, social and economic characteristic in İstanbul metropolitan area. Some of them are located at the outskirts of the metropolitan area and still preserve their dynamism of urban growth and spread in physical pattern such as Avcılar, Sarıyer. A district with a mixed character such as Şişli host at the same time part of XIXth. century historic urban environment of bougeoisie, gecekondu areas and new growing metropolitan CBD core of İstanbul. And a very attractive spot for big investors and real estate developers. Zeytinburnu as an old settlement of gecekondu still experience a recontruction and regeneration in a continious reformation process and attracts small and middle size developers and constructors.

Whereas Bakırköy and Kadıköy represent mature and stable aspect of metropolitan area with relatively limited construction activities at the center of urbanized area. Üsküdar represent an interesting exception in itself since it stil shows symptoms of a spreading around if not a self-regeneration. Table 1 shows number of streets in each of case area in a period of twenty years. As the table indicates number of streets are changed for each case for each period. This may look unfamiliar. However İstanbul is stil fast growing metropolitan area and urbanization is on the way to spread around. There are two major rerason for a change in number of streets: urban spread or a change in district boundries. These two reasons are valid for this cases. New settlements or built-up terrains are continuously adding to urbanized areas. Therefore number of streets is also a good indicator to follow urban spread and growth speed of a district.

Districts	1990	2000	2010
Avcılar	923	1454	1855
Bakırköy	671	682	656
Kadıköy	1762	1978	1406
Sarıyer	1168	2130	2866
Şişli	1008	1204	1442
Üsküdar	1740	2161	2494
Zeytinburnu	791	908	927

Table 1: Number of Streets
(spatial entities which property tax value is based)
(Source: Authors, 2012)

The district of Avcılar is one of urban areas stil in formation at the periphery of İstanbul metropolitan area. This means building activities are intense and urban areas are spreading around. Number of streets also witnesses this activity and urbanization. Figures shows a total of 791 streets in 1990 while this number is reached 908 and 927 for years of 2000 and

2010. This shows that the built up area is grew almost 15% from 1990 to 2000 while the same ratio is almost 2% for the next decade.

Districts of Bakırköy and Kadıköy represent a considerable decrease in number of streets from 1990 to 2010 even an almost slight increase happens on the midway. This decrease is due to change in boundries. Boundries of Bakırköy and Kadıköy are changed in 1992 and in 2009 consecutively in a highly reducing previous areas.

Following districts show a continious trend of increase in number of streets since they are or they have neighbourhoods stil in formation or in regeneration. Here Sarıyer, Şişli and Üsküdar show highly dramatic examples of increase in streets. Sarıyer and Şişli are actually spreading around with new urbanizing areas. A slight increase in Zeytinburnu is an evidence of slow down in building activities and urban spread.

4. Change in Land Values

As mentioned above land values in İstanbul are analyzed through property tax values of ten years period from 1990 to 2010 of 7 selected districts of metropolitan area . The difference of tax values from 1990-2000, 2000-2010 and 1990-2000 are compared for each districts and then concluded and interpreted for İstanbul in general.

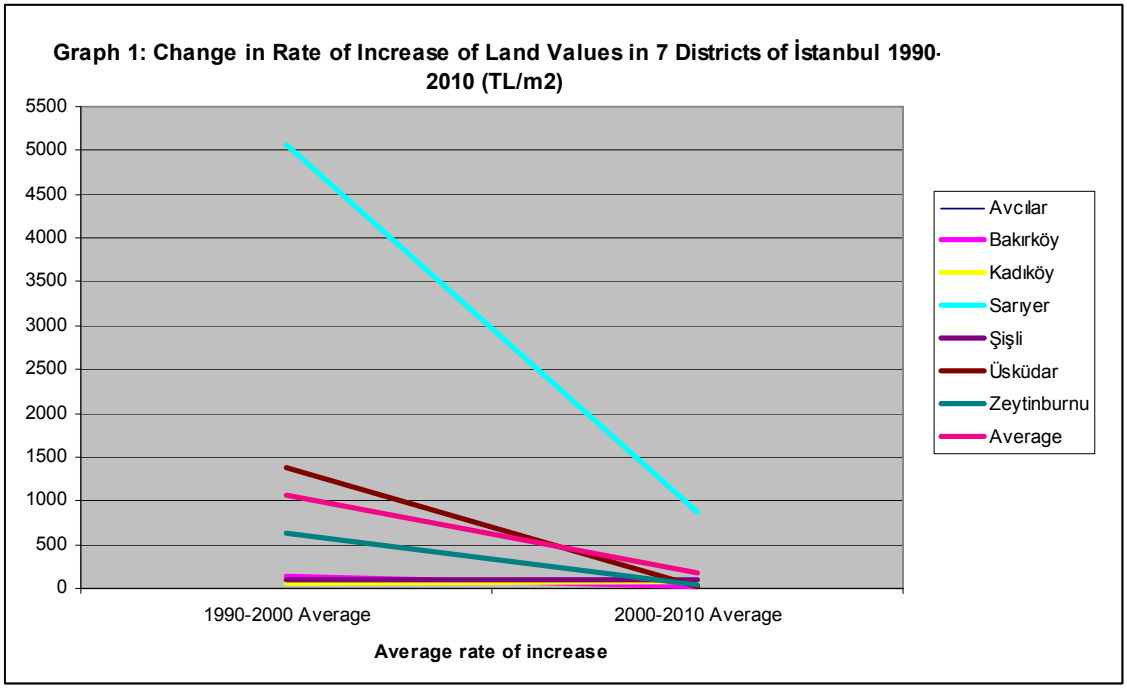
District	1990-2000 Average	2000-2010 Average	1990-2010 Average	1990-2000 Minimum	2000-2010 Minimum	1990-2010 Minimum	1990-2000 Maximum	2000-2010 Maximum	1990-2010 Maximum
Avcılar	84,904	62,986	2755,931	1	3	90	1000	2333,333	20000
Bakırköy	133,470	12,761	1724,297	50	4,896	669, 643	1142,857	53,75	20171,43
Kadıköy	58,7425	85,865	4466,607	6,25	20	628,57	4000	750	20833,33
Sarıyer	5065,733	858,439	124723,1	3	2,083	32,4	3500	375	110000
Şişli	93,170	99,235	7452,5	6	2,917	350	5000	1400	175000
Üsküdar	1384,033	13,0015	15626,58	0,30699	0,001185	0,000437	8965	843,72	72000
Zeytinburnu	637,115	47,42256	27861,69	10	2,857	1200	2000	375	133333,3
Average	**1065,31**	**168,53**	**26372,96**	**10,93671**	**5,107741**	**383,4951**	**3658,265**	**875,829**	**78762,58**

Table 2: Average Rate of Increase of Property-tax Values in Seven Districts of İstanbul (TL / m²) (Source: Authors, 2012)

As shown at the Table 2, and at the Graph 1, land prices according to tax values in İstanbul show a rocketing rate of increase in a period of twenty years. For example tax value of a squaremeter land in Avcılar increased from 0,06 TL[i] in 1990 to 4 TL in 2000 and 120 TL in 2010 which makes an increase of 6666,67 % between 1990-2000 and 3000 % between 2000-2010. For the district of Avcılar the average rate of increase of property tax values for "m²" is 637,11523. This means land value of a squaremeter is increased 637,115 times as average from 1990 to 2000. The least end the most higher rate of increase for the same period at Avcılar are 10 and 2000 consecutively. The change in land values for the period of 2000-2010 is realized in relatively more reasonable levels compared with the previous decade and figures are as follows: Average rate of increase is 47,42256 and the least and the most higher values of increase are 2,857143 and 375. For the whole period of 1990-2010 land values in Avcılar are increased averagely 27861,69 times. The less and the most big rates of increases are 1200 and 133333,3 times. The same interpretation may be made for other case areas.

In Bakırköy the same change is realized as 0,75 TL in 1990 to 80 TL in 2000 and to 960 TL in 2010 with a rate of increase of 10666,67 % and 1200 %. In Kadıköy unit value of a land on the Bağdat Street which is one of most prestigious shopping and promenade avenues of İstanbul is increased from 1,2 TL /m² in 1990 to 100 TL/m² in 2000 and to a rocketing level of 5000 TL/m² in 2010 with a rate of increase of 8333,33 % and 5000 % consecutively.

Whereas in Şişli, on the Büyükdere Avenue where luxurious Office towers and shopping malls gathered land values rised from 0,14 TL/m² in 1990 to 200 TL/m² in 2000 and to 11200 TL/m² in 2010 which makes an astonishing increase of 142857,14 % from 1990 to 2000 and 5600 % from 2000 to 2010. In İstanbul average rates of increase of seven districts in two consecutive decades through 1990 to 2000 and to 2010 are realized as 106530,96 % and 16853,00% and the accumulative rate of 2637295,79 % from 1990 to 2010.



(Source: Authors, 2012)

This time let's look a land in the popular village of Zekeriyaköy Sarıyer at the north of metropolitan area. Zekeriyaköy became one of appreciated places of gated communities in last decades. Tax values for a m² of land on a street in this village for years of 1990, 2000 and 2010 are as follows in TL: 0,02, 2, 35 which corresponds a rate of increase of 100 and 17,5 times. Equivalent of this values in USD are as follows for the same years: 7,62, 3,28, 22,97 which corresponds in reality a decrease of 56,89% in land value from 1990 to 2000. However this trend is covered in next decade with an increase of 699,14%. This example shows that general trend towards the north of metropolitan area following earthquake of 1999 since these areas are geologically more safe can not be generalized for whole northern parts of the city. Therefore location anyway matters. Increase in land value during 2000-2010 period should be interpreted an outcome of normalisation in general economy as well as neglect of eathquake fear and a anyway a rising demand for land due to popular trends.

However, effect of inflation is not excluded in these values. Turkey experienced a high level of inflation from mid of 1980s to early 2000s. Table 3 shows rate of inflation in Turkey from 1990 to 2010. But a correction according to inflation rates won't be enough sufficient to predict real rates of increases. Exchange rates of currencies of Turkish Lira and US Dollar as shown in Table 3 will be more pragmatic to understand real level of increases. inflation rate of US Dollar is not considered here. But anyway rate of increases according to US Dollar indicates a more realistic picture of trends in land values.

Now, interpretation of increases in land values according to exchange rates of TL/USD may lead us to a more reasonable and comprehensible levels of change. Above examples when considered according to exchange rate in currencies will be as follows: For example a

squaremeter land in Avcılar which has a value of 0,06 TL (60.000 TL) in 1990 corresponds to 22,86 US Dolar. The same way, 4 TL (4.000.000 TL) in 2000 and 120 TL in 2010 correspond to 6,57 and 78,74 USD. It looks that in reality there is no increase between 1990 and 2000 in USD. On the contrary there is a decrease of 71 %. In other words according to this figures an investor will be lost of 71 % of its capital in a ten years period if he/she invested on a real estate in Avcılar district in 1990. However, this is just an example and in different locations land values may change. But, this damage will be more than a coverage in the period of 2000-2010. A value of a unit land of 6,57 USD will be atteined to 78,74 USD with an impressive increase rate of almost 1200 %.

Let us consider other examples. 1,2 TL /m² unit value of a land along the Bağdat Street in 1990 corresponds to 457,23 USD. The same land which have a value of 100 TL/m² in 2000, corresponding to 164,24 USD with a decrease of 64,08 %. In 2010 the same land will reach a value equal of 3280,84 USD with an increase of 1997,55 %. At the Büyükdere Avenue in Şişli, a land with a value equal of 53,34 USD in 1990, then 228,48 in 2000 and 7349,08 USD in 2010. Trends in Şişli show some differences than previous examples since it represent a continious increase. Rates of increase in Şişli example are 428,35% from 1990 to 2000 and 3216,51% from 2000 to 2010.

1990	48,6	**1996**	84,9	**2001**	54,4	**2006**	9,7
1991	59,2	**1997**	91	**2002**	29,7	**2007**	8,4
1992	61,4	**1998**	54.3	**2003**	18,4	**2008**	10,1
1993	60,3	**1999**	62,9	**2004**	9,3	**2009**	6,5
1994	149,6	**2000**	32,7	**2005**	7,7	**2010**	6,4
1995	64,9	**Average of 1990-2000**	**69,98**			**Average of 2001-2010**	**16,06**

Table 3: Yearly Rate (%) of Inflation in Turkey (consumer prices)
(*Source: DİE (State Institute of Statistics), TÜİK (Statistics Institute of Turkey), Erdinç Tokgöz, 2001; 250, 277)*

1990	2624,5 TL	**Difference**
2000	608853,5 TL	**1990-2000:** 23198,84 %
2010	1,524 TL	**2000-2010:** 249,65 %

Table 4: Exchange Rates (TL for 1 USD)
(Source: DİE, (State Institute of Statistics), TÜİK (Statistics Institute of Turkey))

5. Change in Land Values and Trends in Urban Growth

Analyze of change in land values in seven districts of İstanbul show some interesting trends related with urban growth. A decrease in land values from 1990 to 2000 may look strange but it is also rational due to some particularities of case areas and to conditions of that time.

The period of 1990-2000 show an “excessive” rate of increase in land-values. Average rate of increase of seven districts is 1065,31. This means value of a m² land is increased 1065,31 times from 1990 to 2000. This kind of astronomical increases show a rising demand for land in metropolitan area. However, such an explanation won’t be sufficient to understand what really happens. A nominal increase may be deceptive and may hide an inverse trend as in the case of land values of 1990 and 2000. An analyze according to a more stable point of reference (USD) in this case reveals that even nominal values indicate an increase, land values are considerabley decreased in 2000 compared with that of 1990. However, this trend will completely replaced by a rising movement from 2000 to 2010. Here, the core of CBD of

metropolitan area indicates a unique trend in itself with a continuous upward movement of land values all through the period from 1990 to 2010.

A relative decrease in rate of increase of property tax values between 2000 and 2010 is due to stabilization in economy of Turkey as the Table 3 indicates in yearly rate of inflation through 2000s. Here, effect of inflation is highly reduced on land values. On the other hand İstanbul this time experiences a construction boom but not due to gecekondus (squatters) as happened in previous decades but particularly characterized luxurious buildings of any kind (housing, offices, shopping malls, education campus, cultural buildings etc.) via big private investor/developers as well as small or middle size entrepreneurs and of course by metropolitan and local municipalities. This trend is stil on the way. Rising construction activities naturally resulted with rising demands for land whether in center or periphery. There is shortage of land in İstanbul. Particularly enough large terrains for large scale development is scarce.

As mentioned before property tax values do not necessarily and always reflect market value of a land. increase. They may give an idea about market prices but are highly useful tools to follow change in trends. Therefore, a decrease in unit land value of property taxes should not be necessarily interpreted as the market prices also decreased for a given land or real estate. However, two conjunctural situautions affected land values particularly in 2000. Following the major earthquake of 1999, prices of real estates in İstanbul, particularly in southern stripe of the metropolitan area facing the Sea of Marmara such as Bakırköy, Kadıköy and Üsküdar and naturally in districts considerably touched and damaged by the earthquake like Avcılar are reasonably decreased. This trend is also reflected in property tax values which follow market trends.

Second, property tax values which were longtime determined and collected by the Ministry of Finance is transferred lo local authorities and mınicipalities are authorized to collect property taxes in 1986[ii]. According to legislation property tax values are shared between metropolitan municipality and district municipalities in metropolitan areas. Share of greater city municipalitiy is half plus 20 % of the rest of accumulative amount of the tax collected within metropolitan areas. The rest of the total amount is the share of district municipality. Property tax is longtime viewed and perceived by government, local authorities and by the people in Turkey as tool of social justice by which public takes its share from private wealth and always legitimized since this share is used for public expenditures for the well-being of the whole such as technical and social infrastructure. According to this understanding rate of property tax values followed market trends but always remained in reasonable ratios compared with that of market price of a land. 2002 marks a major turning point in this way since all property tax values are increased 100% to reflect more realistic market prices without any other justification. Since then, this upward tendency of property taxes is on the way and the difference between market prices and property tax values are getting more closer each year. This trend may affect market prices and the interaction with property tax values may turn down and property taxes may be decisive over market prices in near future. But for the time being there is no evidence of this happens.
Today property taxes in generally viewed and perceived as a usefull and direct tool of fundrising for municipalities for to cover rising expenditures of every kind. Therefore, the social justice aspect is almost neglected. In a very dynamic metropolitan area where real estate market, construction and urban spread are on the way of a continious rapid growth, property taxes remains as an unaltered source of income[iii].

6. Conclusions: Lessons Learned

İstanbul is a large metropolitan area stil in formation and far from an equilibrium point in terms of spatial growth and social change. This dynamism contributes no doubt a lot to

economy of the city. However, this fast urban growth and spatial spread which are not looking sustainable in spite of available lands and natural resources like water are leading İstanbul into an urban crisis at the future. As it is criticized an urban spread disconnected to its relations and context is not only a bad aesthetics but a bad economy also (Batty, 2005). This is almost the case of İstanbul.

During couple of last decades, the urban pattern and economy of İstanbul largely shaped by land speculation. İstanbul has a highly competitive real estate market. However this competition their effects on real estate prices are more visible on city center and on lands enough big and suitable for large scale urban developments. Therefore the location and the size matters in the case of İstanbul to determine value of a land.

This study puts forward some patterns of relation between urban growth/spread and land values according property taxes:

- The case of rate of increase in propety tax values of seven districts in İstanbul show that, land values, rate of change and trends may differ dramatically from one location to another in a large metropolitan area such as İstanbul. The case of İstanbul clearly shows that the location really matters.
- The rate of articulation and interaction with the economy of the whole of metropolitan area affect land values of a place. The case of İstanbul points that at the periphery where local economy is more dominant, land values may be subject of more fluctuations and gets relatively less advantage of a land value boom.
- As much as the city articulates with global system, as more as it becomes dependant to capital flows abroad. In a situation of a continious investor/developer interest and regular capital flow major CBD areas may be independant of fluctuations in local economy and market, keeping its pace upward but instead it may become more fragile to international fluctuations. However, this not happened in a dramatic way in İstanbul until now.
- Rising values of land is a powerfull engine for the local economy which provides a big dynamism. However, this always brings the danger of largely real estate depended economy and pressure of developers, urban spread and regeneration easily outdating urban plans and planning discipline which is quite the case of İstanbul.
- Relation and interaction of property markets with general trends of economy is not always clear and direct as mostly presumed. Evidences may be less than supposed. Findings of a research in Kadıköy district of İstanbul show few connection between local real estate market trends and that of general economic situation (Akbulut, Başlık, 2011).
- Existing models and theoric explanations on the relation of land value and urban growth are mostly based on simplifications. More analytic research and especially comparative studies among different cities in the world to understand what really happens in real world situations and particularities of each case.

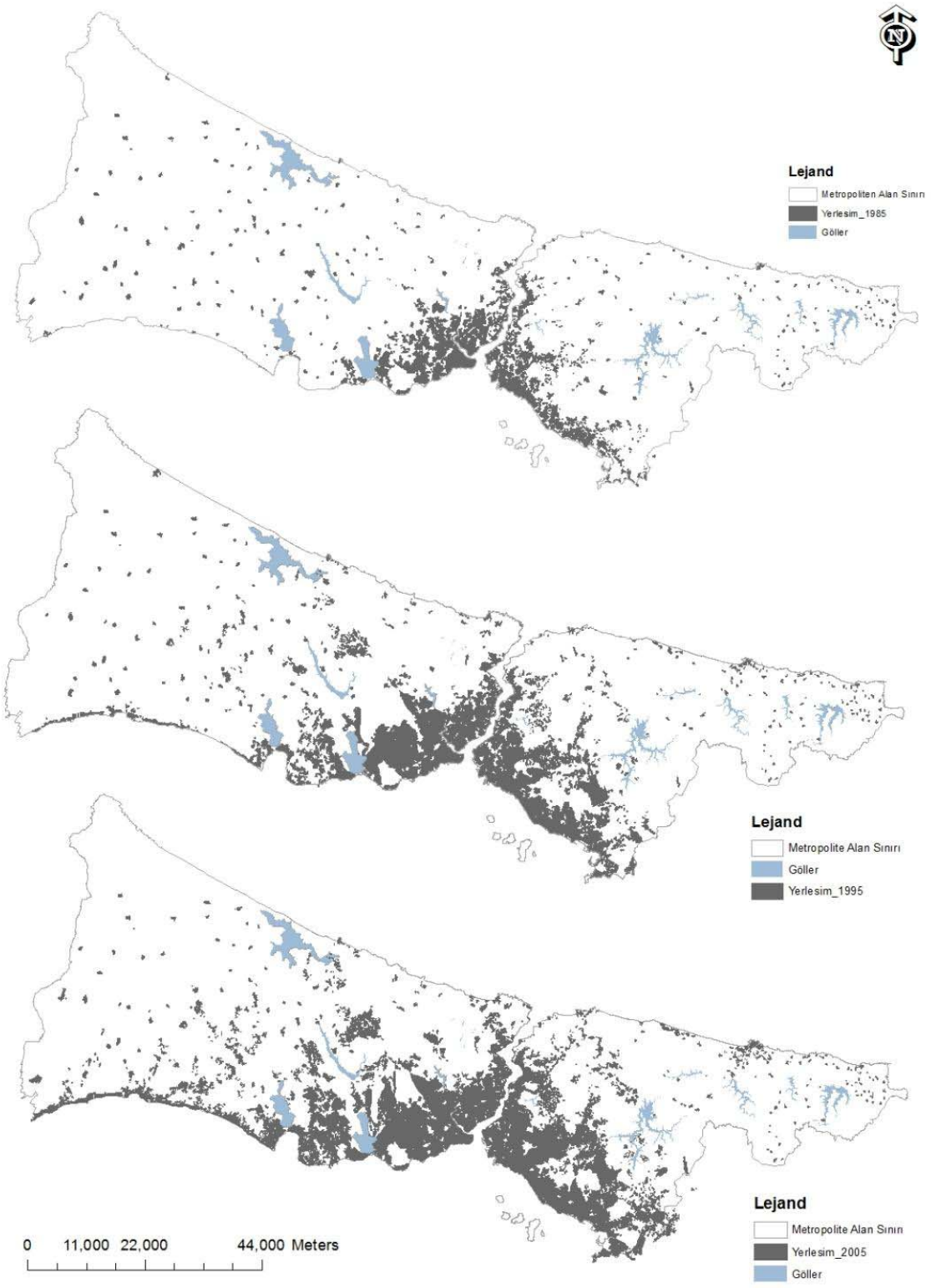


Figure 1: Urban Spread of İstanbul in 1985, 1995 and in 2005 (Source: Başlık, 2008)

Endnote

[*] This paper is based upon findings of a research project entitled "AP 200922-2009- İstanbul Örneğinde Arazi Değerleri ve Kentsel Gelişme Etkileşiminin Araştırılması (Interaction Between Land Values and Urban Development and Spread: The Case of İstanbul) which is supported by Mimar Sinan Fine Arts University Research Funds (2009-2011).

[i] Unit of currency for all land values in this paper is Turkish Lira (Türk Lirası-TL). Six digits are removed from Turkish Lira in 2004 and a new currency became effective as of January 1st, 2005. Therefore 1.000.000 TL is reduced to 1 TL. Prices and values before 2005 are shown here also in new currency. For example 0,06 TL was 60.000 TL originally in 1990. Average rates of increase are according to values in new currency whether before or after 2005.

[ii] Property tax is a practice in Turkey since the Otoman period. First legislation during the Republic is made in 1931. According to this act, property taxes were collected by local authorities due to a value predetermined locally. In 1972 the right to determine tax amount and collection is transferred to the Ministry of Finance. Then this retransferred to localities in 1986.

[iii] In 2010, İstanbul with cities of Ankara, İzmir and Kocaeli provide almost 80 % of total tax revenues of Turkey. The share of İstanbul in Turkey's total tax revenues is 43,6 % which makes 91.891.715.000 TL, equivalent of 60.296.401.000 USD. Whereas share of property taxes is some 20 % in whole taxes.

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