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TABLE 1.
Population Growth Trends in Brasília, Curitiba and Recife
Metropolitan Regions, 1991-2000

CITY	POPULATION		ABSOLUTE INCREASE	ANNUAL AVERAGE INCREASE	COMPOUND ANNUAL GROWTH RATE(%)
	1991	2000			
Brasília	1,592,000	2,403,000	811,000	90,100	4.7
Curitiba	2,051,000	2,594,000	543,000	60,300	2.7
Recife	2,917,000	3,339,000	422,000	46,900	1.5

TABLE 2.
Housing Growth Trends in Brasília, Curitiba, and Recife
Metropolitan Regions, 1991-2000

CITY	HOUSING UNITS		ABSOLUTE INCREASE	ANNUAL AVERAGE INCREASE	COMPOUND ANNUAL GROWTH RATE (%)
	1991	2000			
Brasília	357,639	525,321	167,682	18,631	4.4
Curitiba	533,172	732,827	199,655	22,194	3.6
Recife	668,299	902,539	234,240	26,027	3.4

TABLE 3.
Total Land Area and Urbanized Land Areas in
Brasília, Curitiba and Recife Metropolitan Regions, 1991-2000

CITY	TOTAL LAND AREA (HECTARES)	URBANIZED LAND DEVELOPMENT (HECTARES)				ABSOLUTE INCREASE 1991-2000	ANNUAL AVERAGE INCREASE	COMPOUND ANNUAL GROWTH RATE (%)
		1991	1991	2000	2000			
		Urbanized Land (hectares)	% of Total Land Area Urbanized	Urbanized Land (hectares)	Percent of Total Land Area Urbanized			
Brasília	612,276	40,213	6.6	61,648	10.1	21,435	3,573	7.4
Curitiba	206,159	89,669	43.1	109,629	52.7	19,970	2,219	2.3
Recife	276,143	31,559	11.4	37,669	13.6	6,110	679	2.0

FIGURE 1.
Population Density Gradients: Brasília, Curitiba and Recife, 2000

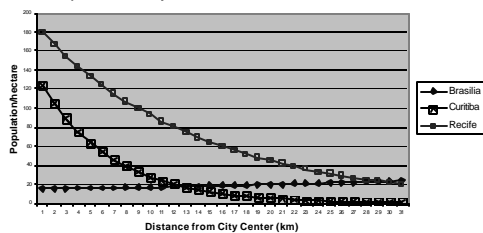
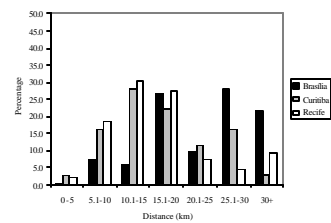
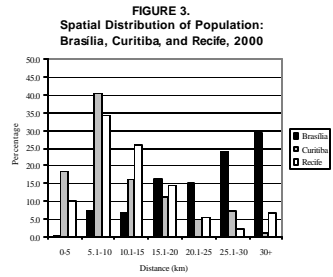


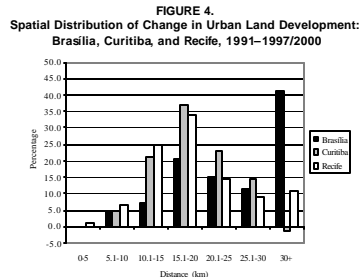
FIGURE 2.
Spatial Distribution of Population Change: Brasília, Curitiba, and Recife, 1991-2000



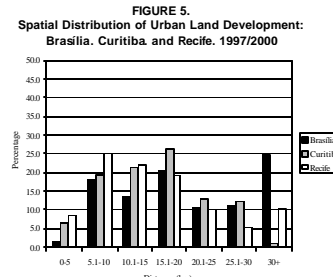
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MAP 2.
Urban Land Conversion: Recife, 1991-1997

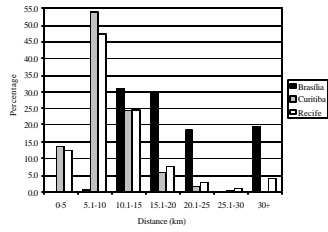
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MAP 3.
Urban Land Conversion:
Curitiba, 1991-2000



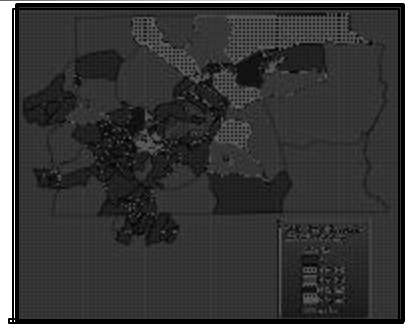
1. The spatial distribution of informal housing stock in Curitiba, Brazil, 1991-1997

FIGURE 6.
Spatial Distribution of Informal Housing Stock:
Brasilia, Curitiba, and Recife, 2000



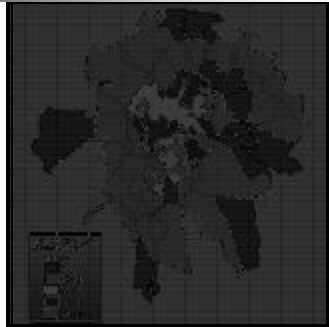
1. The spatial distribution of informal housing stock in Brasilia, Brazil, 1991-1997

MAP 4.
Informal Housing
Stock
Change:
Brasilia,
1991-1997



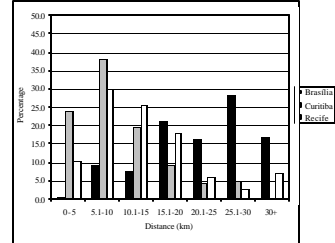
1. The spatial distribution of informal housing stock in Curitiba, Brazil, 1991-2000

MAP 5.
Informal Housing
Stock
Change:
Curitiba,
1991-2000



1. The spatial distribution of formal housing stock in Brasilia, Brazil, 1991-1997

FIGURE 7.
Spatial Distribution of Formal Housing Stock:
Brasilia, Curitiba, and Recife, 2000



1. The spatial distribution of formal housing stock in Curitiba, Brazil, 1991-2000

MAP 6.
Formal Housing
Stock
Change:
Curitiba,
1991-2000



1. The spatial distribution of formal housing stock in Brasilia, Brazil, 1991-1997

MAP 7.
Formal Housing
Stock
Change:
Brasilia,
1991-1997

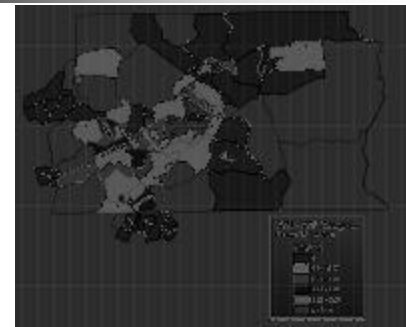


TABLE 4.
Stepwise Regression Results:
Brasília, Curitiba and Recife, 2002 and 2003,
Dependent Variable: Log (base e) of Constant Reis per Square Meter

	BRASÍLIA2003		CURITIBA_2002		RECIFE_2003	
	BETA	SIGNIFICANCE	BETA	SIGNIFICANCE	BETA	SIGNIFICANCE
CONSTANT	6.994 (27.873)	.000	4.469 (26.191)	.000	3.568 (158.865)	.000
DISTANCE TO CBD	-.089 (-13.737)	.000	-.117 (-48235)	.000	-.047 (-28.913)	.000
PAVEMENT DUMMY	1.027 (7.375)	.000	.748 (93.676)	.000	.639 (202.710)	.000
TITLE DUMMY					.194 (8.446)	.000
PAVEMENT AND TITLE DUMMY			.391 (2.215)	.000		
PLOT SIZE DUMMY	-.993 (-4.313)	.000	-.479 (-112.938)	.000		
ADJUSTED R ²	.585	d = 175	.656	d= 1921	.394	d=2500

T statistics are in parentheses.

TABLE 5.
Interpreted Regression Results:
Brasília, Curitiba and Recife,
2002 and 2003,
(from Table 26)

Red figures are estimates of dependent variable (plot price per square meter (Reis))

	BRASÍLIA 2003	CURITIBA_2002	RECIFE 2003
Constant value, no paved road, no title and no plot (reais per square meter)	426	87	9
Value adjustment for having paved road (factor and reais per square meter)	2.79 ↔ 1,189	2.11 ↔ 186	1.86 ↔ 168
Value adjustment for having title (factor and reais per square meter)			1.21 ↔ 64
Value adjustment for having both paved road and title (factor and reais per square meter)		1.47 ↔ 128	
Value adjustment for having large plot (factor and reais per square meter)	370 ↔ 158	658 ↔ 57	
Distance value adjustment	-.089	-.117	-.047
Intercept value at 10 kilometers	175	27	3

CONCLUSIONS

This report has presented the results of land market assessments in three Brazilian cities. There are several overarching conclusions that can be drawn from the effort.

First, it is feasible to carry out such assessments.

Second, they result in the compilation of socio-economic, land use, and land price information that is useful for gauging the effectiveness of urban planning, infrastructure provision and land titling.

Third, the results indicate that urban land market dynamics in less regulated cities (Curitiba and Recife) perform well and reflect patterns and trends found in other cities around the world.

CONCLUSIONS

- Data on formal housing stock patterns indicate that housing is abundant in the core areas of Curitiba and Recife.
- Prices of residential land in suburban areas of Curitiba and Recife are in the 30–40 reais per square meter range.
- In the case of Brasília, significant land market distortions were identified. Population is forced to commute longer distances and land prices are about 5 times higher in suburban areas than in Curitiba and Recife.
- With respect to infrastructure provision and its effects on land prices, results in the three cities indicate that infrastructure provision can increase land prices by 89%–179%.
- With respect to provision of title, the evidence is less compelling statistically.