

Final Draft

A NATIONAL SETTLEMENT PROGRAM FOR TRINIDAD AND
TOBAGO: THE KEY TO HOUSING POLICY REFORM

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A NATIONAL SETTLEMENT PROGRAM FOR TRINIDAD AND TOBAGO: THE KEY TO HOUSING POLICY REFORM

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The objectives of this report are (a) to assess current housing conditions in Trinidad and Tobago, (b) to diagnose the status of its housing policy regime, and (c) to provide a set of detailed practical guidelines that could effectively, yet gradually, transform housing policy in the country. The report is meant to be used as a basis for a dialogue between the Ministry of Housing and Settlements and the Inter-American Development Bank (IDB) at this time, and to assist both parties in the design of a detailed program of action on housing.

EXECUTIVE SUMMARY

The report is divided into four sections:

I. The Economic, Social and Political Context: This section examines population growth and housing demand and estimates an annual demand of some 6,000 units, likely to be distributed throughout the country (including its rural areas). Median annual household income was found to be \$3,013 according to official estimates, but may be as high as \$7,412 if under-reporting is taken into account. The skewed income distribution in the country will limit the ability of below-median income families to pay for housing. Inflation rates were found to be low, 3.4% in 1999, and exchange rates were stable. The financial sector was healthy and robust. Interest rates on loans were relatively low as well – averaging 13% as of February 2000. Conditions in the financial sector, as well as low inflation, make it possible to expand the access of households to mortgage finance. The construction sector contributed 11.5% to GDP in 1999 and grew rapidly in recent years. There is excess capacity, as well as sufficient skilled labor and talent, in the private construction sector to meet additional housing demand. Government revenues formed a high percentage of GDP (27.7% in 1996 for example). The State owns 53 percent of the land in Trinidad and 34 percent in Tobago. The Government collects significant revenues, and continues to contribute a wide range of fiscal resources to subsidize housing. It has an ambitious public sector investment program (PSIP), and housing investments for FY 2000/2001 are expected to form some 2% of total government revenues.

II. Conditions in the Housing Sector: Housing conditions in Trinidad and Tobago are generally at par with other countries in Latin America and the Caribbean, as well as with other upper-middle income countries. There is no shortage of dwelling units (248 per 1,000 people in the Port of Spain corridor, for example) and no overcrowding (floor area in the

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corridor is estimated at 18.1 m² per person). The quality of housing is relatively high (91.3% are permanent structures), although residential amenities need to be improved. Serviced residential land by the private sector appears to be in short supply, although land for residential construction appears to be plentiful and land prices are stable. Raw land prices averaged TT\$2.10 (US\$0.33) per ft², and serviced land prices averaged TT\$7.10 (US\$1.13) per ft² in government projects in recent years. Mortgage finance is generally available, from commercial banks and approved mortgage companies (AMCs), for low-cost and middle-cost housing at subsidized interest rates: 8% per annum for homes priced below TT\$150,000, 8.5% for homes priced between TT\$150,000 and 200,000, and 9% per annum for homes priced between TT\$200,000 and 250,000. Construction costs are quite high by regional standards (TT\$76 per ft² or US\$180 per m²), and housing production is generally undertaken by small contractors on individually-owned plots of land. Preliminary observations suggest that the median house price in the Port of Spain metropolitan area is of the order of TT\$125,000 (including land). If the median household income is indeed of the order of TT\$20,000, then the house price-to-income ratio is 6.3, implying that houses are now very expensive in comparative terms. If however, undeclared income is taken into account then median household income is of the order of TT\$46,700, and the house price-to-income ratio is 2.7, a ratio more in line with other countries in Latin America and the Caribbean region. The rental sector in Trinidad and Tobago continues to shrink, and yet rents appear to be relatively stable. Home ownership has been on the increase in Trinidad and Tobago, in line with the shrinking of the rental market: The rate of home ownership increased from 65 percent in 1980 to 74 percent in 1990. There were 19,526 squatter settlements in the country in 1990. The Land Settlement Agency (LSA) now estimates the number in the year 2000 to be much higher – 25,000 squatter households on public lands and 25,000 on private lands.

III. The Status of Housing Policy: Housing policy in Trinidad and Tobago is now at an important juncture. The housing program of the Ministry of Housing and Settlements still contains numerous components of direct involvement in the provision and financing of housing. These need to be rethought if future housing policy is to be more enabling and less interventionist, if it is to operate at a sufficiently large scale, and if it is to be targeted more precisely at low-income households. The property rights regime in the country is a serious obstacle to increasing housing supply, a constraint on obtaining construction loans and housing finance, and a main cause for the proliferation of informal land subdivisions and squatter settlements. Squatter regularization in public lands is only now entering a practical stage, where it will need to be done at a sufficient scale. In the future it will need to incorporate a mechanism for upgrading squatter settlements on private lands as well. The housing finance regime in Trinidad and Tobago is highly developed and mortgage loans are accessible, but no data is available on whether or not housing finance is moving down market. Housing subsidies in Trinidad and Tobago are large and varied (a study of housing subsidies in 1993 identified ten different kinds of housing subsidies). The housing subsidy system will need to be examined in greater detail with an eye to a fundamental reform of the system in the coming decade, ridding the public sector from unnecessary subsidy burdens, targeting subsidies more directly at low-income households, and leveraging more resources per subsidy dollar. The regulatory regime governing the

housing sector is still cumbersome and highly centralized, with the result that most construction is carried out without proper permits. It must be made simplified, more realistic, more flexible, and more streamlined. Finally, the institutional structure governing the housing sector must be reformed in a way that makes it possible for the government to focus more acutely on the housing (as distinct from urban planning), to monitor the housing sector as a whole, as well as to formulate and implement a national housing policy.

IV. The National Settlements Program: The proposed National Settlements Program aims at largely eliminating squatting by vastly increasing the number of available serviced sites, adding 3,000 new sites to the existing stock – more than 50% of the total annual demand for new sites. It will greatly improve the targeting and effectiveness of subsidies, by employing a competent Targeting Group, by directing 30,000 subsidy+loan packages of TT\$20,000 to households with below-median incomes, by lowering subsidy levels and spreading them to larger numbers of people, and by leveraging subsidies to create additional non-subsidized plots. It will increase efficiency, innovation and accountability by implementing the program through three parallel windows within the Land Settlement Agency (LSA) – a public sector window, a private sector window and a civic sector window – that will all be competing with each other on a parallel playing field. It will balance the three key housing needs in the country by injecting equal amounts of resources into the production of new serviced sites, the improvement of infrastructure existing settlements, and the construction of core houses on individually-owned or leased plots. It will extend the benefits of squatter settlement improvements to established communities on private, rather than public lands, by creating the necessary legal and administrative mechanisms and by providing subsidy+loan funds for the purchase of occupied lands. It will streamline and industrialize the provision of core houses on individually-owned and leased plots, offering 1,500 new core houses per year, a quarter of the required annual house supply in the country. It will encourage and accelerate the reform of planning and building regulations to facilitate low-cost progressive land development. And it will create and empower a National Housing Council (NHC) in the Ministry of Housing and Settlements as a forum for the formulation and monitoring of national housing policy, and it will improve the research, evaluation and data collection necessary for Council policy making by creating and providing resources for the Housing Intelligence Unit. At the same time, the program calls for a reallocation of Government and IDB housing resources, rather than for vastly increasing the resources allocated to the sector. The program requires an annual allocation of TT\$150 million (US\$24 million) over a five-year period, while the estimated development program allocations for housing programs in the Ministry average during 1998–2001 – TT\$172 million (US\$27.5 million) [Ministry of Housing and Settlements, 2000b].

I THE ECONOMIC, SOCIAL AND POLITICAL CONTEXT

The housing sector does not operate in a vacuum, but rather reflects the economic, social and political conditions prevailing in the country. In turn, it also modifies these conditions: either by contributing to economic growth, by generating personal wealth through the

development of housing assets, or by accentuating poverty, income inequality and wealth inequality. In the particular circumstances of Trinidad and Tobago, the economic, social and political context affects the housing sector in seven specific ways: the slow growth of population in the country moderates housing demand; the high level of urbanization on the one hand, and the dispersal of the urban population all over Trinidad on the other diffuse housing demand; the dependence of the economy on oil exports has led to volatile investments in housing, both by the private sector and by the public sector; relatively high incomes, volatile income fluctuations and a highly skewed income distribution affect the resources available for housing as well as housing affordability; a robust and healthy financial sector and a low rate of inflation increase the availability and reduce the cost of mortgage finance; a developed construction sector contributes a substantial share of the Gross National Product, as well as a substantial share of total employment; and activist government fiscal policies allocate substantial investment resources to social and economic programs in general and to housing programs in particular. Seven contextual aspects of the housing sector are discussed in greater in the following paragraphs:

1. population growth and housing demand;
2. urbanization and the location of housing demand;
3. economic growth and recession and housing investment;
4. income, income distribution and housing affordability;
5. the financial sector, inflation and housing finance;
6. the role of the construction sector in the economy; and
7. activist fiscal policies and housing subsidies.

Basic economic and social indicators reflecting these contextual factors in Trinidad and Tobago and comparing them with other countries in Latin America and the Caribbean, with Latin America and the Caribbean as a whole, with other upper-middle income countries of similar levels of economic development as that of Trinidad and Tobago, and finally with conditions in the world as large are given in table 1 below.

1. Population growth and Housing Demand: The rate of population growth in Trinidad and Tobago, estimated to be 0.9% per annum between 1997 and 2015, is generally lower than that of countries in similar circumstances both in the Latin American and Caribbean region and elsewhere. This may be largely explained by the relatively high incomes in the country, the high level of urbanization, and the relatively high level of out-migration. A comprehensive 1993 housing study of Trinidad and Tobago summarizes population growth trends in the country in recent decades: “[T]he average population growth rate has ranged from a low – 0.1 percent between 1965 and 1970 to a high of 3.3 percent between 1955 and 1960. Between 1980 and 1990 population growth has been as low as 1 percent [PADCO and Laughlin, 1993a,7–8].

Table 1: Basic Economic and Social Indicators, 1990B2000

Indicator	Trinidad & Tobago	Panama	Guatemala	Ecuador	Venezuela	Latin America & the Caribbean	Upper-Middle Income Countries	The World
Country Population (millions), 1997	1.3	2.8 ¹	11.1	12.0	23.0	494	571	5,820
Annual Population Growth Rate, 1997-2015 (%)	0.9	1.3	2.7	1.5	1.5	1.3	1.2	1.1
Urban Population (%), 1997	71.2	56.4	39.7	60	86	74	74	46
Labor Force in Agriculture, 1990 (%)	9 ¹	21	52	33	12	25	25	49
Household Size, 1990	4.1	4.2	4.8 ¹	4.7	4.4	4.3	4.0	4.1
Annual Urban Population Growth (%), 1990-2010	1.13	2.48	3.8	3.13	2.11	2.15	2.7	2.55
Country GNP (\$ billions), 1997	5.5	8.4	18.8	18.4	78.7	1,196.8	2,584.0	29,925
GNP per Capita (\$), 1997	4,230	3,080	1,691	1,570	3,450	3,940	4,540	5,180
Annual GDP per Capita Growth (%), 1990-98	1.58	2.9	1.5	1.0	5.3	1.8	3.2	-
Income Distribution Gini Index (1985-95)	50.0 ²	57.0	59.6	46.6	46.8	51.6	-	39.1
Annual Inflation (%), 1990-97	6.7	1.4	17.0	37.7	52.0	106.2	-	14.4
Under-5 Mortality Rate per >000, 1996	15	25	55	40	28	41	37	73
Female Life Expectancy (years), 1996	75	76	69	73	76	73	73	69
Female Adult Illiteracy (%), 1995	3	10	51	12	10	15	17	38
Access to Safe Water (%), 1995	82	83	68	70	79	73	-	78
Access to Sanitation in Urban Areas (%), 1995	97	87	78	60	74	80	-	-
Government Revenues as % of GDP, 1996	27.7	27.4	11.0	15.7	19.7	21.6	24.1	26.6
Government Budget Deficit as % of GDP, 1996	-3.1 ³	-3.0	B2.8	0.0	1.4	-3.3	-3.4	-3.1
Debt as percent of GDP (%), 1997	36.9	88.1	22.4	75.0	39.9	33.6	-	-
Gross Domestic Investment as % of GDP, 1997	21.0 ³	34.9	17.0	20.2	18.8	24.4	-	22
Value Added by Construction as % of GDP, 1997	10.8	4.5	2.5	3.2	5.2	5.3	-	-
Gross Domestic Savings as % of GDP, 1997	29.0	35.6	9.4	19.2	30	20	22	22
Banking Sector Credit as % of GDP, 1997	59.2	92.1	15.8	29.0	19.9	35.7	44.9	139.1
Institutional Investor Credit Rating, 1998	47.2 ⁴	33.9	27.0	26.7	34.4	33.5	45.9	35.8
Corruption Perception Rank (lowest=99), 1999	-	-	68	82	75	61	-	49

Sources: The World Bank, *World Development Report-1998/9*; International Monetary Fund, *International Financial Statistics Yearbook-2000*; United Nations, *World Urbanization Prospects-The 1992 Revision*; Inter-American Development Bank, IDB Statistics and Quantitative Analysis Unit, www.IADB.org; and Transparency International, *The Corruption Perceptions Index-1999*. ¹ Data for 1995. ² Data for 1997 (See Annex) ³ Data for 1999. ⁴ Data for 2000.

The country now has a population of the order of 1.3 million and a household size of 4.1. If we assume that household size is now relatively stable and ignore, for the moment, the need for replacing houses that cannot be upgraded for one reason or another, a 1% annual growth rate in the number of households implies a demand for new housing of 3,200 units per annum. If we add housing demand due to a slow shrinking of household size, we may arrive at a conservative estimate of at most 4,000 new units per annum during the coming decade to accommodate new household formation. 2,000 additional units may be required annually to replace old and dilapidated units, and to resettle families occupying sites requires for public works. In the 1980–1990 period, for example, although the net addition to the stock was of the order of 4,000 units per annum, approximately 8,900 units per year were actually built [PADCO and Laughlin, 1993]. In the absence of more accurate projections, we can assume that some 6,000 new units will be added annually to the housing stock in the coming decade.

2. *Urbanization and the Location of Housing Demand:* Like many other Latin American and Caribbean countries, Trinidad and Tobago is highly urbanized. In 1999, for example, 71.2% lived in urban areas, and agriculture (mainly sugar) contributed less than 2% to the Gross Domestic Product (GDP), down from 10% in 1963 [Stanfield and Singer, 1993, vol. 1, 5]. Over 95% of the population of the country lives on the island of Trinidad, which has a total area of 4,828 km² (1,864 m²), and some 90% of the area of the island is within 60 km. (37 m.) from the center of Port of Spain, the capital. Population density in Trinidad and Tobago is high, by regional and global standards, suggesting that Trinidad is already an urban island. Gross population density in the country in 1997 was 253 persons per km², the fourth highest in the Latin America and Caribbean region after Puerto Rico, El Salvador and Haiti. It was also the fifteenth highest density among 148 countries in the world at large. By contrast, Singapore, another urbanized island nation had a gross density of 4,991 persons per km² in 1997 [World Bank, 1999, table 1.1, 12]. In 1993, 25% of the land in the country was devoted to agriculture, 46% to forests and woodlands, and 28% to other land uses [LANIC, 2000]. 52% of the land in the country was state-owned [Pamuk and Dowall, 1998, 293].

The urban population is concentrated in the East–West Corridor centered on Port of Spain, and to a lesser extent on the Western Corridor extending south from Port of Spain to the city of San Fernando. Suburbanization in both corridors is substantial: the population of both Port of Spain and San Fernando declined by 13% between 1980 and 1990 [Stanfield and Singer, 1993, vol. 1, 5]. We can safely assume that these two corridors will increase in density in the coming decade. However, we should take into account the fact that the country has an ethnic composition which is reflected in its pattern of urbanization: 39.5% of the populations are Afro-Trinidadians that live mainly along the East–West Corridor, and 40.3% are Indo-Trinidadians that live in and around San Fernando and in rural Trinidad. Many commute to Port of Spain, and the average length of the journey to work is estimated at 70 minutes, very high by global standards. This special pattern of urbanization and commuting suggests that, in fact, most of the island of Trinidad is within commuting range of Port of Spain, and hence there is no real distinction between urban and rural Trinidad.

A growing number of families live in rural areas and work in urban areas, and this proportion is likely to increase. The 1993 Housing Study estimated that of the 47,000 new households created between 1990 and 2000, only 22% will have located in the East-West Corridor, only 25% will have located in Western Caroni, the San Fernando area and the secondary towns, while 53% will have located in the rural areas designated at "the rest of Trinidad." It is assumed, for lack of better data, that a similar pattern will prevail in the coming decade. To accommodate this decentralized pattern of housing growth, great care must be taken not to restrict residential growth to specific planned "growth centers," but rather to allow it to be distributed throughout the island, in urban as well as in rural areas. This also implies a relaxation of land use restrictions that do not permit residential development in rural and agricultural areas, even in the face of the much greater productivity in the use of land in residential, rather than in agricultural use. Surely, adequate care must be taken to protect national parks, national forests (45.8% of the total land area in 1996) and environmentally-sensitive wildlife reserves. Yet concern for environmental protection should not be allowed to block residential development, nor to make it more expensive than necessary by restricting the availability of residential land for development. These concerns apply with special urgency to the agricultural lands and vacant lands in Caroni, which are the most desirable lands for efficient urban and residential development in close proximity to existing infrastructure.

3. Economic Growth and Recession and Housing Investment: Housing investment by the private and the public sectors in Trinidad and Tobago, like in any other country, is a reflection of overall economic development. The dependence of the economy on oil exports (hydrocarbons still account for more than 25% of GDP) has led to a peaking of GDP per capita in 1982 at US\$6,200 followed by sharp contractions. The lowest reported GDP per capita was US\$3,160 in 1989. It grew in spurts to US\$3,740 in 1994, and it has grown steadily since 1994, at an average rate of 3.8%. The economy grew by 5.1% in 1999 and is expected to grow by 4-5% and possibly more in 2000, given the present global rise in oil prices. Economic growth has been accompanied by the reduction of external debt, from 51% of GNP in 1995 to 36% in 1998. High rates of unemployment, of the order of 20% in the early 1990s, have been gradually coming down in recent years. The unemployment rate was down to 15% in 1997, 14.2% in 1998 and 13.1% in 1999. It is estimated that 15,000 new jobs were added to the labor force annually between 1994 and 1999.

The severe recession and the consequent slow economic growth have had a serious effect on housing demand and supply, greatly reducing the share of household incomes available for housing, while pushing developers away from the residential real estate market. They also lead to a severe shrinking in government housing programs, and to a worsening household income distribution. Still, Trinidad and Tobago is by no means a poor country today. Its GNP per capita of US\$4,230 in 1997, for example, was higher than the average for Latin America and the Caribbean. Its GDP per capita, US\$4,727 in 1998 and US\$5,006 in 1999, was the sixth highest in the region, after the Bahamas, Barbados, Argentina, Uruguay and Chile. Similarly, as table 1 shows, it had very high levels of adult literacy, high rates of life expectancy and low rates of child mortality. It also had high levels

of infrastructure services, such as access to safe water and sanitation. Household savings in Trinidad and Tobago were also relatively high by regional standards. Savings formed 29% of GDP in 1997, compared with 20% in Latin America and the Caribbean as a whole. It should come as no surprise, therefore, that, in relative terms, the quantity and quality of housing in Trinidad and Tobago are both relatively high, as we shall see below.

4. Income, Income Distribution and Housing Affordability: The household income distribution in Trinidad and Tobago, shown in table 2, is highly skewed but typical of Latin American and Caribbean countries. Its Gini coefficient, up from 0.48 in 1990 to 0.52 in 1997, is now identical with the average for Latin America and the Caribbean in 1990, 51.9, but considerably higher than the median value of the coefficient for the world as a whole, 39.1. It should be noted here, however, there is a vast disparity between reported incomes in the surveys of the Central Statistical Office and private consumption data in national accounts. Private consumption in the national accounts is almost 2.5 times the total private income implied by the surveys, making it exceedingly difficult to make housing affordability calculations. Given the quality and value of housing in Trinidad and Tobago, however, it stands to reason that the household incomes implied by the national accounts better represent the true income distribution in the country. The household income distribution implied by consumption data in the national accounts is presented in table 3. These two tables must be reconciled in some fashion before we can determine levels of housing affordability, and before we can refine the targeting of housing subsidies and loans to low-income households, if we are to base our targeting criteria on household incomes.

Table 2: Household Income Distribution in Trinidad and Tobago, 1997
(Based on Reported Income)

Decile	Annual Household Income (TT\$)		Annual Household Income (US\$)	
	From	To	From	To
1st	\$0	\$2,840	\$0	\$451
2nd	\$2,840	\$5,406	\$451	\$858
3rd	\$5,406	\$9,008	\$858	\$1,430
4th	\$9,008	\$12,723	\$1,430	\$2,020
5th	\$12,723	\$18,982	\$2,020	\$3,013
6th	\$18,982	\$25,797	\$3,013	\$4,095
7th	\$25,797	\$38,383	\$4,095	\$6,093
8th	\$38,383	\$45,549	\$6,093	\$7,230
9th	\$45,549	\$68,879	\$7,230	\$10,933
10th	\$68,879		\$10,933	

Source: Calculated from Annex tables A2, A3 and A4. TT\$6.30 = US\$1.00 in 1997.

Table 3: Household Income Distribution in Trinidad and Tobago, 1997
(Corrected for Under-Reported Income)

Annual Household Income (TT\$)	Annual Household Income (US\$)
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Decile	From	To	From	To
1st	\$0	\$6,986	\$0	\$1,109
2nd	\$6,986	\$13,299	\$1,109	\$2,111
3rd	\$13,299	\$22,160	\$2,111	\$3,518
4th	\$22,160	\$31,299	\$3,518	\$4,969
5th	\$31,299	\$46,696	\$4,969	\$7,412
6th	\$46,696	\$63,461	\$7,412	\$10,074
7th	\$63,461	\$94,422	\$10,074	\$14,989
8th	\$94,422	\$112,051	\$14,989	\$17,786
9th	\$112,051	\$169,442	\$17,786	\$26,895
10th	\$169,442+		\$26,895+	

Source: Calculated from table Annex table A5 and IMF, 2000. TT\$6.30 = US\$1.00 in 1997.

5. *The Financial Sector, Inflation and Housing Finance:* A robust and healthy financial sector, low rates of inflation, and stable foreign exchange rates are essential preconditions for increasing access to housing finance for large segments of the population. Conditions in Trinidad and Tobago, along all these three dimensions are relatively good. The country has a high credit rating, it ranked 55th among 136 countries by *Institutional Investor* in March 2000, and third (after Mexico and Uruguay) among 20 Latin American and Caribbean countries [Institutional Investor, 2000]. Inflation rates have been very low since 1995: 5.3 percent in 1995, 3.3 in 1996 3.7 in 1997, 5.6 in 1998 and 3.4 in 1999. In parallel, exchange rates vis-a-vis the U.S. dollar have been very stable. One U.S. dollar was worth TT\$5.9 in 1995, TT\$6.0 in 1996, TT\$6.3 in 1997–1999, and TT\$6.25 in October 2000. As a result, lending interest rates are relatively low in regional terms, as shown in table 4 below. There are reasons to expect, therefore, that conditions do exist in Trinidad and Tobago for the growth and expansion of private sector housing finance.

Table 4: Interest and Deposit Rates (TT\$, February 2000)

Institution	Loans	Deposits
Commercial Banks	15.4	6.0
Trust and Mortgage Finance	12.9	9.5
Finance Companies and	11.5	10.5
Non Bank Financial	12.2	10.0
Unweighted Average	13.0	9.0

Source: Central Bank of Trinidad and Tobago, www.central-bank.org.tt.

6. *The Role of the Construction Sector in the Economy:* The construction sector in Trinidad and Tobago contributes a surprisingly high percentage of the Growth Domestic Product (GDP) and of total employment. Construction as a percentage of GDP amounted to 9.7% in 1996, 10.8% in 1997, 11.4% in 1998, and 11.5% in 1999, more than double the average of 5.3% in Latin America and the Caribbean in 1997. Moreover, the construction sector has been experiencing rapid growth rates, 14.8% in 1997, 10.2% in 1998 and 8% in 1999. Construction employment averaged 13.7% of total employment in 1995–1997 and now stands at 14% of

total employment. According to a recent trade report, much of the recent growth has been spurned by increases in public sector investment, but “[h]ousing seems the most lively area of private sector activity” [Trinidad and Tobago Exporter, 2000, 2]. The country continues to export construction activity to other Caribbean countries, and unemployment in the construction sector is still substantial: it declined from 40.2% in 1995 to 32.5% in 1997, and formed 32% of the total unemployed in 1995 and 30.2% in 1997. There appears to be sufficient capacity in the construction sector in Trinidad and Tobago for substantial increases in housing construction in the years to come.

7. Activist Fiscal Policies and Housing Subsidies: The new government that came to power in 1995 adopted an open market orientation and several measures of fiscal conservatism. Yet the fiscal deficit stood at 3.1% of GDP by end of 1999. Revenue growth in 1998–1999 amounted to 0.14% while expenditure grew by 9.6%. With the substantial increases in oil prices, a small surplus is expected in 2000. In general, government revenues in Trinidad and Tobago are higher, in relative terms, than in other countries in the region. In 1996, for example, government revenues amounted to 27.7% of GDP, the fourth highest percentage among 25 countries in the region for which data is available [IDB, 2000]. Only Guyana, Jamaica and Barbados had higher percentages, and the average percentage for the region as a whole was 19.5%.

The state is also the principal landowner in the country and it uses its lands actively to support its development objectives. 53 percent of the land in Trinidad and 34 percent of the land in Tobago are in the public domain, and large portions of this land are available for productive use:

In Trinidad, 126,490 hectares or 47 percent of the land in the public domain is under forest cover and, to a degree, protected by law from indiscriminate use (constituted forests). The area under forest in Tobago is 3,930 hectares... The remainder of the land in the public domain (that is, land outside the constituted forests) covers 134,169 hectares in Trinidad and 3,665 hectares in Tobago; it represents a considerable resource available to the state for the promotion of productive activity and tourism and for the generation of income and employment [Stanfield and Singer, vol. 1, 3]

The government of Trinidad and Tobago also has an ambitious public sector investment program (PSIP), which amounted to 9% of revenues in 1998, and increased to some 18% of revenues in 1999. Between 5% and 6% of investment resources were directed at the Ministry of Housing and Settlements during those two years [Ministry of Finance, 1999, iv]. The actual expenditures of the Ministry in FY 1998/1999 amounted to TT\$51.3 million (US\$8.2 million), and revised estimates in FY1999/2000 amounted to TT\$108.0 million (US\$17.3 million), forming approximately 5%–6% of total public investment in these two fiscal years and 0.5% to 1% of total public revenues—not especially high by regional standards. These figures underestimate government allocations of subsidies to the housing sector, however, because, as we shall see below, there are a number of housing subsidies that are not included in government budgets. The estimated expenditures of the Ministry

of Housing and Settlements are planned to increase to TT\$236.7 million (US\$37.9 million) in FY2000/2001, an increase of 119% [Ministry of Housing and Settlements, 2000b, 1], bringing government housing expenditures to an estimated 2% of government revenues. It appears that the Government of Trinidad and Tobago is committed to including a variety of housing subsidies as part of its public investment program in the years to come.

In conclusion, we may note that relatively high household incomes and recent economic growth are likely to increase the demand for housing, as well as the ability to pay for it; that the skewed income distribution in the country will limit the ability of below-median income families to pay for housing; that the demand for housing is likely to be distributed throughout the country, rather than in the highly urbanized areas; that conditions in the fi

nancial sector, as well as low inflation, make it possible to expand the access of households to mortgage finance; that there is excess capacity, as well as sufficient skilled labor and talent, in the private construction sector to meet additional housing demand; and that government collects significant revenues, and continues to contribute a wide range of fiscal resources to subsidize housing. Given this short review of the economic, social and political context of the housing sector, we next examine conditions in the housing sector itself.

II CONDITIONS IN THE HOUSING SECTOR

In general, as we shall see below, conditions in the housing sector in Trinidad and Tobago are not dissimilar to the conditions prevailing in other countries Latin America and the Caribbean, or in other countries at similar levels of economic development. Selected comparative housing indicators are presented in table 5. In the following paragraphs we focus on eight key aspects of housing sector performance in greater detail:

1. the availability of land;
2. conditions in the residential construction sector;
3. the availability of mortgage finance;
4. house prices, rents and affordability;
5. dwelling units and living space;
6. housing quality;
7. housing production; and
8. tenure.

Table 2: Selected Housing Indicators, 1990–1998¹

Indicator	Port of Spain, Trinidad	Panama City, Panama	Guatemala City, Guatemala	Quito, Ecuador	Caracas, Venezuela	Latin America & Caribbean Cities,1990	Upper- Middle Income Countries	The World 1990
Dwelling Units per 1,000 People	248	250	214	239	236	221	225	229
Median House Size (m ²)	70.3	67	38	33.6	78	67	67	62
Floor Area per Person (m ²)	18.1	16	8	8.6	16	15.6	15.9	15.3
Urban Density (persons per km ²)	-	-	6,400	9,200	6,000	5,700	6,600	6,600
Land Registration (%)	-	80	50	55	35	70	100	100
Permanent Structures (%)	91.3	90	87	71.3	89	90	97	97
Water Connection (%)	78	90	88	94.1	90	91	98	95
Journey to Work (minutes)	70	60	45	56	49	56	40	37
Infrastructure Expenditure-to-income Ratio (%)	-	7.2	8.9	9.1	-	4.1	4.9	5.9
Public Housing (%)	4.6	0	0	0	38	10	22	12
Unauthorized Housing (%)	65	15	44	30.0	-	26.4	9	15
Squatter Housing (%)	8.5	12.2	29	7.5	40	25	4	4
Homelessness per 1,000 people	-	<1	3.9	0.6	5.0	2.1	1.1	0.9
Owner Occupancy (%)	67	77	61	79	67.6	65	57	55
The Median House Price (\$)	20,000	27,000	7,742	6,767	29,000	11,818	23,646	20,315
The House Price-to-Income Ratio	6.3 (2.7) ²	1.4	1.6	2.4	5.7	2.4	4.4	5.0
The Rent-to-Income Ratio (%)	25.0(11.4) ²	25.0	22.0	12.5	15.0	19.8	14.6	16.2
Down-Market Penetration	-	0.8	1.2	2.1	6.74	3.9	3.4	3.4
Construction Cost per Square Meter (\$)	180	140	155	171	225	171	203	171
The Housing Credit Portfolio (%)	-	22.8	7 ¹	20.1	<10	20	18	14
The Mortgage-to-Prime Difference (%)	-5.0	2.0	3.0	B20	14	3.2	-0.4	0.2
The Mortgage Arrears Rate (%)	-	<1	5	3	5.8	6	5	5
New Household Formation (%)	1.13	2.55	3.0	4.2	1.56	3.1	2.7	3.1
Housing Production per 1,000 people	4.6	9.4	6.2	9.3	5.8	6.0	6.1	6.5
Residential Mobility (%)	-	-	1.5	3.4	5.6	3.4	4.4	7.1
The Vacancy Rate (%)	5.3	11.4	-	1.6	8.3	4.2	3.8	3.5

1. *The Availability of Land:* As noted earlier, there is no physical shortage of land for urban housing in Trinidad, because large portions of the island are accessible to the Port of Spain metropolitan area. Road access is, however, at a high premium and traffic congestion is high by regional standards. Improvements in the island's road system and the opening of new lands to urbanization by the introduction of new roads can and will do much to increase the amount of land available for housing, as well as maintain and stabilize residential land prices in the years to come. Still, as noted by Pamuk and Dowall, there are serious regulatory constraints that choke the supply of urbanized land by the private sector: there are long delays in establishing clear titles to land and there are cumbersome procedures for obtaining permits for land development—government-approval of land subdivision requires a 7-step process that takes one to two years to accomplish. Thus, in 1993, for example, only three land developers were still active in residential land subdivision. The rest withdrew during the prolonged recession following the collapse of oil prices in the early 1980s. Also, during the 1980–1990 period, only 22 percent of new housing units were in full compliance with regulations, and 65 percent was built “outside the formally sanctioned housing delivery system” [Pamuk and Dowall, 1998, 292–295].

The prices for fully registered and serviced land for the years 1989–1993 are given in table 6 below. In eight land development projects of the Project Execution Unit (PEU) of the Ministry of Housing and Settlements, implemented in 1993–1999, the average raw land cost was TT\$2.10 (US\$0.33) per ft², and the average cost of servicing the land was TT\$7.10 (US\$1.13) per ft² [PEU, 2000, 21], bringing the total cost for developed land to TT\$9.20 (US\$1.50) per ft², somewhat lower than the prices quoted by Pamuk and Dowall for 1993. Land prices in Trinidad and Tobago thus appear to have been relatively stable over the past decade. As Pamuk and Dowall note, they are not likely to remain stable if housing demand builds up against a restrictive regulatory environment that chokes land and housing supply.

Table 6: Nominal Land Prices by Distance from Downtown Port of Spain, 1989–1993
(for fully registered and serviced land)

Distance (kms)	Average Land Price (per ft ²)					
	1989		1993		Annual Change	
	(TT\$)	(US\$)	(TT\$)	(US\$)	(TT\$)	(US\$)
0-5	17.8	2.6	15.7	2.7	-3.1%	0.9%
5-10	14.4	2.1	14.5	2.5	0.2%	4.5%
10-15	12.3	1.8	11.6	2.0	-1.5%	2.7%
15+	12.3	1.8	11.0	1.9	-2.7%	1.4%

Source: Pamuk and Dowall, 1998, table 5, 291.

The price of raw land in publicly-owned and privately-owned squatter settlements is of the order of TT\$1.00/ft², and there are urbanizable raw land plots throughout the market that can be bought for this price. Raw land prices that are suitable for low-income housing fluctuate between TT\$1.00 and TT\$5.00 per ft², and serviced land prices fluctuate between

TT\$6 and TT\$20 per ft². These are typical by global standards, neither too high nor too low. If we take TT\$12 per ft² as a typical serviced land price on the urban fringe, for example, then the serviced land price-to-income ratio³ varies from 0.7% for reported median income to 0.3% for median income corrected for under-reporting. These ratios compare with an average of 0.8% for upper-middle income countries and 0.5% for countries in Latin America and the Caribbean [Angel, 2000, table 14.1, 198]. The 1993 housing study suggests that “[f]ormal sector land development costs are more than three times higher than for the informal sector” [PADCO and Laughlin, 1993a,vii]. There is room, therefore, for reducing land development costs in low-cost subdivisions aimed at low-income families. What does make residential land more expensive in Trinidad and Tobago is the tradition of preferring relatively large residential plots, normally in the region of 4,000–5,000 ft², considerably larger than typical lots in other countries in the region.

2. *Conditions in the Residential Construction Sector:* As noted earlier, there are very few developers building housing estates for middle and low-income families in Trinidad and Tobago. Most cater to high-income families. One developer is currently building apartment complexes in Port of Spain that sell for TT\$1.25–3.75 million (US\$ 200–600,000) per unit, paid in cash without resorting to mortgage lenders. Middle-income housing estates, such as the St. Andrews Park estate outside Chaguanas, sell a 785 ft² (73 m²) house for TT\$198,000 (US\$32,000) and an 1,130 ft² (105 m²) house for TT\$280,500 (US\$45,000). If we assume that the cost of a serviced lot in this estate is of the order of TT\$40,000 (US\$6,400), then the cost of construction (plus profits) amounts to some TT\$200–300 per ft² (US\$350–520 per m²). In the public sector, a typical 576 ft² (54 m²) house constructed by the Project Execution Unit (PEU) cost TT\$60,000 (plus VAT), or TT\$76 per ft² (US\$180 per m²). A one-room core house of 400 ft² (with toilet and bathroom) built by a contractor for the Land Settlements Agency (LSA) at Carlson Gardens outside Chaguanas in 1999 cost TT\$55,000, or TT\$137/ft² (US\$235 per m²). These prices are very high by regional standards: A typical median-priced house costs US\$171 per m² in Latin America and the Caribbean and US\$203 per m² in cities in upper-middle income countries. By contrast, in the informal sector in Trinidad and Tobago, building materials for a 600 ft² (56 m²) house cost approximately TT\$30,000, or TT\$50/ft² (US\$86 per m²). There is room, therefore, for lowering house construction prices in the country, either by increasing the level of self-help and mutual aid in house construction (which is now quite common in squatter settlements), by increasing the efficiency of construction management, or by introducing less expensive building methods and technologies from other countries in the region.

3. *The Availability of Mortgage Finance:* While good data on housing finance exists for the period prior to 1993 [PADCO and Laughlin, 1993d], more recent data could not be obtained at the time of writing. In general, because of the high credit rating, the stability of the financial sector, the low rate of inflation in the country, and effective foreclosure procedures (it takes 3 months to obtain a court order of possession) housing finance is readily available through both private and public channels. In addition, the Home Mortgage Bank (HMB) functions as a secondary-market institution for mortgage loans, as well as a provider of both mortgage loans and construction finance. Its portfolio of mortgage loans amounted to

TT\$630 million (US\$100 million) in 1998 [Home Mortgage Bank, 1998]. The bank has a prime mortgage facility which lends up to 90% of the value of houses up to a maximum amount of TT\$550,000 at 11% per annum, with no upper limit on income. In addition, four Approved Mortgage Companies (AMCs), as well as the Trinidad and Tobago Mortgage Finance Company (TTMF), a public-sector institution, lend for housing at subsidized interest rates: 8% per annum for homes priced below TT\$150,000, 8.5% for homes priced between TT\$150,000 and 200,000, and 9% per annum for homes priced between TT\$200,000 and 250,000. Trust and mortgage finance companies now lend at average market rates of 13% per annum. There is thus an implicit subsidy of 4–5% in mortgage loans of the Approved Mortgage Companies (AMCs). This subsidy is deducted from their annual tax obligations, and it was estimated that the tax liabilities of banks that own AMCs may have been reduced to 15% of their total liabilities⁴. TTMF obtains its funds by issuing tax-free bonds. At present, interest-rate subsidies enjoy broad public support and are likely to continue in the near future despite their serious drawbacks.

4. House Prices, Rents and Affordability: There is no data available on median house prices or rents. Preliminary observations suggest that the median house price in the Port of Spain Metropolitan area is of the order of TT\$125,000 (including land). If the median household income is indeed of the order of TT\$20,000, then the house price-to-income ratio is 6.3, implying that houses are now very expensive in comparative terms. If however, undeclared income is taken into account then median household income is of the order of TT\$46,700, and the house price-to-income ratio is 2.7, a ratio more in line with other countries in Latin America and the Caribbean region. Houses in established squatter settlements, such as the Alexis Street community outside Port of Spain, command relatively high values, of the order of TT\$80,000–200,000.

The rental sector in Trinidad and Tobago continues to shrink, and yet rents appear to be relatively stable. A study of rents in 1993 [PADCO and Laughlin, 1993f] noted that the Rent Restriction Act of 1981 placed an upper ceiling of TT\$1,000 per month on rents, and found 96% of rents to be below that upper limit. The survey also found very little change in rents over time, even though the time span of surveyed tenancies was more than 6 years [23]. The median monthly rent in the country in 1993 amounted to TT\$375/month (US\$65/month). If we assume that the reported median annual household income was of the order of TT\$18,000 in 1993, then the rent-to-income ratio was of the order of 25%. Corrected for under-reporting [PADCO and Laughlin, 1993d, table 1.8, 14], the ratio would fall to 11.4%. These ratios compare to 19.8% for Latin America and the Caribbean as a whole, and 14.6% for other upper-middle income countries.

5. Dwelling Units and Living Space: According to the 1990 Census, the number of dwelling units per 1,000 persons in Trinidad and Tobago is relatively high, 248 units compared to 221 units for Latin America and the Caribbean as a whole, and 225 in other upper-middle income countries. The Census data also shows a relatively high vacancy rate, 5.6%, compared to 4.2% in Latin America and the Caribbean as a whole and 3.8% in other upper-middle income countries. The total number of dwelling units in 1990, 316,320, exceeded the

number of households by 5%, but there were 1.04 households per *occupied* dwelling unit. This suggests that some 8% of the households shared a dwelling unit, and that some 12,000 new units would need to be built over time to eliminate the doubling up of households.

The 1990 Census contained data on the number of persons per room, but there were no available figures for floor area per person or for the median house size. The average number of rooms per dwelling unit for the country as a whole was found to be 3.1, and, given a household size of 4.09, this corresponds to 1.33 persons per room. Gross estimates of the floor area per person, 16.4 m², and of the median house size, 67m², for the country as a whole were obtained by correlating persons per room and floor area per person for a sample of 53 countries [Angel, 2000b, table A22, 369]. The correlation coefficient was found to be 0.48. The average number of rooms in the East-West Corridor was found to be 3.4, the floor area per person was found to be 18.1m², and the median house size was found to be 70.3m². These numbers are equivalent to median values for Latin America and the Caribbean, and to median values in other upper-middle income countries. The numbers suggest that, in general, there is no shortage of dwelling units and no observable overcrowding.

6. *Housing Quality*: Housing quality in Trinidad and Tobago is also relatively high, but residential amenities are inadequate. The 1990 Census suggests that as many as 91.3% of the housing stock is in permanent structures, built to last 20 or more years. As many as 78% of the units had piped water connection into the dwelling or yard. Some 56% had water-closet type toilets and of those, only 38% were connected to the sewer system. An additional 41% had pit latrines. These numbers suggest that housing subsidies should focus on infrastructure improvements in existing settlements and on new home construction, and, to a lesser extent, on the improvement and expansion of existing houses.

7. *Housing Production*: Most formal-sector house building in Trinidad and Tobago is carried out by small contractors on individually-owned plots. The 1993 housing study found only three developers with a total production volume of some 350 units per year [PADCO and Laughlin, 1993a, iii]. This study suggested that net additions to the housing stock during 1980–1990 period amounted to some 4,000 units per year [27]. Gross housing production during that period was of the order of some 8,000 units, or 7.7 units per 1,000 persons. This rate is relatively high in comparative terms, and rather surprising given the slow rate of household formation noted earlier. Although no accurate figures are available for 1990B 2000, we estimate that current production rates in both the formal and informal sector do not exceed 6,000 units per year, or 4.6 units per 1,000 people. We should note here that most residential construction in 1993 took place outside the formal sector: only 22% of new construction was formally approved, 13% was in unauthorized land developments on public and private lands, and 65% was built without the necessary permits [figure 3.1, 25].

8. *Tenure*: Home ownership has been on the increase in Trinidad and Tobago, in line with the shrinking of the rental market noted earlier. The rate of home ownership increased from 65 percent in 1980 to 74 percent in 1990. The percentage of home ownership in the Port of Spain metropolitan area was 67 percent, in line with regional standards. 13% of

households in the country rented apartments and houses in the private market, 2.5% rented apartments from the National Housing Authority, and 8.1% lived rent free [Central Statistical Office, 1994a, table 1.3, 102]. Land ownership, on the other hand, presents a more complicated picture: According to the 1990 Census, 38.2% of all dwelling units were built on owned land, 39.3% on rented or leased land, 11.8% on land free of rent, 7.2% on squatted land, and 3.5% under the categories of 'Other' or 'Not stated'" [PADCO and Laughlin, 1993f, ii]. There were 19,526 squatter households at that time [Central Statistical Office, 1994a, table 14, 113]. The Land Settlement Agency (LSA) estimates the number in the year 2000 to be much higher – 25,000 squatter households on public lands and 25,000 on private lands. But there are no accurate figures available, and there is a need to obtain more accurate figures, possibly using an aerial survey combined with field investigations, prior to launching on a comprehensive squatter improvement program. It is also important to know whether squatting and informal and subdivision are continuing at present, and where they are taking place.

In conclusion, we note that housing conditions in Trinidad and Tobago are generally at par with other countries in Latin America and the Caribbean, as well as with other upper-middle income countries. There is no shortage of dwelling units and no overcrowding. The quality of housing is relatively high, although residential amenities need to be improved. Serviced residential land by the private sector appears to be in short supply, although land for residential construction appears to be plentiful and land prices are stable. Mortgage finance is generally available for low-cost and middle-cost housing at subsidized interest rates. Construction costs are quite high by regional standards, and housing production is generally undertaken by small contractors on individually-owned plots of land. Given this overview of conditions in the housing sector, we can now focus on the status of housing policy.

III THE STATUS OF HOUSING POLICY

There is no official statement of housing policy in Trinidad and Tobago, nor is there a specific institution charged with formulating, implementing and overseeing national housing policy: the public institution charged with housing responsibilities, the Ministry of Housing and Settlements, contains a number of administrative units that engage in specific public housing tasks – from the preparation of serviced sites, to the provision of housing loans, to the regularization of squatter settlements, and to the construction of rental flats. But there is no unit within the Ministry charged with overseeing the housing sector as a whole, for coordinating housing actions with other stakeholders in the sector – lending institutions, construction firms, civic organizations, or dweller organizations – or with generating regular data on the housing sector that can assist the Minister in formulating housing policy.

Modern housing policy entails a transformation of government intervention in the housing sector from the direct supply of dwelling units and housing loans to an enabler and facilitator of housing action [see for example, World Bank, 1993]. This transformation is only gradually taking place in Trinidad and Tobago. The National Housing Authority, as part of the Ministry, is only now retreating from the construction of apartment units. It still has a substantial mortgage portfolio of some 18,000 loans. The Project Execution Unit (PEU), another part of the Ministry, is still engaged in the direct provision of serviced sites as well as in house construction. The Trinidad and Tobago Mortgage Finance Company (TTMF), yet another part of the Ministry, is still lending for housing at subsidized interest rates, competing (at somewhat of a disadvantage) with the private sector. And the Land Settlement Agency (LSA), another part of the Ministry, is directly involved in the provision of serviced sites and core houses, as well as directly engaged in upgrading infrastructure and in the provision of land documents (“certificates of comfort”) in squatter settlements on public lands. Much of this work needs to be done through intermediaries, with the various agencies in the Ministry providing guidance and oversight, a regulatory framework, and targeted subsidies, while refraining from direct engagement with individual households, if the Ministry is to work “at scale” to meet quantitative targets in the years to come.

The development of an enabling housing policy for Trinidad and Tobago will involve action on six key components of modern housing policy:

1. the property rights regime;
2. the housing finance regime;
3. housing subsidies;
4. residential infrastructure;
5. the regulatory regime; and
6. the institutional framework.

1. *The Property Rights Regime:* As mentioned earlier, the property rights regime in Trinidad and Tobago is a serious obstacle to increasing housing supply, a constraint on obtaining construction loans and mortgage finance, and a main cause for the proliferation of informal land subdivisions and squatter settlements:

Currently, three land titling systems exist in Trinidad and Tobago (Wylie, 1986) which make land transfers costly and complex. Two of the ‘official’ systems for private-sector participants to record interests and transactions are the Title Registration System (under the Real Property Ordinance or RPO of 1950) and the Common Law Deed Registration System. State owned lands, which constitute 52 percent of all land holdings nationwide, are treated separately. In other words, state lands need not be registered in either of the other two systems. About 85 percent of privately owned parcels are registered in the common law deed registration system while the remaining 15 percent of these parcels are under the RPO [Pamuk and Dowall, 1998, 293–294].

Title validation under these systems is cumbersome, time-consuming and costly, both in securing land for private developments, in the vesting of public lands on which housing estates have been built with the National Housing Authority (NHA), and in the provision of titles in the squatter regularization programs of the Land Settlement Agency (LSA). Many landowners are frustrated in their attempts to register their land claims—as many as 6 percent of households surveyed in 1993, for example, described their land tenure situation as “undivided inheritance” [294]. Similarly, there is no updated inventory of public lands with complete documentation as to their location, boundaries, and market value. Hence it is impossible to determine where they may be public lands which are suitable for public-assisted housing projects.

The overall result is a dysfunctional land market, constrained by difficulties in buying and selling land, and restricting both productive and housing investment because of a sense of tenure insecurity. A study of land holdings in 1991 determined that only 40.2% of agricultural land holdings and 52.9% of residential plots had up-to-date deeds or leases. Although 55% of agricultural land holders were not concerned about the absence of proper documentation, they did express serious concerns about their ability to sell their land, rent it out, use it as collateral, will it to their heirs, or use it for agriculture or building: “The responses indicate that in the perceptions of land users, their rights to land are limited, especially in terms of their access to the land market” [Stanfield and Singer, 1993, vol. 1, 14–16]. There is no doubt that better documentation and registration of deeds and leases will improve tenure security, increasing investments in housing and activating the land market. The passage of the Registration of Titles to Land (No. 2) Bill in 1999 is aimed at overcoming these difficulties: “The main purpose of the Bill is to provide a modern system for the registration of title to every parcel of land and to create a single system of land registration” [Republic of Trinidad and Tobago, 1999, 2].

The passage of the Land Settlement Act of 1998⁵ created the Land Settlement Agency and charged it with the regularization of property rights in squatter settlements and tenancies on public lands: “An Act to protect certain squatters from ejectment from State land; to facilitate the acquisition of leasehold titles by both squatters and tenants in designated areas and to provide for the establishment of land settlement areas” [Republic of Trinidad and Tobago, 1998, 211]. The law designated 251 squatter settlements on public lands (with an unknown number of households) as land settlement areas. It also empowered the Land Settlements agency to evict new squatters, to resettle squatters from some areas, and to create new serviced sites. The Agency started operating in 1999, and has since engaged in some upgrading, some eviction and some resettlement. Caroni (1975) Ltd. owns some 20 squatter sites and has its own regularization program, refusing to hand over sites to the Land Settlement Agency (LSA). Finally, there is, at present, no legal mechanism for the regularization of squatter settlements on private lands, where an estimated one-half of the squatter population resides.

2. *The Housing Finance Regime:* As noted earlier, the housing finance regime in Trinidad and Tobago is highly developed, benefiting from the country’s low inflation rate and mature

financial sector. Housing finance is available from commercial banks, through their trust companies, as well as from public sources, notably the Trinidad and Tobago Mortgage Finance Company (TTMF) and the Sugar Industry Labor Welfare Committee (SILWC). The Home Mortgage Bank (HMB) acts a second-tier institution for securitizing mortgages. As noted earlier, commercial banks, the HMB, and the TTMF issue loans at subsidized interest rates (8-9%) for houses costing less than TT\$250,000. The SILWC issues loans at 5% interest. The Project Execution Unit (PEU) in the Ministry of Housing and Settlements uses the TTMF to finance the houses it builds for its beneficiaries in the IDB-supported housing program. From 1995 to 1999 the TTMF financed the construction of some 1,951 of PEU-built houses at a total cost of TT\$166 million (US\$26 million) – an average loan of TT\$85,200 (US\$13,500) per house [PEU, 2000, 16]. While no data was available at the time of writing, it is quite possible that the private sector does not go as far down market as the TTMF in issuing mortgage loans, and, if this is true, it should be a cause for concern. Secondly, there is no data available on the size and distribution of the interest-rate subsidies involved in mortgage lending: how large is their annual volume, who are their beneficiaries, what is the level of subsidy per loan, and what is the ceiling on the issuance of more subsidies, given the limited tax liability of the banking system? These questions may need to be answered if housing finance institutions are to play their designated role in promoting housing construction effectively in the years to come.

3. *The Housing Subsidies Regime*: Unfortunately, comprehensive recent data on the volume, type and targeting of housing subsidies could not be obtained at the time of writing. However, the study of subsidies and pricing policies conducted by PADCO and Laughlin in 1993 stands out as one of the best studies of its kind ever carried out [PADCO and Laughlin, 1993c]. This study identified ten types of subsidies and attempted to estimate their annual cost:

- (1) below-market rent of National Housing Authority Apartments: the NHA owned some 6,800 apartment units by 1993. Rents collected were estimated at 17% of economic rents and 35% of the estimated cost of an appropriate level of maintenance;
- (2) below-market rent of private-sector rental housing subject to rent control: it was estimated that 35,000 housing units were subject to some rent control in 1990;
- (3) loans at subsidized interest rates by the National Housing Authority (NHA): an estimated 12, 400 loans were granted by the NHA at 3-5% below market interest rates and some 400 soft loans at 2-3% interest;
- (4) loans at subsidized interest rates by the Sugar Industry Labor Welfare Committee (SILWC): some 1,800 loans at 1% interest rate were provided to sugar workers for the purchase of serviced lots and some 800 loans at 3% were provided for housing;
- (5) land, financing, administration and construction cost subsidies in public housing construction programs: During the 1980s the government constructed some 20,000 housing units that were sold to beneficiaries below their real costs;

- (6) Land and infrastructure subsidies in the serviced sites program of the Project Execution Unit (PEU): the PEU has developed some 2,500 serviced sites during 1993–1999, which are sold at subsidized prices to beneficiaries;
- (7) Subsidies in the squatter regularization program: public land was leased at a proposed cost of TT\$0.25 per ft², and infrastructure costs were only partially recovered through monthly payments of TT\$20–50 per month;
- (8) Loans at subsidized interest rates by the Trinidad and Tobago Mortgage Finance Company (TTMF): TTMF lent at 8%, where market rates were of the order of 12.5%;
- (9) Loans at subsidized interest rates by Approved Mortgage Companies (AMCs): loans by the AMCs averaged 6 percentage points below market rates; and
- (10) Deduction of mortgage interest and house repair expenditures from income tax, and various other housing allowances.

The estimated total annual subsidy (including revenue forgone by government) in these ten categories amounted to TT\$287 million (US\$49 million) in 1993, and comprised 1.17% of the Gross Domestic Product (GDP) at that time. In addition, there were loans arrears (also a form of subsidy) amounting to some TT\$103 million (US\$18 million) [PADCO and Laughlin, 1993c, 23–42]. Unfortunately, information on the targeting of these subsidies is not available. There were concerns, however, that the subsidized loans of the TTMF were issued mainly for higher-income households [40]. It is also quite clear, as we shall see later, that because of lax income criteria the PEU sites were targeted to middle and high-income families as well.

Many of these subsidies still exist. But the National Housing Authority (NHA) no longer builds rental housing, and its latest apartments are to be sold at market or near-market prices. It no longer provides subsidized loans, but still carries a portfolio of some 18,000 loans, many of which are in serious arrears. It also still owns some 6,000 rental units that now involve considerable expenditures in maintenance and repair, and place a serious burden on the government's housing budget, as we shall see below. And it still employs some 1,000 persons.

Beyond the targeting issue, two important issues in the allocation of housing subsidies in Trinidad and Tobago merit further study – the issue of scale and the issue of leverage. In other words, are the subsidies helping a significant portion of the needy population or are they assisting the fortunate few? And, how many dollars of additional resources (whether of dwellers, builders or lending agencies) are mobilized by one dollar of housing subsidy? As noted earlier, some 6,000 new units are added to the housing stock every year and some 50,000 squatter housing units require regularization and improved infrastructure. While no exact data was available at the time of writing, it appears that current subsidy programs helped build less than 600 new units per year and upgrade less than 600 squatter houses per year. The scale of subsidy programs needs to be upgraded to have any impact on new

construction and to significantly reduce new squatting, as well as to have a significant impact on the improvement of the squatter housing stock.

The development program of the Ministry of Housing and Settlements, which encompasses most of the transparent housing subsidies (excluding fiscal measures, subsidized rents, and subsidized interest rates in the banking system) is shown in table 7 below.

Table 7: Development Program of the Ministry of Housing and Settlements, 1998–2001

Item	1998/1999		1999/2000		2000/2001	
	Actual Expenditures TT\$ mil.	%	Revised Estimates TT\$ mil.	%	Initial Estimates TT\$ mil.	%
Land Acquisition	7.0	13.7	8.0	7.4	26.1	11.0
Sites-and-Services Development	5.4	10.5	25.3	23.4	24.5	10.4
Squatter Regularization	1.8	3.5	8.1	7.5	70.5	29.8
Shelter Construction Financing	16.3	31.8	38.0	35.2	44.4	18.7
NHA New Flats and Townhouses	2.8	5.5	1.0	0.9	7.8	3.3
NHA Housing Estates Maintenance	4.0	7.8	8.9	8.2	21.8	9.2
Urban Development Corp. Financing	4.2	8.2	-	-	3.3	1.4
Administration, Studies, Overhead	9.8	19.1	18.8	17.4	38.3	16.2
Total	51.3	100.0	108.0	100.0	236.7	100.0

Source: Ministry of Housing and Settlements, 2000, Development Programme Estimates. TT\$6.25 = US\$1.00 in mid-2000.

The actual expenditures for Fiscal Year 1998/1999 amounted to TT\$51.3 million, 0.14% of Gross Domestic Product of 1998 [IMF, 2000, 766]. Program expenditures are expected to double in 1999/2000 and to double again in 2000/2001, bringing housing subsidies to some 0.5–0.6% of GDP. The program envisions a major increase in expenditure for land acquisition and for squatter regularization. It maintains a high level of expenditure for sites-and-services development. And it continues to allocate substantial funds for the maintenance of NHA housing estates. Given the continued need for maintenance, the actual economic value of the NHA rental flats is now negative, and they should be sold (or given away free) to tenants to eliminate the need to continue to subsidize them. The development program also continues to provide subsidized housing finance through the Trinidad and Tobago Mortgage Finance Corporation (TTMF). Although the latter is not really a subsidy, it continues to absorb government funds which could be allocated for subsidies if the TTMF were to raise the necessary funds by floating tax-free bonds as it has done in the past. Unfortunately, data on the annual income of the Ministry from sales, rentals and loan repayments were not available at the time of writing, making it difficult to assess the Ministry's subsidy program in greater detail.

4. *Residential Infrastructure*: Given our earlier observation that Trinidad is gradually being transformed into an urban island, we note that the number of roads leading in and out of the major cities is now inadequate. This has the unfortunate effect of lengthening commuting times, now at 70 minutes, as well as limiting the amount of land that can be

developed for urban and residential uses. A continuous supply of affordable urban land requires a continuous effort to extend the island's primary road network into new development areas that can then be urbanized by the formal (and informal) private sector. Preliminary observations suggest that economic returns to macro-block development may be substantial, and clearly sufficient to recover investments in infrastructure and public facilities. This may be accomplished through land assembly and readjustment [see, for example, Archer, 1999], a process that can be carried out in public-private partnership under the leadership of the Urban Development Corporation in the Ministry of Housing and Settlements. Archer [122] and others [see also Durand Lasserre, 1999, 140] suggest, however, that there is little reason to expect that the supply of land for low-income housing would be increased through macro-block development. The generally-high level of services in such developments usually makes them inaccessible to poor families.

5. *The Regulatory Regime:* There is no doubt that the first IDB-supported housing program, for example, was hampered by very serious delays, occasioned by the need for a variety of approvals from a variety of agencies, as well as by difficulties in obtaining land for projects. The Sou Sou Lands experience, to be discussed in greater detail below, could not be replicated in an environment of strict planning regulations that failed to heed the needs of the poor and lead to increase costs of both raw land and infrastructure. The recent consolidation of the planning and housing functions of the government of Trinidad and Tobago in one single ministry — the Ministry of Housing and Settlements — should pave the way to regulatory reforms that would facilitate the provision of the large number of serviced sites envisioned in the program in the time allotted without undue delay. But not if the main thrust of the planning agency will be on increased compliance, rather than on a realistic approach to planning standards and a streamlined and simplified approval process. Unless both aspects are given full and immediate attention, both the new planning system and the future housing program of the Ministry are likely to fail miserably. In fact, both aspects are so critical to the success of the proposed IDB-assisted housing program that they should be considered as necessary preconditions for the approval of new Government budgets as well as new Inter-American Development Bank (IDB) loans.

6. *The Institutional Framework:* The Ministry of Housing and Settlements now hosts nine departments that are involved in housing and settlements development:

1. the Interim National Physical Planning Commission;
2. the Town and Country Planning Division;
3. the Advisory Town Planning Panel;
4. the Urban Development Corporation of Trinidad and Tobago;
5. the Lands and Surveys Division;
6. the Land Settlements Agency;
7. the National Housing Authority;
8. the Sugar Industry Labor Welfare Committee; and
9. the Project Execution Unit.

Of these, the first four can be said to engage in urban and regional planning and development, the fifth – the Lands and Surveys Division – is engaged in the management of public lands, and the last four are engaged in housing. In general, the Ministry in its present state has dual roles, which at times may be conflicting roles. As its Draft Strategic Plan states, it is oriented towards physical planning on the one hand, and the creation of sustainable settlements on the other: “Vision: To be a modern organization providing quality service in National Physical Planning and Sustainable Development” [Ministry of Housing and Settlements, 2000, iv]. This dual role compromises the ability of the Ministry to lead the housing sector, and to formulate and implement a national housing policy. Both are necessary for the development of a robust and active housing sector.

In conclusion, we note that housing policy in Trinidad and Tobago is now at an important juncture. First, the housing program of the Ministry of Housing and Settlements still contains numerous components of direct involvement in the provision and financing of housing. These need to be rethought if future housing policy is to be more enabling and less interventionist, if it is to operate at a sufficiently large scale, and if it is to be targeted more precisely at low-income households. Second, squatter regularization is now entering a critical stage, where it needs to be done at a sufficient scale, and where it will need to incorporate a mechanism for upgrading squatter settlements on private lands. Third, housing finance will need to be targeted more precisely at low-income households. Fourth, the housing subsidy system will need to be examined in greater detail with an eye to a fundamental reform of the system in the coming decade, ridding the public sector from unnecessary subsidy burdens, targeting subsidies more directly at low-income households, and leveraging more resources per subsidy dollar. Fifth, the regulatory regime (as well as the property rights regime) governing the housing sector must be made simplified, more realistic, more flexible, and more streamlined. And sixth, the institutional structure governing the housing sector must be reformed in a way that makes it possible for the government to focus more acutely on the housing sector as a whole, as well as to formulate and implement a national housing policy.

The next section outlines a national settlement program that can effectively meet these challenges. The specific elements of the program, now under discussion between the Ministry and the Inter-American Development Bank (IDB), have been patterned after the recent experiences of the Ministry in providing serviced sites and in squatter upgrading, and modified given recent experiences gained by the IDB in other countries in the region.

IV THE NATIONAL SETTLEMENT PROGRAM²

² As noted earlier, the recommendations contained in the section are those of the author, and do not represent the official position of the Inter-American Development Bank (IDB).

Despite relatively high household incomes, a developed construction sector, an active housing finance sector, good infrastructure services, and continued government intervention in the housing sector in Trinidad and Tobago, the low-income population still resorts to squatting on public and private lands to meet basic housing needs. The residential land and housing market does not supply affordable building plots and basic core houses. And while the stated goals of all subsidy programs are to meet the needs of the low-income population, a diverse set of substantial housing subsidies—often amounting to some TT\$250 million (US\$40 million) annually—has failed to reach low-income groups.

With the creation of the Land Settlement Agency (LSA) in the Ministry of Housing and Settlements in 1998, and with the present negotiations between the Republic of Trinidad and Tobago and the Inter-American Development Bank (IDB) for a second housing sector loan, a new window of opportunity has opened up for the creation of a national land settlement program that can reorient government housing priorities toward the low-income population, and, in the process, bring about a major reform of government housing policy.

The proposed National Settlements Program (NSP) is a comprehensive program of public intervention in the housing sector, based on gradually moving the government away from the role of direction provision and financing of housing to that of enabling other stakeholders to build and finance housing. It positions the government in general, and the Ministry of Housing and Settlements in particular, in the role of setting limits and providing support to a variety of intermediaries, while relinquishing control over the entire housing process. The various elements of the program are discussed in greater detail below:

The overall design of the program:

1. program objectives;
2. the quantitative goals of the program;
3. the targeting of program subsidies;
4. the subsidy + loan package;
5. program components and budget requirements;
6. postponing housing finance reforms;
7. the provision of serviced sites through three types of intermediaries; and
8. hire-purchase agreements.

The private sector window:

1. the cost of serviced sites;
2. periodic payments and affordability;
3. the reinvestment of the proceeds of loan repayments;
4. the development of squatters on private lands;
5. the participation of private-sector developers; and
6. the core house program.

The civic sector window:

1. civic sector development of new sites; and
2. civic sector upgrading of squatter settlements.

The public sector window:

1. public sector land development; and
2. public sector squatter upgrading.

Institutional Reform:

1. the national housing council;
2. the housing intelligence unit;
3. the management of the second-stage program; and
4. the future of the national housing authority.

The Overall Structure of the Program

1. *Program Objectives:* The proposed program is aimed at meeting eight important objectives that earlier programs have not been able to meet:

- a. eliminating squatting by bringing the annual production of affordable serviced sites to scale;
- b. targeting all new housing subsidies to households with below-median incomes;
- c. creating a set of powerful competitive incentives by implementing the program through three parallel windows: a public-sector window, a private-sector window and a civic-sector window;
- d. injecting an equal amount of resources into the production of new serviced sites, the improvement of infrastructure existing settlements, and the construction of core houses;
- e. initiating the improvement of squatter settlements on private, rather than public lands, where the other half of the squatter population is said to reside;
- f. streamlining and industrializing the provision of low-cost core houses on individually-owned and leased plots;
- g. reforming planning and building regulations to facilitate low-cost progressive land development;
- h. creating and empowering a National Housing Council (NHC) in the Ministry of Housing and Settlements as a forum for the formulation, implementation and oversight of national housing policy;

2. *The Quantitative Goals of the Program:* The program aims at the delivery of three main products: (a) 15,000 new building sites throughout the islands of Trinidad and Tobago over a period of five years (3,000 per year), providing one-half (7,500 or 1,500 per year) of the households qualifying for these sites with a subsidy+loan, while dispensing of the other half of the sites at market prices; (b) improvement of infrastructure and the provision of secure land tenure for 15,000 households in existing squatter settlements on both public and private lands (3,000 per year), where all of the households in the communities to be improved will be provided with subsidies and loans; and (c) the construction of 7,500 core

houses (1,500 per year) on individually owned or leased lands. The estimated value of the subsidy+loan package in each one of these program components is TT\$20,000 (US\$3,200). Given that the annual demand for new housing (including replacement) is of the order of 6,000 units, the program will provide up to 50% of the required new building sites, and practically all the building sites required by low – income families. This should lead to a significant reduction, if not the elimination, of future squatting.

In comparison to these quantitative goals, it should be noted here that in the first IDB-supported housing program, the Project Execution Unit (PEU) delivered an estimated 4,200 serviced sites over a period of 10 years, at an estimated average cost of TT\$39,300 per site (TT\$8,800 for raw land and TT\$30,500 for development), of which 2,454 were occupied as of July, 2000 [PEU, 2000, 10, 21 and 25]. This amounts to an average of 420 subsidized serviced sites per annum. In contrast, IDB-supported serviced lot program in Guatemala delivered a total of 111 projects with 59,207 serviced lots (of which only 37,526, or 63%, were subsidized) in a two-year period 1997–1999 [Angel, 2000a, 27]. Given the experience gained by the PEU in recent years, as well as the accumulated experience of the civic sector and the private sector in land subdivision and development, the quantitative goals of the National Settlements Program in Trinidad and Tobago should therefore be perceived as realistic and attainable.

Finally, the PEU also helped construct a total of 2,454 houses. Of these, 1965 houses were built by the PEU, with construction finance from the Trinidad and Tobago Mortgage Finance Company (TTMF) amounting to some TT\$175 million (TT\$28 million). The average cost (and the median cost) of these houses was TT\$89,000 (US\$14,250), and their average and median sizes were of the order of 850 square feet [PEU, 2000, 11]. These were clearly not core houses. They were middle-cost houses targeted at middle-income families.

3. *The Targeting of Program Subsidies:* To qualify for the program, the household needs to apply to the Land Settlements Agency (LSA). As of now, the Agency has solicited more than 20,000 applications for serviced sites and core houses. More applications will be sought, and the program will be advertised widely. The applications will be screened by a special non-government organization – the Targeting Group (TG) – contracted expressly for the purpose of screening applications and preparing families with approved applications for participation in the program. The Targeting group will ensure that all participating families earn below-median reported incomes, and that at least 30% of participating families are in the first three deciles (lowest 30%) of the income distribution in the country. In 1997 terms (see annex) this implies that all participating families entitled to subsidies and loans shall have reported annual household incomes less than or equal to TT\$20,000 (not TT\$18,500 *per capita* incomes, as in the first IDB-supported program), and that, of those, at least 30% of the households will have reported annual household incomes less than or equal to TT\$9,300. If the decisions of the Targeting Group are disputed, a Targeting Tribunal shall be set up to settle such disputes.

It should be noted here that the first IDB-supported housing program had income targeting criteria that included at least 95% of the eligible population, and was therefore not

targeted to low-income families at all. The maximum reported annual per capita income for inclusion in the program was set at TT\$18,500 [PEU, 2000, 4]. As Table A5 in the Annex shows, 90% of the households in Trinidad and Tobago has reported annual incomes of less than TT\$68,000. Since household size in the country was reported to be 4.09 in the census of 1990 [Central Statistical Office, 1994a, 4], any family with a reported annual income of less than TT\$75,665 in 1997 qualified for the program. It is no surprise, therefore, that in the PEU's La Paille project, for example, there are several two-story houses with two-car garages, currently valued at TT\$400,000–500,000.

It must be noted, however, that there are great disparities in Trinidad and Tobago between reported household income and private consumption, suggesting that household incomes corrected for under-reporting may be as much as 2.5 times reported household incomes [see Annex]. This poses a very serious challenge to any attempt to target serviced lots or core houses based on reported incomes, and new methods must be employed to make targeting a reliable and feasible exercise.

4. *The subsidy+loan package:* Each participating household in all three programs—the serviced-sites program, the squatter improvement program, and the core house program—will be entitled to receive a one-time up-front subsidy+loan, both together amounting to TT\$20,000 (US\$3,200). This compares with an average subsidy of TT\$17,925 (US\$2,900) given to recipients of serviced sites by the Project Execution Unit (PEU) during 1995–2000. The loan will be structured so that it amounts to 25% of reported monthly income (no less and no more), and the balance will be given as subsidy. The maximum subsidy will amount to TT\$20,000. The minimum monthly payment required to participate in the program will be TT\$100 per month for improved lots, serviced lots or core houses costing not more than TT\$25,000, corresponding to an annual reported household income of TT\$5,000 and allowing households in the first decile of the income distribution to participate in the program. The maximum monthly payment will be TT\$400, allowing median-income families to participate in the program. The loan will be provided at 8% interest rate, and will be repayable in five years.

5. *Program Components and Budget Requirements:* The investment component of the program amounts to a total of TT\$690 million over five years, structured as follows:

a. 30,000 subsidy+loan packages at TT\$20,000 each	TT\$600 million
b. 30,000 administration fees at TT\$2,000 per package	TT\$ 60 million
c. Bridging finance	TT\$ 75 million
d. Housing Intelligence Unit	<u>TT\$ 15 million</u>
Total investment cost	TT\$750 million
Government of Trinidad and Tobago Contribution (25%)	TT\$188 million
Inter-American Development Bank contribution (75%)	TT\$562 million (US\$90.0 million)

This compares with an IDB-supported investment component of US\$60.8 in the first IDB-assisted housing sector loan (584/OC-TT), and a proposed five-year second-phase program of US\$100 million, including a possible IDB loan of US\$80 million [IDB Identification Mission, 2000]. The program is, in essence, a national settlement program with an emphasis on providing land for housing and core housing, and with an acute focus on low-income households.

6. *Postponing housing finance reforms:* The program does not allocate subsidy resources for the construction of completed houses, and assumes instead that families who wish to construct completed houses on their sites or purchase completed houses produced by the private sector will apply for mortgage loans at the preferred interest rates of 8% which are presently available, both from the Trinidad and Tobago Mortgage Finance Company (TTMF) and from private sector financial institutions—commercial banks or trust and mortgage finance companies that are Approved Mortgage Companies (AMCs). Market mortgage interest rates are now of the order of 13% per annum, and there is, therefore, an implicit mortgage subsidy of 5 percentage points. On a typical loan given for a 20-year period, this would amount to a substantial subsidy of 29% on each monthly payment. This subsidy will then be deducted from the corporate taxes of banks and finance companies in the AMC program. While up-front subsidies are generally preferred to interest rate subsidies, and while interest rate subsidies that deduct a fixed number of points (say, 5 points) from the market interest rate rather than fixing the subsidized rate at a given percentage (say, 8%) are to be preferred—because they are both more transparent and because they limit the risk to the public sector from interest rate fluctuations—it is assumed that interest rate subsidies will not be modified or eliminated in Trinidad and Tobago in the near future.

7. *The Provision of Serviced Sites Through Three Types of Intermediaries:* It is envisioned that land loans will not be provided directly to the household, but rather to the intermediary agent implementing the program on a specific project site on behalf of the qualified households participating in the project. Still, households will be responsible for selecting the project they wish to qualify for from a variety of projects with different qualities, at different locations, implemented by a variety of different suppliers in the public, private and civic sector. Subsidies and loans will thus be true demand-side subsidies, rather than supply-side subsidies (where suppliers of plots or financial institutions select program beneficiaries, as in the IDB-supported Guatemala housing program, for example [see Angel, 2000a]) masquerading as demand-side subsidies.

Three kinds of intermediaries will participate in the actual implementation of the program on specific project sites: (a) land owners or land developers through the private-sector window; (b) community-based organizations (CBOs) or non-government organizations (NGOs) through the civic-sector window; and (c) the Settlement Upgrading Unit (SUU) of the Land Settlement Agency (LSA) and the Project Execution Unit (PEU) of the Ministry of Housing and Settlements through the public-sector window. The Land Settlement Agency will employ competent core personnel to manage and administer

activities in each of the three windows. Each window will seek to elicit competitive bids for participating in the program, and evaluate bids in a professional manner as to their merits as well as their costs before selecting the best proposal. Each window will compete with the other two windows in completing 2,000 subsidized housing solutions per year and generating 1,000 serviced plots to be sold at market prices, and, in the event it fails to do so, the balance of its budget will be transferred to the other two windows. The Land Settlement Agency will supervise the program, and will insure that no window has an undue advantage over others, and that they all operate on a level playing field. It should be noted here that the introduction of competition into the provision of public services is now seen as an essential component of good governance: “The Citizen’s Charter in the UK requires competition on all service delivery fields, measurement and public disclosure of service performance, and inclusion of users on service management committees” [Urban Institute, 1996, in Kim, 1997, 1615].

8. *Hire-Purchase Agreements:* Households will acquire legal title to their plots from intermediary agents in a hire-purchase agreement over a five-year period, after which they will become holders of freehold titles or statutory leases (if the project is on public land). The intermediary will collect monthly rents from households and, in turn, make payments on any loans incurred. Credit risks shall thus be born by intermediaries, rather than by individual households. Households that fail to make the necessary agreed-upon payments will have their rental contracts terminated and will be required to leave. Disputes between intermediaries and participating households will be settled through binding arbitration in a Landlord-Tenant Tribunal set up especially by the program. Tenants participating in the program will be specifically excluded from any provisions in the existing rent control laws that may hinder their eviction in the event of persistent failure to pay their rents. Rent control legislation in general will be reviewed and reformed as part of the long-term legislative review process of the National Housing Council (NHC) to be discussed below.

The Private-Sector Window

Land owners may participate in the program in one of two ways: (a) by offering their raw land for the development of serviced sites; and (b) by offering their land occupied by squatters for improvement and regularization. Contractors and developers can participate in the program by building core houses (or providing building kits for core houses) on individually-owned or leased plots. In the first instance, landowners will offer their own raw land for the creation of new sites. Raw land may range from a minimum of 10 acres for 80 building sites to a maximum of 125 acres for 1,000 building sites. Offers will be solicited from landowners up to a total of 1,000 building sites per annum. Landowners offering their sites will receive technical assistance for planning, implementing and marketing land subdivisions from the private-sector window of the Land Development Agency (either directly or by contracting third parties at a maximum cost of TT\$2,000 per plot). Once planning is completed, lands will be marketed to qualified beneficiaries. Once enough program beneficiaries sign up for one-half of the plots in a given subdivision, the land

owner will receive the up-front subsidy funds and loan funds of the beneficiaries and will obtain help from the private-sector window in receiving additional loans from banks, if necessary, to embark upon the implementation of the project. The private-sector window will provide subsidies and loans for at most half of the lots on each project site, with the idea that the land owner will develop and sell the other half at market prices, using bank loans to finance their development.

1. *The Cost of Serviced Sites:* It is provisionally estimated that each serviced plot will cost TT\$25,000–35,000 (raw land cost + development cost), and it should be possible to produce serviced lots at prices lower than TT\$20,000 in rural and semi-urban areas. These ranges compare with an average cost of TT\$39,300 (US\$6,300) for a serviced plot in the Project Execution Unit (PEU) sites in 1995–2000 – TT\$8,800 for raw land at an average cost of TT\$2.10 per square foot, and TT\$30,500 for land development at an average cost of TT\$7.10 per square foot [PEU, 2000, 21]. The emphasis of the second-phase program, and the competition among the three windows of implementation will focus on reducing the cost of serviced lots while increasing the number of lots provided. For each plot, the landowner shall receive a maximum of TT\$20,000 up front from the private-sector window. If he owns the land outright, this amount should be sufficient to develop the site at minimum standards. Such minimum standards could initially involve lots of 3,500–4,000 square feet, length-to-width ratios of two or more, marketable land area of 80% or more, narrower road right-of-way, compacted laterite roads, septic tanks, open storm drains, and piped water to the site [see PADCO and Laughlin, 1993c, Annex 2]. Government land use and subdivision regulations, both at the national and local levels, will need to be modified to make the progressive development of residential land possible and smooth, as a precondition for moving ahead with the proposed reform program.

If the land owner chooses to develop the entire site at the first stage (or to develop it at higher standards), the owner will need to obtain a bank loan for completing the project, amounting to the cost of development of the additional lots, which may range from TT\$20,000–40,000 per lot. The land owner will then be supported in obtaining bridge financing for investing in project infrastructure, and will be provided with assistance in planning, implementation and marketing of these additional plots. The Bank loan should be obtained at the prevailing interest rates of 8% per annum, either from the program, from the Trinidad and Tobago Mortgage Finance Company (TTMF), or from Approved Mortgage Companies (AMCs).

2. *Periodic Payments and Affordability:* Upon completion of construction, subsidy+loan beneficiaries will move into the site, renting the site for five years on a hire-purchase basis, while making monthly payments directly to the landowner. If total land and development costs amounted to TT\$30,000 per plot for example, those with reported median annual incomes of TT\$20,000 (TT\$1,665 per month) will pay back a total of TT\$20,000 in 60 monthly installments of TT\$400 at 8% per annum. Those with reported median annual incomes of TT\$13,000 (TT\$1,080 per month) will pay back a total of TT\$13,500 in 60 monthly installments TT\$270. And those with reported median annual incomes of TT\$9,300 (TT\$775

per month) will pay back a total of TT\$10,000 in 60 monthly installments of TT\$192 at 8% per annum.

After five years, when monthly payments to the land owner have all been promptly made, and loans have all been repaid – either to the private-sector window of the Land Settlement Authority, to the TTMF, or to a participating bank, the land owner will furnish the program beneficiaries with freehold titles. In the event that a beneficiary wishes to obtain a mortgage loan for the construction of a core house or a basic minimum house – now estimated to cost TT\$20,000–100,000 – the beneficiary shall enter into an arrangement with the bank lending the funds for paying the balance on his land loan in exchange for obtaining a freehold title to the land, so that the land can be held in mortgage by the bank lending him the funds. To ensure that this can be executed without delay, the landowner shall formally subdivide the land, and obtain (and hold for safekeeping) the freehold title for each plot, before the project is ready for occupation.

3. *The reinvestment of the proceeds of loan repayments:* It is estimated that each project, will yield an average loan return of TT\$6,000 per beneficiary over a five-year period. This money will, in turn, be used for upgrading the project infrastructure, especially for paving roads and installing sewer connections. The accumulated return from the project will be transferred to the local authority in which the project is located, together with the rights to the road right-of-way of the project. The local authority will then become the owner of the road network in the project, and will use the funds to pay for paving the roads and constructing sewers and drains, and well as for maintaining them in good order.

4. *The development of squatters on private lands:* In the event that the land owner is the owner of land occupied by squatters, similar arrangements will obtain, except that in this case the price of the land, the land subdivision plan, the type of infrastructure, and the mode of project implementation will be decided in a contractual agreement between the land owner and the existing community. The private-sector window of the Land Settlements Agency will solicit landowners to participate in the program, and will offer technical and organizational services to both parties (either directly or by contracting third parties at a maximum cost of TT\$2,000 per plot). If necessary, a tribunal should be set up to arbitrate the conditions of contract between the land owner and the squatters, and a special law governing squatting on private lands should be passed to force both parties into binding arbitration. Such a law should include a mandated compensation to the land owner for the actual market value of occupied lands, given that the lands are occupied and can be considered to have a much lower value than vacant lands in the vicinity. It appears, upon preliminary inspection, that the present actual value of occupied private lands is of the order of TT\$1 per square foot.

5. *The participation of private-sector developers:* If a land developer, rather than a land owner, wants to participate in the program, the land developer will need to invest his/her own funds in land purchase or to use part of the subsidy/loan contribution of TT\$20,000 of interested beneficiaries as part down payment to obtain a land purchase loan from the TTMF or the banks in the Approved Mortgage Companies (AMCs) program. The land

developer will need to identify a plot of land for purchase, and then proceed along the same lines as a landowner participating in the program. If necessary, present lending regulations should be modified to enable land owners and developers to obtain loans at preferred interest rate for residential land development, rather than restricting such loans to the purchase or construction of houses.

6. *The Core House Program:* The core house program will be essentially similar in all three windows, and will be designed so that there will be keen competition among the three windows. To qualify for the program, participating households must already possess title documents or statutory lease documents to the plots of land they occupy. Contractors or developers who wish to participate in the program will need to develop one or more core house design that can be built for a total cost of TT\$20,000–30,000 (US\$3,200–4,800). The materials for the houses will be developed as kits that could be assembled on site in a very short time. A number of such kits in this cost range are presently available in the Latin American and Caribbean region. The Land Settlement Agency (LSA) will initially build a demonstration site, where it will invite public-sector, private-sector and civic-sector builders from both Trinidad and Tobago and from abroad to consult people on the waiting list (by conducting focus groups, for example), and to build demonstration core houses in this cost range. It is assumed that within each window, there will be one or more organization selected to build core houses. These organizations will be supported with bridging finance to operate a production site and a warehouse where building kits will be prepared and stored. Once a household is approved for a core house, it shall prepare the necessary foundations (and possibly pour a concrete floor as well). When the preparations are complete, the core house kit will be transported to the site and either built by the household itself or in conjunction with employees of the core house company. It is estimated that 500 core houses will be built annually in each one of the three participating windows in the program.

The Civic Sector Window

Similar procedures to the ones presented above will apply to the civic sector window. The civic sector will be encouraged to participate in the National Land Settlement Program both in the creation of new residential communities, in the improvement of existing communities, and in the construction of core house units. Efforts will be made to attract local non-government organizations (NGOs) and community-based organizations (CBOs) into the program, as well as to attract active and competent regional and international NGOs that are presently not active in the country to join the effort by opening offices in Trinidad and Tobago and engaging in the Program.

A civic sector organization that opts to participate in the program can engage in either of three activities: (a) purchasing raw land for the development of serviced sites; (b) assisting an existing squatter community (either on public or on private land) in the improvement of infrastructure and the regularization of land tenure; and (c) providing (and constructing) core house kits on individually-owned or leased plots of land. Civic sector organizations

will be entitled to a share (to be decided later) of TT\$2,000 per plot or house allocated for program administration, as well as to access to bridge financing.

1. *Civic Sector Development of New Sites:* A civic sector organization will need to buy land from a private or public landowner. If the landowner is a public agency, arrangements will be made for payment for the land over a five-year period. If it is a private landowner, the civic organization will need to obtain bridge financing from the program or to qualify for a bank loan for the purchase of land at preferred interest rates. Whenever possible, land purchase by civic organizations should concentrate on areas where they may generate additional residential land development. This can be accomplished either by buying a portion of a larger plot of land, or by coming into an agreement with the land owner to develop part of the land for sale at market prices or to hold part of the land for future residential development. The goal of the organization will be to use the limited subsidy funds to help low-income households, while at the same time generating as many new residential lots as possible. Its performance will be judged accordingly.

It should be noted here that Trinidad and Tobago has been an exemplary leader in the development of new building sites by civic organizations. The Sou Sou Land Limited, a non-profit company, bought and developed residential land for more than 3,000 households in the early 1980s: "By 1986, 1,200 hectares of land were purchased, spread over 13 projects in Trinidad and Tobago, involving the investment of some TT\$18m provided by 12,000 participants" [Laughlin, 1992, 6]. The Sou Sou land experiment exposed two important weaknesses in the provision of residential sites to low-income families: (a) difficulties in the conversion of rural to urban land in the face of strict land use controls; and (b) difficulties in creating low-cost land development techniques at lower standards in the face of strict land subdivision regulations [PADCO and Laughlin, 1993d, 21]. Both obstacles must be removed if the National Land Settlement Program is to succeed.

2. *Civic Sector Upgrading of Squatter Settlements:* A civic sector organization can also engage in the improvement and consolidation of squatter communities, both on private lands and on government lands. In fact, to bring the upgrading program to scale it is essential that civic sector organizations will supplement, and at the same time compete, with the upgrading work done by the Settlement Upgrading Unit (SUU) of the Land Settlement Agency. Only in this manner, will timely innovations in procedures be adopted, and only in this manner will upgrading proceed in a dynamic and aggressive fashion. In addition, since the actual implementation capacity of each window is not, and cannot be, known in advance, the initiation of the program through three separate windows will reduce project implementation risk. It should be recalled here that the first IDB-supported housing program was approved in late 1989 and has taken more than 10 years to implement [IDB, 2000], and that there is already ample experience in Trinidad and Tobago of community based organizations engaged in squatter upgrading and regularization projects.

The Public Sector Window

Finally, public sector intermediaries will also be engaged in program implementation in a variety of roles, both in the provision of new sites, in upgrading and improvement of existing sites, and in the provision or construction of core house kits. Three organizations in particular, can play significant roles in implementation: (a) the Project Execution Unit (PEU); (b) the Sugar Industry Welfare Labour Committee (SILWC); and the Settlement Upgrading Unit (SUU) of the Land Settlement Agency (LSA). The Project Execution Unit has developed considerable expertise in the development of residential sites, and in supporting families with the construction of numerous house styles on these sites. As noted earlier, it did not target its subsidies to low-income families, it developed sites at high standards and with high levels of subsidies that cannot be replicated at the required scale, and it completed too few sites per annum. Its expertise could best be utilized in creating large residential sites, composed of subsidized lots that can be marketed to program beneficiaries through the public sector window, as well as market-priced lots that can be sold in the open market through private sector intermediaries. It can also be relied upon to develop new designs for prefabricated or ready-for-assembly core house kits for construction on individually-owned or leased plots.

1. Public Sector Land Development: It is envisioned that the Project Execution Unit will develop two or three large sites per year, with room for a total of 1,000 serviced sites, half of which will be allocated to qualified beneficiaries and half sold at market prices. At a gross density of 8 plots per acre, this would entail the development of 125 acres annually. It is provisionally estimated that each serviced plot will cost TT\$25,000–30,000 (raw land cost + development cost), and each market-priced plot will cost 35,000–40,000. The total cost of producing 1,000 serviced sites per year amounts to some TT\$35 million a year, of which TT\$10 million will be available from the subsidy+loan packages of program beneficiaries. The rest – TT\$23 million – will require bridge financing. The program budget allocates a total of TT\$75 million in bridging finance for the three participating windows – a sum that should be sufficient for two years, after which it should be used as a revolving fund. It is estimated that the market-priced units could be sold at a profit, estimated at TT\$10,000–30,000 per plot, which could be used to replenish the bridge financing fund or to provide additional subsidy+loan packages to beneficiaries.

The Sugar Industry Welfare Labour Committee (SILWC) has been engaged in the development of residential sites, in the provision of loans for house construction and improvement, as well as in squatter upgrading over many years. At present, it is planning to purchase raw land sites at TT\$60,000 per acre (TT\$1.50 per square foot, or TT\$7,500 per lot), and to develop site infrastructure at an average cost of TT\$37,000 per plot. These costs, amounting to TT\$45,000 per plot, are higher than those envisioned in the program – TT\$25,000–35,000. Means must be found to reduce these costs and bring them into line with other intermediaries in the program. The Committee is expected to continue to provide serviced sites, as well as housing loans, using its own resources, as well as availing itself of

subsidy+loan packages for qualified beneficiaries. It could also participate in the production of core house kits for construction on individually-owned or leased plots.

2. *Public Sector Squatter Upgrading*: The Settlement Upgrading Unit (SUU) of the Land Settlements Agency (LSA) will focus on the upgrading of squatter settlements on public lands, as it is doing at present. It will use the same subsidy+loan scheme as that of other components in the program, providing a total of TT\$20,000 for each program beneficiary. The Unit will work together with squatter community organizations in preparing plans for upgrading, in negotiating a price for land, and in project implementation. Where possible, cost savings may be attained by creating new building sites within, or at the margin of, existing squatter communities that could be provided to designated program beneficiaries, or alternatively sold at market prices and used for the benefit of the community – to reduce overall costs or to build community facilities.

Institutional Reform

1. *The National Housing Council*: Unfortunately, the Ministry of Housing and Settlements does not have, at present, neither a comprehensive housing policy nor an organizational structure that can lead to the formulation of such policy and its development over time. The Ministry is still, in an important sense, oriented towards public housing in its variety of forms, rather than to managing the housing sector as a whole and to facilitating housing actions by other key stakeholders in the sector. Each of the four departments engaged in housing is, in fact, an operational department engaged, in one form or the other, in the actual production and financing of housing. To become a truly modern housing organization, the Ministry must seek to create a National Housing Council (NHC). The council should be chaired by the Minister, include representatives of all the relevant departments in the Ministry, representatives from other ministries (e.g. finance, planning), representatives from the private construction and banking sector, representatives from the civic sector engaged in housing, representatives from existing squatter communities, and representatives from families on the Ministry's waiting list. The National Housing Council should be charged with the formulation and guidance of national housing policy, the review of the government's housing program, the formulation and advancement of new housing legislation, the review of the housing subsidy regime, and the creation of regular reports on the state of the housing sector.

2. *The Housing Intelligence Unit*: The National Housing Council (NHC) will be assisted by a Housing Intelligence Unit (HIU), located in the Ministry and answerable to the Council, that will collect and publish regular data on housing indicators and regular evaluation of operating programs, as well as provide information to the Council as necessary for the conduct of national housing policy. The Unit should attract qualified personnel for in-house work, and should contract out information gathering and evaluation assignments to outside sources. It will be supported with program funds, amounting to TT\$15 million (US\$2.4 million) over a five-year period.

3. *The Management of the Second-Stage Program:* The overall management of the second-stage housing program in the Ministry of Housing and Settlements will be the responsibility of the Land Settlement Agency (LSA). The Agency will report directly to the Minister, and, through the Minister, to the National Housing Council. The Agency will be reorganized to reflect the design of the program, so that it shall have a chief officer and a management team composed of the managers of the three operational windows: the public sector window, the private sector window and the civic sector window. Within each one of the three windows, there will be three competing operational programs: (a) a serviced sites program; (b) a settlement upgrading program; and (c) a core house program. The three windows will operate independently and in parallel with each other, and the management team will ensure that they operate on a level playing field.

4. *The Future of the National Housing Authority:* The National Housing Authority (NHA) now has a portfolio of some 18,000 loans (at below-market interest rates) and owns some 6,000 rental units. The portfolio is in serious arrears and requires consolidation with a view to divesting the NHA of these assets altogether. At this time, no specific recommendations can be made as to how this can be attained. At present, the NHA is no longer involved in the construction of low-cost houses or apartment units. Its newest six projects, containing 497 apartments, are scheduled for sale at near market rates. The average cost of an apartment in these projects is TT\$175,000 and the median cost is TT\$180,000 [NHA, 2000a]. At these price levels, the NHA does not serve low-income households. These prices, in fact, are similar to typical house prices in the private sector. 785-square-foot houses in St. Andrews Park community in Chaguanas, for example, now sell for TT\$198,500. There is no longer any rationale for the NHA to continue to construct houses and apartments that can just as easily be constructed by the private sector.

NHA apartment units are presently occupied by families of varying incomes, not necessarily all poor, at considerably below market rents. Rents are not sufficient to cover maintenance costs and repairs, necessitating large annual subsidies. The actual, approved and projected estimates for the refurbishment and repairs of housing estates during the three fiscal years 1998–2001 amount to a total of TT\$34.6 million (US\$5.5 million). In fact, in strict economic terms, the value of these flats to the Government of Trinidad and Tobago is negative. They can, and should be privatized – either by selling them at a large discount to sitting tenants, or by selling them to private investors. There are difficulties in implementing both schemes, partly because the NHA does not possess clear titles to its housing estates. Again, at present no specific recommendations can be made as to how this can be attained. Hence, the program does not allocate any resources towards NHA programs. The NHA's main challenge over the next few years is to divest itself of its assets intelligently, efficiently and in an equitable manner, and to prepare itself for a new role.

Conclusion

The proposed program, as outlined above, can meet the eight objectives listed at the beginning of this section:

- (1) it will largely eliminate squatting by vastly increasing the number of available serviced sites, adding 3,000 new sites to the existing stock – more than 50% of the total annual demand for new sites;
- (2) it will greatly improve the targeting and effectiveness of subsidies, by employing a competent Targeting Group, by directing all 30,000 subsidy+loan packages of TT\$20,000 to households with below-median incomes, by lowering subsidy levels and spreading them to larger numbers of people, and by leveraging subsidies to create additional non-subsidized plots;
- (3) it will increase efficiency, innovation and accountability by implementing the program through three parallel windows within the Land Settlement Agency (LSA) – a public sector window, a private sector window and a civic sector window – that will all be competing with each other on a parallel playing field;
- (4) it will balance the three key housing needs in the country by injecting equal amounts of resources into the production of new serviced sites, the improvement of infrastructure existing settlements, and the construction of core houses on individually-owned or leased plots;
- (5) it will extend the benefits of squatter settlement improvements to established communities on private, rather than public lands, by creating the necessary legal and administrative mechanisms and by providing subsidy+loan funds for the purchase of occupied lands;
- (6) it will streamline and industrialize the provision of core houses on individually-owned and leased plots, offering 1,500 new core houses per year, a quarter of the required annual house supply in the country;
- (7) it will encourage and accelerate the reform of planning and building regulations to facilitate low-cost progressive land development; and
- (8) it will create and empower a National Housing Council (NHC) in the Ministry of Housing and Settlements as a forum for the formulation and monitoring of national housing policy, and it will improve the research, evaluation and data collection necessary for Council policy making by creating and providing resources for the Housing Intelligence Unit.

At the same time, the program calls for a reallocation of Government and IDB housing resources, rather than for vastly increasing the resources allocated to the sector. The program requires an annual allocation of TT\$150 million (US\$24 million) over a five-year period, while the estimated development program allocations for housing programs in the Ministry average during 1998–2001 – TT\$172 million (US\$27.5) [Ministry of Housing and Settlements, 2000b].

ANNEX: A NOTE ON THE INCOME DISTRIBUTION IN TRINIDAD AND TOBAGO

Although the country's leading economists generally agree that Trinidad and Tobago has a highly – skewed income distribution and that it appears to have worsened over the past decade⁶, published statistical data on the matter is not readily available. Publications by multilateral agencies, such as the World Bank's *World Development Report* or the United Nations Development Programme's *Human Development Report* do not contain any income distribution data on Trinidad and Tobago. This note uses household income distribution data from the *1990 Population and Housing Census* [Central Statistical Office, 1994b], as well as more recent salary and wage data from the *Continuous Sample Survey of Population: Labour Force Report 1997* [Central Statistical Office, 1997], to estimate the household income distribution in 1997 – both for the country as a whole and for the metropolitan area of Port of Spain. It also uses consumption data in the national income accounts to correct these income distributions for under-reporting.

The household income distribution data for the country as a whole for 1990 is given in table A1. It is derived by transforming the data in the 1990 census [Central Statistical Office, 1994b, table 7, 212] into ten income deciles, where each decile contains one-tenth of the total number of households surveyed. As can be seen from the table, the median annual household income in 1990 was TT\$16,941 (US\$3,940). The Gini Coefficient for this income distribution was calculated from the data to be 0.48. The total income earned by 40% of the lowest-income earning households amounted to 9.1% of total income, and the ratio of the total income earned by the highest-income 20% of households to the total income earned by the lowest-income 20% of households was found to be 25.0.

Table A1: Household Income Distribution in Trinidad and Tobago, 1990

Decile	Annual Household Income (TT\$)		Annual Household Income (US\$)	
	From	To	From	To
1st	\$0	\$2,442	\$0	\$568
2nd	\$2,442	\$4,883	\$568	\$1,136
3rd	\$4,883	\$8,325	\$1,136	\$1,936
4th	\$8,325	\$12,610	\$1,936	\$2,933
5th	\$12,610	\$16,941	\$2,933	\$3,940
6th	\$16,941	\$21,860	\$3,940	\$5,084
7th	\$21,860	\$33,693	\$5,084	\$7,836
8th	\$33,693	\$39,431	\$7,836	\$9,170
9th	\$39,431	\$60,612	\$9,170	\$14,096
10th	\$60,612+		\$14,096+	

Source: Calculated from Central Statistical Office, 1994, vol. 8, table 7, 212.

TT\$4.30 = US\$1.00 in 1990.

The household income distribution data for the metropolitan area of Port of Spain for 1990 is given in Table A2. It is derived by adding the data in the 1990 census for Port of

Spain, Arima Borough, Diego Martin, St. Ann's, Tacarigua and Arima Ward and again transforming it into ten deciles. As can be seen from the table, the median annual household income in the metropolitan area in 1990 was TT\$17,744 (US\$4,127), only 4.7% higher than that of the country as a whole. The Gini Coefficient for this income distribution was calculated from the data to be 0.50, somewhat more skewed than that of the country as a whole in 1990. The total income earned by 40% of the lowest-income earning households amounted to 8.3% of total income, and the ratio of the total income earned by the highest-income 20% of households to the total income earned by the lowest-income 20% of households was found to be 29.4.

Table A2: Household Income Distribution in the Port of Spain Metropolitan Area, 1990

Decile	Annual Household Income (TT\$)		Annual Household Income (US\$)	
	From	To	From	To
1st	\$0	\$2,326	\$0	\$541
2nd	\$2,326	\$4,651	\$541	\$1,082
3rd	\$4,651	\$8,030	\$1,082	\$1,868
4th	\$8,030	\$12,865	\$1,868	\$2,992
5th	\$12,865	\$17,744	\$2,992	\$4,127
6th	\$17,744	\$23,621	\$4,127	\$5,493
7th	\$23,621	\$30,945	\$5,493	\$7,197
8th	\$30,945	\$43,246	\$7,197	\$10,057
9th	\$43,246	\$66,886	\$10,057	\$15,555
10th	\$66,886+		\$15,555+	

Source: Calculated from Central Statistical Office, 1994, vol. 8, table 7, 212.

TT\$4.30 = US\$1.00 in 1990.

The 1990 Census also contains data on the income distribution of individual income earners for the country as a whole [Central Statistical Office, 1994b, table 69, 159]. This data was also transformed into ten equal deciles, and is shown in table A3 below. As can be seen from the table, the median annual income of individuals in 1990 was TT\$16,819 (US\$3,911), almost identical to the median household income in 1990. This is not surprising because the total number of households in 1990 (301,183) was not much different from the total number of income earners (313,158). The Gini Coefficient for this income distribution was calculated from the data to be 0.40. It is lower than that of the household income distribution, because it only measures the income of employed persons, while the household income distribution includes the households of unemployed persons as well. The total income earned by 40% of the lowest-income earning individuals amounted to 15.1% of total income, and the ratio of the total income earned by the highest-income 20% of individuals to the total income earned by the lowest-income 20% of individuals was found to be 10.0.

Table A3: Individual Income Distribution in Trinidad and Tobago, 1990

Decile	Annual Individual Income (TT\$)		Annual Individual Income (US\$)	
	From	To	From	To
1st	\$0	\$5,513	\$0	\$1,282
2nd	\$5,513	\$8,504	\$1,282	\$1,978
3rd	\$8,504	\$11,250	\$1,978	\$2,616
4th	\$11,250	\$13,996	\$2,616	\$3,255
5th	\$13,996	\$16,819	\$3,255	\$3,911
6th	\$16,819	\$19,721	\$3,911	\$4,586
7th	\$19,721	\$24,893	\$4,586	\$5,789
8th	\$24,893	\$31,336	\$5,789	\$7,287
9th	\$31,336	\$43,534	\$7,287	\$10,124
10th	\$43,534+		\$10,124+	

Source: Calculated from Central Statistical Office, 1994, vol. 8, table 2, 74.

The *Continuous Sample Survey of Population: Labour Force Report 1997* also contained data on the income distribution of individual income earners for the country as a whole [Central Statistical Office, 1997, table 8A, 27]. This data was also transformed into ten equal deciles, and is shown in table A4 below. As can be seen from the table, the median annual income of individuals in 1997 was TT\$18,845 (US\$2,991). The Gini Coefficient for this income distribution was calculated from the data to be 0.41. The total income earned by 40% of the lowest-income earning individuals amounted to 14.5% of total income, and the ratio of the total income earned by the highest-income 20% of individuals to the total income earned by the lowest-income 20% of individuals was found to be 10.0, neither more nor less than the values calculated for 1990.

The household income distribution for the country as a whole in 1997 was derived by multiplying the range values of each decile of the 1990 distribution (table A1) by the ratio of the range values for each income decile for the country as a whole given in table A3 and A4. For example the upper limit of the first decile in table A1 was multiplied by the ratio \$6,413/\$5,513 to obtain the upper limit for the first decile in 1997. The resulting income distribution is shown in table A5 below. As can be seen from the table, the median annual household income in Trinidad and Tobago in 1997 was TT\$18,982 (US\$3,013). The Gini Coefficient for this income distribution was calculated from the data to be 0.52, definitely more skewed than that of 1990, 0.48. The total income earned by 40% of the lowest-income earning households amounted to 8.6% of total income, and the ratio of the total income earned by the highest-income 20% of households to the total income earned by the lowest-income 20% of households was found to be 25.1, both similar values to those of 1990.

Table A4: Individual Income Distribution in Trinidad and Tobago, 1997

Decile	Annual Individual Income (TT\$)		Annual Individual Income (US\$)	
	From	To	From	To

Decile	From	To	From	To
1st	\$0	\$6,413	\$0	\$1,018
2nd	\$6,413	\$9,414	\$1,018	\$1,494
3rd	\$9,414	\$12,172	\$1,494	\$1,932
4th	\$12,172	\$14,121	\$1,932	\$2,241
5th	\$14,121	\$18,845	\$2,241	\$2,991
6th	\$18,845	\$23,273	\$2,991	\$3,694
7th	\$23,273	\$28,357	\$3,694	\$4,501
8th	\$28,357	\$36,198	\$4,501	\$5,746
9th	\$36,198	\$49,472	\$5,746	\$7,853
10th	\$49,472+		\$7,853+	

Source: Calculated from Central Statistical Office, 1997, table 69, 159.

TT\$6.30 = US\$1.00 in 1997.

Table A5: Household Income Distribution in Trinidad and Tobago, 1997
(Based on Reported Income)

Decile	Annual Household Income (TT\$)		Annual Household Income (US\$)	
	From	To	From	To
1st	\$0	\$2,840	\$0	\$451
2nd	\$2,840	\$5,406	\$451	\$858
3rd	\$5,406	\$9,008	\$858	\$1,430
4th	\$9,008	\$12,723	\$1,430	\$2,020
5th	\$12,723	\$18,982	\$2,020	\$3,013
6th	\$18,982	\$25,797	\$3,013	\$4,095
7th	\$25,797	\$38,383	\$4,095	\$6,093
8th	\$38,383	\$45,549	\$6,093	\$7,230
9th	\$45,549	\$68,879	\$7,230	\$10,933
10th	\$68,879		\$10,933	

Source: Calculated from tables A2, A3 and A4. TT\$6.30 = US\$1.00 in 1997.

The household income distribution for the metropolitan area of Port of Spain in 1997 was derived by multiplying the range values of each decile of the 1990 distribution (table A2) by the ratio of the range values for each income decile for the country as a whole given in table A3 and A4, the same procedure used in deriving table A5. The resulting income distribution is shown in Table A6. As can be seen from the table, the median annual household income in the metropolitan area in 1997 was TT\$19,881 (US\$3,156). The Gini Coefficient for this income distribution was calculated from the data to be 0.50, neither more nor less skewed than that of 1990, but now less skewed than that of the country as the whole in 1997, 0.52. The total income earned by 40% of the lowest-income earning households amounted to 7.9% of total income, and the ratio of the total income earned by the highest-income 20% of households to the total income earned by the lowest-income 20% of households was found to be 29.0, both similar values to those prevailing in the metropolitan area in 1990.

Finally, as the PADCO study noted, the reported income in the publications of the Central Statistical Office does not fully account for all personal income in the country. In fact, it is considerably smaller than the total reported household expenditures, designated as private consumption in national accounts. Total private consumption in 1997 was TT\$22.6 billion (US\$3.59 billion) [IMF, 2000, 766]. The estimated total reported household

Table A6: Household Income Distribution in the Port of Spain Metropolitan Area, 1997
(Based on Reported Income)

Decile	Annual Household Income (TT\$)		Annual Household Income (US\$)	
	From	To	From	To
1st	\$0	\$2,705	\$0	\$429
2nd	\$2,705	\$5,149	\$429	\$817
3rd	\$5,149	\$8,689	\$817	\$1,379
4th	\$8,689	\$12,980	\$1,379	\$2,060
5th	\$12,980	\$19,881	\$2,060	\$3,156
6th	\$19,881	\$27,875	\$3,156	\$4,425
7th	\$27,875	\$35,253	\$4,425	\$5,596
8th	\$35,253	\$49,957	\$5,596	\$7,930
9th	\$49,957	\$76,008	\$7,930	\$12,065
10th	\$76,008+		\$12,065+	

Source: Calculated from tables A2, A3 and A4. TT\$6.30 = US\$1.00 in 1997.

income in the country in 1997, given the income distribution in table A5 and assuming a total number of 325,000 households and an average household size of 3.9, is TT\$9.2 billion (US\$1.5 billion). This implies that private consumption in the country amounts to 2.46 times the total reported household income. This is a slightly larger than the multiplier of 2.19 reported in the 1993 Housing Survey [PADCO and Laughlin, table 1.8, 14]. If we assume that private consumption is a more accurate measure of income, and correct the income distributions in tables A5 and A6 for under-reporting by multiplying their ranges by 2.46, we obtain the income distributions in tables A7 and A8 below.

To conclude, the household income distribution in Trinidad and Tobago in general, and in the metropolitan area of Port of Spain in particular, is highly skewed but typical of Latin American and Caribbean countries. Its Gini Coefficient is only slightly lower than the average for Latin America and the Caribbean, 51.9, but considerably higher than the median value for the world as a whole, 39.1. As expected, given the high levels of unemployment in Trinidad and Tobago, averaging 19.1% between 1987 and 1997, the household income distribution in the country is considerably more skewed than the income distribution of employed persons. During the period in question, the data shows clearly that, while income levels were generally stagnant, the household income distribution in the country as a whole has worsened, while the household income distribution in the metropolitan area of Port of Spain has remained the same.

Finally, there is a vast disparity between reported incomes in the surveys of the Central Statistical Office and private consumption data in national accounts. Private consumption

Table A7: Household Income Distribution in Trinidad and Tobago, 1997
(Corrected for Under-Reported Income)

Decile	Annual Household Income (TT\$)		Annual Household Income (US\$)	
	From	To	From	To
1st	\$0	\$6,986	\$0	\$1,109
2nd	\$6,986	\$13,299	\$1,109	\$2,111
3rd	\$13,299	\$22,160	\$2,111	\$3,518
4th	\$22,160	\$31,299	\$3,518	\$4,969
5th	\$31,299	\$46,696	\$4,969	\$7,412
6th	\$46,696	\$63,461	\$7,412	\$10,074
7th	\$63,461	\$94,422	\$10,074	\$14,989
8th	\$94,422	\$112,051	\$14,989	\$17,786
9th	\$112,051	\$169,442	\$17,786	\$26,895
10th	\$169,442+		\$26,895+	

Source: Calculated from table A5 and IMF, 2000. TT\$6.30 = US\$1.00 in 1997.

Table A8: Household Income Distribution in the Port of Spain Metropolitan Area, 1997
(Corrected for Under-Reported Income)

Decile	Annual Household Income (TT\$)		Annual Household Income (US\$)	
	From	To	From	To
1st	\$0	\$6,654	\$0	\$1,055
2nd	\$6,654	\$12,667	\$1,055	\$2,010
3rd	\$12,667	\$21,375	\$2,010	\$3,392
4th	\$21,375	\$31,931	\$3,392	\$5,068
5th	\$31,931	\$48,907	\$5,068	\$7,764
6th	\$48,907	\$68,573	\$7,764	\$10,886
7th	\$68,573	\$86,722	\$10,886	\$13,766
8th	\$86,722	\$122,894	\$13,766	\$19,508
9th	\$122,894	\$186,980	\$19,508	\$29,680
10th	\$186,980+		\$29,680+	

Source: Calculated from tables A6 and IMF, 2000. TT\$6.30 = US\$1.00 in 1997.

is almost 2.5 higher in the national accounts than in the survey estimates, making it exceedingly difficult to make housing affordability calculations. Given the quality and value of housing in Trinidad and Tobago, however, it stands to reason that the national accounts better represent the true income distribution in the country. Tables A7 and A8 have been adopted for use, therefore, in calculations of housing affordability. This leaves open the question of assessing household incomes for purposes of targeting subsidies. In this latter case, assuming that the Targeting Group (TG) can do no better than the Central

Statistical Office, we may be forced to assume that reported incomes, rather than incomes estimated from national accounts, should be used.

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ENDNOTES

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2. The number in parenthesis is the ratio for median income adjusted for under reporting.
3. Defined as the ratio between the cost of one m² of serviced land on the urban fringe and the median annual household income.
4. Interview with Mr. Anson Senkeron, legal council to the Trinidad and Tobago Mortgage Finance Company, 17 July 2000.
5. The National Housing Authority (NHA) has undertaken squatter regularization projects since 1988, empowered by Act No. 20 of 1986.
6. See for example their comments in the November 1997 report on Trinidad's Medium--Term Economic Outlook, as reported by the U.S. www.usembassy.state.gov/posts/td1/wwwhmedt.html.