

The Housing Policy Assessment and Its Application to Panama¹

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Received June 4, 2001

This paper presents a diagnostic tool for the rapid assessment of the housing market and housing policy in a given country, using a global comparative perspective. The aim of such an assessment is to ground proposed government interventions in the housing market in a broader housing market reform. The rapid assessment requires defining the critical components of housing policy and the key dimensions of housing market performance. The general methodology for the assessment was developed by the author in his recent book, *Housing Policy Matters: A Global Analysis* (Oxford Univ. Press, New York, Oxford, 2000). The book itself is based on two earlier foundations: (a) a conceptual framework for housing policy, developed by the author and the late Stephen Mayo in the 1993 World Bank housing policy paper, *Housing: Enabling Markets to Work* (World Bank, Washington, D.C., 1993); and (b) the comparative set of housing indicators for 53 countries, defined, tested, and assembled by the author and the late Stephen Mayo—together with independent consultants in each country—during 1990–1994 in the Housing Indicators Program, a joint program of the World Bank and the U.N. Centre for Human Settlements. In the past two years, the author has conducted eight housing policy assessments in Central and South America. In this article, he uses the study conducted in Panama to illustrate the usefulness of this diagnostic framework, and to demonstrate how to derive specific policy recommendations from a general comparative analysis. © 2001 Elsevier Science (USA)

INTRODUCTION

Government interventions in the housing market most often take the form of singular projects, programs, or regulatory initiatives. Such singular (and often myopic) interventions are typically initiated without a broad understanding of the conditions outside the housing market that have an overriding effect on market performance, without an adequate understanding of how such interventions may affect the operations of the housing market as a whole, and without adequate

¹This paper is based on a report prepared for the Inter-American Development Bank (IDB) and the Ministry of Housing, Government of Panama in August–October 2000. I thank Felipe Morris, Ricardo Reyes-Richa, Laurencio Guardia Conte, Maria Teresa Sousa, and Lucila Gitlin, as well as the editors and the anonymous referees. The author is solely responsible for the opinions expressed in this paper, as well as for any remaining errors.

attention as to how they may advance or hinder a broader market reform agenda. As a result, they often fail to yield the desired results and fall short of expectations. The main objective of conducting a rapid assessment of the housing policy environment is to ground new housing initiatives in a broader understanding of the housing market, and to couch them in a broader housing policy reform agenda. Such assessments can be particularly important in association with initiatives that involve foreign aid or loans by multilateral organizations, when knowledge of the local housing market and the housing policy environment may be grossly inadequate.

The focus of this paper is an assessment for Panama, mandated by a midterm review of a comprehensive housing investment loan to the Government of Panama by the Inter-American Development Bank (IDB). The reader should keep in mind, however, that the broad comparative framework presented here—while yielding new insights—cannot replace a more intimate understanding of conditions on the ground and the immediate prospects for political reform. To quote Robert Moses: “Note that there is no mention of the planning that depends on intimate knowledge of a community and affection for it, and that no distinction is drawn between the visiting diagnostician and the resident family doctor. All we have is the glib itinerant expert who knows everything and is at home everywhere” (Moses, 1956).

My earlier work on housing indicators, in association with the late Stephen Mayo and a large number of independent consultants²—one in each of 53 countries—resulted in the creation a large global database,³ and thus created an effective mechanism for collecting data on the housing market in a systematic comparative framework. Indeed, these studies and related research elicited great interest in comparative indicators, and resulted in a global initiative to collect and maintain a global observatory of housing and urban indicators (Urban Observatory, 2001). Our other common effort—the World Bank’s housing policy paper, *Housing: Enabling Markets to Work* (World Bank, 1993)—created a systematic conceptual framework for housing policy. This paper is widely cited. Gilbert (2000), for example, refers to it as “the base document around which most thinking about housing now takes place.” Angel (2000) elaborates on this conceptual framework, combines it with the global survey of housing indicators in 53 countries, and tests the effects of housing policy on housing market performance. This conceptual framework is elaborated upon in the following section of this paper. Angel (2000) also presents empirical evidence to show that enabling housing policies indeed result in improved housing market performance. But neither the book, nor our earlier work on indicators and on housing policy, provided a method for applying this type of analysis in the field.

²See, for example, Housing Indicators Program (1991); Angel *et al.* (1993); Housing Indicators Program (1994); and Angel and Mayo (1996).

³The 1990 housing indicators database appears as an appendix in Angel (2000b).

The rapid assessment tool described in this paper is a practical application of the methods, concepts, and database developed earlier to an actual situation. It utilizes an indicator-based approach to diagnose the current conditions in the housing market and the status of the housing policy environment in Panama in a structured and systematic manner, with the aim of drawing practical guidelines for action on housing at the present time. As a tool, it follows in the footsteps of a number of earlier papers that have utilized a similar indicator-oriented approach, notably Hardman *et al.* (1995) on Egypt; Hegedus *et al.* (1996) on Central and Eastern Europe; Kilicer (1996) on Islamic countries; Malpezzi and Mayo (1997) on Malaysia; Mayo [1993] on South Africa; Renaud (1993) on the Russian Federation; and Zearley (1993) on Mexico.

The checklist format of the assessment presented here has proved to be quite robust, and has been employed, in largely the same form, in eight countries to date, all of them in Central and South America—Guatemala, Nicaragua, Panama, the Dominican Republic, Trinidad and Tobago, Ecuador, Venezuela, and Argentina.⁴ Data accumulated from the above assessments, as well as data collected in the global survey of housing indicators of 1990, are used extensively below to place Panama in a broader comparative framework.

I. THE HOUSING MARKET—A CONCEPTUAL FRAMEWORK⁵

We define housing policy environment as the set of government interventions that have a critical and measurable effect on the performance of the housing market. This is an empirical definition. It implies, for example, that policies that do not have any effect on the housing market are not and should not be considered part of the housing policy environment. In light of the difficulty of associating housing policy with a single well-defined institution of government, this definition is also open and inclusive, rather than closed and exclusive. The housing policy environment therefore consists of a set of interventions in the housing market by different government agencies. As expected, not all such interventions sustain a well-functioning housing market, well-functioning from the perspective of its key stakeholders—households, builders, lenders, local governments, and national governments.⁶

⁴The format of the assessment is general, and not tailored to the Latin American context at all. Each of the assessments performed typically involved a total of 25–40 person-days of an international consultant and 12–20 person-days of a local consultant. It consisted of (a) a field visit that included data and document collection as well as interviews with all key stakeholders (7–10 person-days) and (b) analysis of available documentation and the preparation of the assessment report (18–30 person-days).

⁵This section is a summary of Chapters 1 and 6 in Angel (2000b). A mathematical formulation of the model appears in Angel (2000b, 75–79).

⁶For a detailed description of a well-functioning housing sector see World Bank (1993, 15–17).

Some interventions are said to be enabling, while others are said to be non-enabling or interventionist. Enabling is defined in the simplest terms as “setting boundaries and giving support while relinquishing control.” More specifically, the enabling approach to housing policy is grounded in the realization that most houses are and should be constructed, financed, maintained, and exchanged by market (and sometimes civic) institutions and that government intervention in the housing market should be focused on enabling housing markets to work. Yet it is not to be confused with “laissez-faire.” The enabling approach obliges governments to oversee and monitor housing markets, to correct housing market failures, and to ensure the adequate supply of public goods, yet frees it from a direct mandate to meet housing needs through the construction, finance, and management of housing estates. Angel (2000b) provides empirical evidence to show that along a large number of dimensions of housing market performance, more enabling housing policies are associated with improved performance. In the pages that follow, therefore, housing policy in Panama is evaluated along the enabling-interventionist spectrum, with a view to making it more enabling in the years to come.

The model of the housing market in Fig. 1 provides a schematic of the relationships between the housing policy environment on the one hand, and housing market outcomes on the other. Both policies and outcomes exist in a broader economic, social, and political context, and relate to the key conditions affecting the housing market. The overall economic, social, and political context of the housing market affects housing market outcomes both directly and indirectly.

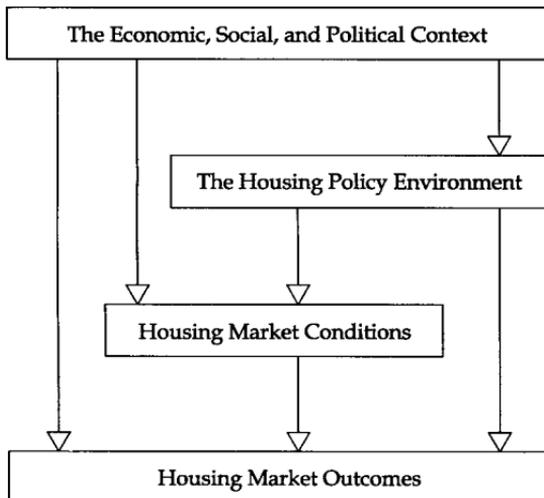


FIG. 1. A policy-sensitive model of the housing market.

The housing policy environment also affects housing market outcomes both directly and indirectly.

The next four sections of this paper elaborate on each of the four components of this model as they apply to Panama. This elaboration is reduced to a basic checklist, in order to ensure that all the essential aspects of the diagnosis are given adequate treatment. Section II focuses on six key elements of *the economic, social, and political context* of the housing market—(1) population growth and urbanization; (2) economic growth and the level of economic development; (3) the distribution of income; (4) government fiscal policy; (5) inflation, savings, and conditions in the financial sector; and (6) conditions in the construction sector. Section III elaborates on the six key components of *the housing policy environment*—(1) the property rights regime; (2) the housing finance regime; (3) the subsidies regime; (4) residential infrastructure; (5) the legal and regulatory regime governing the housing market; and (6) the institutional framework for government intervention in the housing market. Section IV describes three key *housing market conditions*—(1) the availability of land; (2) conditions in the residential construction market; and (3) the availability of mortgage finance. Section V details five key *housing market outcomes*—(1) house prices, rents, and affordability; (2) dwelling units and living space; (3) housing quality; (4) tenure; and (5) housing production and investment. Finally, Section VI presents a set of general guidelines for action on housing policy reform, and Section VII proposes a number of key priorities for reform in Panama based on the preceding diagnosis, and the concluding section proposes a number of questions about the rapid assessment that merit further research.

II. THE ECONOMIC, SOCIAL, AND POLITICAL CONTEXT

Housing market performance in Panama, as well as its housing policy environment, are largely the reflection of the economic, social, social, cultural, and political conditions prevailing in the country. Six of these factors that have particularly strong effects on the housing market will be discussed in this section in greater detail. Basic economic and social indicators that summarize these conditions in Panama and compare them to other countries in the region, to conditions in Latin American and the Caribbean as a whole, to other lower-middle-income and upper-middle-income countries with per capita Gross National Product (GNP) similar to that of Panama, and to conditions in the world at large are given in Table 1.

Population growth and urbanization. The population of Panama (2.8 million in the year 2000) grew at an annual rate of 1.9% between 1990 and 2000 (Dirección de Estadística y Censo, 2000, Table 2, 4). The country is still among

the less urbanized countries in Latin America and the Caribbean: In 1999, for example, only 56.8% of the population lived in urban areas, and it ranked 16th in its level of urbanization among the larger 26 countries in the region. Still, the economy of the country is by now already largely an urban economy and a service economy: By 1999, agriculture contributed only 7.7% to GDP (International Monetary Fund, 2000b, Table 2, 13), and less than 17% of the labor force was employed in agriculture (Table 11, 21). The country's urban structure exhibits a high degree of primacy: the metropolitan area centered on Panama City housed 1,267,452 persons in 2000, or 45% of the total population of the country (Dirección de Estadística y Censo, 2000, Table 2, 4–17). Given its relatively low level of urbanization, Panama is still urbanizing at a rapid rate: the province of Panamá, for example, grew at an annual rate of 2.5% between 1990 and 2000 (table 2, 15). At this rate, the population of the metropolitan area will double in size in the next 25–30 years, and its built-up area and its housing stock will need to double as well. Future housing problems are, therefore, most likely to be urban in nature and government housing programs must necessarily focus on cities in general and on the metropolitan area of Panama City in particular.

Economic growth and the level of economic development. After the political and economic crisis of 1989, the economy of Panama rebounded quickly and grew at a brisk pace for a number of years. Real GDP growth amounted to 4.1% in 1998 and 3.2% in 1999, and it is expected to reach 3.5 to 4.0 percent in 2000 (Government of Panama, 2000, 1–2). Gross National Product (GNP) per capita in 1997 was 3,080 Balboas (1.00 Balboa = US\$1.00; Balboas and U.S. Dollars are used interchangeably), and it has been growing at an average rate of 2.9% during the last decade. For purposes of global comparisons, given its GNP per capita, the country's economy falls between the low-middle-income countries (GNP per capita of \$1,230 in 1997) and upper-middle-income countries (GNP per capita of \$4,540 in 1997). The steady growth of the economy, coupled with population growth, should be expected to increase the demand for housing, as well as the ability to pay for housing.

The distribution of income. The country as a whole has a highly skewed income distribution, with a Gini Index of 56.8 that is worse than that of Latin America and the Caribbean as a whole—51.6 (1991 data in World Bank, 1999b, Table 5, 199). A recent study of the distribution of income in the urban areas of Panama (Dirección de Estadística y Censo, 1999, Table 6, 12) notes that it has become more skewed during the last two decades: Between 1983–1984 and 1997–1998, its Gini Index (while still lower than that of the country as a whole) has increased from 45 to 48. “Some 37 percent of Panamanians are estimated by the World Bank to live below the poverty line, and some 19 percent to live in extreme poverty” (Government of Panama, 2000, 5). Housing quality in Panama, particularly at the lower end of the spectrum, should be expected to reflect its poverty. In absolute terms, the median monthly household income in the

TABLE I
Basic Economic, Social and Social Indicators, 1990–2000^a

Indicator	Panama	Dominican Republic	Trinidad & Tobago	Guatemala	Ecuador	Venezuela	Argentina	Latin America & the Caribbean	Lower-middle-income countries	Upper-middle-income countries	The world
Country population (millions), 1997	2.8 ^b	8.1	1.3	11.1	12.0	23.0	37.0 ^b	494	2,283	571	5,820
Annual population growth rate, 1997–2015 (%)	1.3	1.7	0.9	2.7	1.5	1.5	1.2 ^b	1.3	0.9	1.2	1.1
Urban population (%), 1997	56.4	66.2	71.2	39.7 ^c	60	86	89.6 ^b	74	42	74	46
Labor force in agriculture, 1990 (%)	21	18.2 ^d	9 ^e	52	33	12	10.4 ^b	25	58	25	49
Household size, 1990	4.2	4.25 ^d	4.1	4.8 ^c	4.7	4.4	3.6 ^b	4.3	4.6	4.0	4.1
Annual urban population growth (%), 1990–2010	2.48	2.80	1.13	3.8	3.13	2.11	1.40 ^b	2.15	—	2.7	2.55
Country GNP (\$ billions), 1997	8.4	13.5	5.5	18.8	18.4	78.7	278.3 ^b	1,196.8	2,817.9	2,584.0	29,925
GNP per capita (\$), 1997	3,080	1,862	4,230	1,691	1,570	3,450	7,516 ^b	3,940	1,230	4,540	5,180
Annual GDP per capita growth (%), 1990–1998	2.9	4.7	1.6	1.5	1.0	5.3	3.0	1.8	—	—	—
Income distribution Gini index (1985–1995)	57.0 ^d	51.5 ^d	50.0 ^f	59.6	46.6	46.8	46.1 ^f	51.6	—	—	39.1
Annual inflation (%), 1990–1997	1.4	6.9	6.7	17.0	37.7	52.0	1.6 ^g	106.2	—	—	14.4
Under-5 mortality rate per '000, 1996	25	47	15	55	40	28	22 ^d	41	44	37	73
Female life expectancy (years), 1996	76	73	75	69	73	76	77 ^d	73	71	73	69
Female adult illiteracy (%), 1995	10	18	3	51	12	10	3.4 ^d	15	27	17	38

Access to safe water (%), 1995	83	71	82	68	70	79	86.7 ^f	73	—	—	78
Access to sanitation in urban areas (%), 1995	87	76	97	78	60	74	60.3 ^f	80	75	—	—
Government revenues as % of GDP, 1996	27.9	14.2	27.7	11.0 ^c	15.7	19.7	19.7 ^h	21.6	24.1	24.1	26.6
Government budget deficit as % of GDP, 1996	-3.0	0.5	-3.1 ^h	-2.8 ^c	0.0	1.4	-1.7 ^h	-3.3	-3.4	-3.4	-3.1
Debt as percent of GDP (%), 1997	88.1	23.3	36.9	22.4	75.0	39.9	48.3 ^d	33.6	—	32.6	—
Gross domestic investment as % of GDP, 1997	31.1	22.0	21.0 ^h	17.0 ^c	20.2	18.8	19.1 ^h	24.4	27	—	22
Value added by construction as % of GDP, 1997	3.8	10.9	10.8	2.5 ^c	3.2	5.2	5.8 ^h	5.3	—	—	—
Gross domestic savings as % of GDP, 1997	24.1	15.0	29.0	9.4 ^c	19.2 ^b	30	17.4 ^h	20	27	22	22
Banking sector credit as % of GDP, 1997	92.1	34.1	59.2	15.8 ^c	29.0 ^d	19.9	27.3	35.7	65.6	44.9	139.1
<i>Institutional Investor</i> credit rating, 1998	42.7 ^b	31.9 ^b	47.2 ^b	27.0	26.7	34.4	43.0	33.5	33.6	—	35.8
Corruption perceptions index (lowest = 99), 1999	—	—	—	68	82	75	71	61	—	—	49

Note. Data for the Latin American and Caribbean countries, for lower-middle-income countries, for upper-middle-income countries, and for the world at large are for 1990.

^a The sources for this table include World Bank (1999a, 1999b); Inter-American Development Bank, IDB Statistics and Quantitative Analysis Unit, available at www.iadb.org; Transparency International (1999); Institutional Investor (2000); and Angel (1998, 1999, 2000a, 2000b, 2000c, 2000d, 2000e, 2000f).

^b Data for 2000.

^c Data for 1998–1999.

^d Data for 1998.

^e Data for 1995.

^f Data for 1997.

^g Data for 1994–1999.

^h Data for 1999.

metropolitan area (Panamá and San Miguelito) increased from 554 Balboas in 1983–1984 to 597 Balboas in 1997–1998 (calculated from Dirección de Estadística y Censo, 1999, Table 6, 12). Average incomes were found to be \$1,092 in the metropolitan area, \$728 in other urban areas, and \$982 in the urban areas as a whole. In 1997–1998, the annual median household income in the metropolitan area was of the order of \$7,200. In urban areas as a whole it was of the order of \$6,720. These values, combined with median house prices and rents, should provide good comparative measures of the level of housing affordability in the country.

Government fiscal policy. Government revenues in Panama form a significant part of GDP. According to IMF figures, they amounted to 27.9% of GDP in 1996 and averaged 28.3% over the 1994–1999 period (International Monetary Fund, 2000a, Table 17, 28).⁷ Panama had the fourth highest revenue rate in the Latin American and Caribbean region in 1996, after Guyana, Jamaica, and Barbados. Furthermore, fiscal deficits are on the decrease: current revenues exceeded current expenditures by an average of 3% during the 1994–1999 period (International Monetary Fund, 2000b, Table 17, 28), and “[t]he central government overall deficit declined from 5.0 percent in 1998 to 2.4 percent in 1999” (Government of Panama, 2000, 2). Government fiscal policy has successfully focused on the reduction of external debt, which declined, through a series of debt-reduction operations and fiscal reforms, from 74.5% of GDP in 1995 to 58.4% in 1999 (International Monetary Fund, 2000b, 3). A large share of public expenditures is still expended on current accounts rather than on capital investments, but the share of capital investment has been growing steadily: from 12% of total expenditures in 1994 to 20% in 1998 and 1999 (International Monetary Fund, 2000b, Table 17, 28). There are, therefore, substantial public resources that can be—and, in fact, are—made available to support the housing market, in a variety of housing subsidies that will be discussed in greater detail below.

Inflation, savings, and conditions in the financial sector. In comparative terms, the banking sector in Panama is developed, healthy, and active. Panama City functions as a regional banking center, and banking sector credit was 92.1% of GDP in 1997, compared with 35.7% for Latin America and the Caribbean as a whole. The country’s credit rating has increased recently to 42.7, considerably higher than the regional average of 33.5. Panama now ranks 6th in the region and 60th in the world in its credit rating (Institutional Investor, 2000). The local currency, the Balboa, is dollarized and actual dollars are used as a medium of exchange. Money flows freely in and out of the country, and the capital flight that often besets other economies in the region is nonexistent. Inflation is roughly equal to the inflation of the dollar and has therefore been very low. It averaged

⁷Inter-American Development Bank data suggests a lower average of 18.7% for this period (IDB, 2000).

1.4% between 1990 and 1997, a much lower rate than that of other countries in the region. Savings rates and investment rates are high compared to other countries in the region (35.6% and 34.9% respectively in 1997), suggesting that the housing market can and does attract funds domestically.

Conditions in the construction sector. The construction sector in Panama contributes a smaller-than-average share to the Gross Domestic Product—3.9% in 1997, for example (IDB, 2000b)—in comparison with 5.3% in other countries in the Latin American and Caribbean region. The sector suffered from a major slump in 1989, when construction investment was reduced to some 3.7% of its current value. Construction investment climbed steadily since 1989, with minor fluctuations, reaching an estimated annual total of \$550 million in 1999. After growing very rapidly from 1989 to 1993, it grew at an average annual rate of 6.5% between 1993 and 1999. Residential investment accounted for roughly half of total investment in the sector: during the 1993–1999 period, for example, residential investment averaged 58% of total construction investment, gradually declining from 66% of the total in 1993 to 45% of the total in 1999 (Cámara Panameña de la Construcción, 1999).

All in all, macroeconomic conditions in Panama appear to be favorable for the housing market, and housing conditions, as we shall see below, are improving for a significant segment of the population. Still, the very poor as well, as the self-employed, must continue to rely on informal (and often substandard) housing solutions.

III. THE HOUSING POLICY ENVIRONMENT

In general terms, the housing policy environment in Panama can be said to be at the beginning of a transition from an interventionist mode to a more enabling one. The Government is still engaged in the construction and financing of housing, but there is a recent agreement between the Government and the International Monetary Fund (IMF) to liquidate the National Mortgage Bank (BHN) (Government of Panama, 2000, 4)—a decision that should lead to the end of construction and financing of housing by the Government in the coming years. The Ministry of Housing (MIVI), which is officially charged with the formulation and implementation of housing policy, is generally preoccupied with its own building program. It does not concern itself with the performance of the housing market as a whole and does not play an active role in formulating national housing policy and overseeing its implementation. Developers in the formal sector are now very active in low-cost housing production, relying on mortgage loans with preferential interest rates (a key intervention in the housing market that has little to do with the Ministry of Housing).

To understand the housing policy environment in Panama, we need to focus on its key components in greater detail.

The property rights regime. There are already established legal procedures for the regularization of squatter settlements in Panama, and there is a program of tenure legalization in the Ministry of Housing (MIVI). But the rate of regularization is low and the program is underfinanced. Of the total squatter population of 150,000 in the metropolitan area, 62% were on public land under the jurisdiction of the National Mortgage Bank (BHN), 32% were on private lands, and 6% were on lands belonging to various public authorities. According to Ministry statistics, approximately 1,400 occupied lots in the lands that reverted to Panama under the Torrijos–Carter Treaty of 1977 were regularized during 1994–1998, and 7,000 additional lots were in various stages of regularization in 1999–2000. There were approximately 12,500 illegally occupied lots on private lands in the metropolitan area in 1998. The regularization of these lots requires that the land be purchased from its original owner at its cadastral value. The total budget required for purchasing lots on private lands may be of the order of some \$12 million. According to housing ministry officials, the budget of the National Mortgage Bank (BHN) for land purchases in squatter settlements in 2000 was \$865,000, some 7% of the required total. Titling is thus proceeding very slowly, and, to make matters worse, the available documentation for much of the property portfolio of BHN is also incomplete, as is title documentation for apartments, houses and lots financed by the Bank.

The housing finance regime. In what ways does government policy facilitate access to housing finance? Panama has two established policies concerning housing finance for low- and middle-income housing: (a) preferential interest rates for low- and middle-income families; and (b) subsidized loans extended by the National Mortgage Bank (BHN). It has also attempted to introduce two new policies, backed by a loan negotiated with the Inter-American Development Bank (IDB) in 1996: (c) up-front one-time subsidies of up to \$4,000 to supplement a down payment and a 30-year mortgage loan at market interest rates; and (d) down payment guarantees that enable families to reduce their down payments from 20% to 2% for a 0.5% increase in the annual interest rate.

The most important policy affecting the availability of commercial housing finance is the preferential interest-rate program. Like the United States, Panama allows home owners to deduct mortgage interest rates of up to \$15,000 per annum from their income tax, and, since 1985, has supplemented this policy with a policy on preferential interest rates (to assist those who, because of their low incomes, do not benefit from the deduction). Loans of up to \$25,000 are repaid at an interest rate 5 points lower than the prevailing “reference” rate, loans between \$25,000 and 40,000 at 4 points below the prevailing interest rate, and loans between \$40,000 and \$62,500 at 3 points below the prevailing rate for the first 10 years. They are then paid at the “reference” interest rate for the remainder of the duration of the loan, but borrowers can then deduct interest payments from their income tax. The difference between the prevailing market rates and the

preferential rates is kept as fiscal credit by the bank issuing the loan, which is then subtracted from taxes owed by the bank.

The Ministry of Housing (MIVI) continues to issue housing loans for the units it constructs through the National Mortgage Bank (BHN), which is under its jurisdiction. As of January 1999 the Bank had a mortgage portfolio of some \$205 million, of which \$193 million was 40,000 long-term housing loans and \$12 million was 17,000 small loans for house improvements. House improvement loans averaged \$700, were notoriously difficult to collect, and thus exhibited very high levels of default. Of the 40,000 long-term mortgage loans, 4,300 loans had values greater than \$10,000 (an average of \$14,500 per loan). 41% of these loans were in arrears of 3 months or more. The remaining 35,700 loans had values less than \$10,000 (and an average of \$3,700). 46% of these loans were in arrears of 3 months or more. These loans were given at various fixed interest rates, depending on the type of project and the period of execution. Loans for apartments tended to be the most highly subsidized—interest rates for these loans averaged 3.0–3.25% in 1993–1994, for example. Loans for single-family homes and serviced lots tended to approximate market rates for most years. The Ministry does not yet have any practical plans to privatize or liquidate the Bank, nor does it have alternative means of financing housing (or for owning residential land and housing property, for that matter) in the event the Bank is liquidated as agreed with the IMF in 2000.

The 1996 IDB-supported program to provide up-front subsidies in conjunction with market-rate interest loans could not compete with the terms offered by preferential interest rates for any loan in excess of \$14,000. As of this writing, there were still no subsidies offered in conjunction with mortgage loans under this program. Given that the Government is not likely to phase out preferential interest rates in the near future, and given that this program is essentially designed to replace (not to supplement) preferential interest rates, its implementation in its present form is not a particularly high priority. The second IDB-supported program, the provision of down-payment guarantees, can indeed take advantage of preferential interest rates, but because borrowers can now regularly obtain loans with a 0–5% down payment, its higher interest rate discourages borrowers from taking advantage of it. The program requires the deposit of public funds amounting to 20% of the value of loans in participating banks, as a security against defaults. As of June 2000 the Government has allocated a total of \$13.4 million in loan guarantees (more than originally envisioned), and one bank in particular, Banco General, issued 85% of the loans under this program. Again, in the present climate in the mortgage market in Panama, this program does not appear to be a high priority. It is not fulfilling an important need, nor is it particularly well targeted. Several suggestions were floated in 2000 as to how to make it more attractive to banks and borrowers, most of them making the program more expensive, more regressive, and less appealing (Morris, 2000, 10–15).

Housing subsidies. The structure and volume of housing subsidies (as well as their sizes relative to incomes or to house costs) are critical dimensions of housing policy. Still, while it is relatively easy to enumerate the available types of housing subsidies, it is considerably more difficult to estimate their relative volumes, and still more difficult to assess the efficacy of their targeting. Given partial data, we can only roughly estimate the structure and volume of annual housing subsidies in Panama. Such subsidies are associated either with private-sector housing or with public-sector housing. The estimated present value of the annual subsidies for private-sector housing are on the order of \$90–100 million on a volume of residential construction of \$250 million (Angel, 2000e, 17–18). There are currently five major forms of subsidy for private-sector built housing in Panama⁸:

1. Preferential interest rates: The present value of the total annual interest-rate subsidy in 1999 was of the order of \$50–60 million⁹;
2. Deduction of up to \$15,000 of mortgage interest from personal taxable income: The total present value of this subsidy is unclear,¹⁰ but it should be on the order of \$5 million per year;
3. Property tax exemption on new houses: The total present value of this subsidy for houses produced in 1999 alone is of the order of \$35–40 million;
4. IDB-supported up-front subsidies to accompany a mortgage loan: There were no subsidies offered under this program in 1999; and
5. IDB-supported down-payment guarantees: To date, some 738 loans totaling \$10.9 million were issued under this program, and \$2.2 million were deposited by the fund in participating banks (Morris, 2000, 13–14).

Not only is the volume of these subsidies rather large in comparative terms, as we shall see below but individual subsidies are both high and regressive. The present value of the subsidy on a loan of \$62,500 (\$11,500, or 18% of loan value) is almost three times the present value of the subsidy on a loan of \$14,000 (\$4,000, or 29% of loan value). \$4,000 is also the maximum allowable up-front subsidy in the IDB-supported program at the Ministry of Housing (MIVI), which explains why it is not attractive as the preferential interest-rate arrangement for most current borrowers.

⁸There are two other forms of smaller levels of subsidy: (1) the exemption of new houses from the 2% transfer tax; and (b) the nontaxation of profits reinvested in housing.

⁹It is estimated that some 17,500 new mortgage loans were issued in 1999. If we assume, conservatively, that only 10,000 were given at preferential interest rates, and if we then assume, again conservatively, that the average value of a loan at preferential interest rates was \$20,000 (and, therefore, that the average value of a nominal subsidy was \$8,000), then the total nominal subsidy due to preferential interest rates in 1999 was on the order of \$80 million (\$57 million at present value).

¹⁰According to the Chamber of Construction, approximately 100 new houses were built in 1999 with values above \$100,000, and an average value of \$185,000. The nominal tax exemption subsidy for a house of this value is \$98,000 (\$51,000 at present value). The present value of the total tax exemption subsidy for these houses should be on the order of \$5 million.

TABLE II
Ministry of Housing (MIVI) Investment Program 1984–1994 (in \$)

Type of housing program	Number of units	Units per year	Cost per unit (\$)	Total investment	Percent of total
Apartments	3,936	394	7,747	30,492,803	41.8
Single-family houses	1,201	120	8,079	9,702,480	13.3
Core houses	1,002	100	4,886	4,895,410	6.7
Serviced lots	5,083	508	961	4,885,423	6.7
Basic lots	10,017	1,000	165	1,654,775	2.3
Squatter Legalization	4,277	430	493	2,117,997	2.9
House improvement	21,009	2,100	910	19,116,526	26.2
Total	46,545	4,655	1,565	72,865,414	100.0

Source. Conway *et al.* (1996a).

Subsidies on housing built by the public sector—mostly units built by the Ministry of Housing (MIVI) and financed by the National Mortgage Bank (BHN)—are of a quite different character. For the years 1984–1994, the structure and volume of these subsidies were analyzed by the Urban Institute (Conway *et al.*, 1996a). During this period the Ministry invested \$73 million in housing units for sale, serviced lots, squatter legalization, and home improvement loans. The structure of the Ministry's building program is summarized in table 2.

Generally, units were sold "at cost," that is, at their investment cost. According to Conway *et al.* these transactions included five kinds of nontransparent subsidies, totaling \$91 million, or 125% of the total direct investment cost: (a) the value of lands not included in urban renewal projects—\$13 million; (b) overhead costs of the Ministry not included in project costs—\$46 million; (c) losses due to sale of lands at prices below market value—\$8 million; (d) interest-rate subsidies—\$13 million; and (e) defaults on the payment of mortgage loans—\$11 million.

In recent years, the structure of the Ministry's program has remained basically the same, with one significant addition introduced in conjunction with an Inter-American Development Bank (IDB) loan in 1996—the building-kit program—to be discussed in greater detail below. The Ministry's budget for 1999 was \$23 million (\$12 million in operating expenses and \$11 in new investments). Its budget for 2000 was \$28 million (\$13.5 in operating expenses and \$14.5 in new investments).¹¹ The operating expenses of the Ministry are still very high. In the year 2000, for example, it employed a total of 1,349 persons, at an average annual operating cost of \$9,000 per employee.

¹¹The 1999 budget was supplemented by \$8 million from the IDB—\$4 million in new investments and \$4 million for institutional reform. The 2000 budget was supplemented by \$8 million from the IDB and an additional one-time \$25 million investment fund from the Central Government.

In broad terms, the Ministry of Housing (MIVI) is currently involved in six major public housing programs with varying direct costs, as well as varying nontransparent subsidies:

1. Urban renewal apartments (direct cost: \$14,000 per unit): the Ministry has been charged with solving the housing problems of tenants inhabiting overcrowded and old tenement houses in Panama City and Colón, many originally constructed to house the workers building the Canal. As of July 2000 there were altogether 6,800 families (70% in Panama City and 30% in Colón) living in some 700 buildings. Most families lived in condemned buildings (50%) and abandoned buildings (27.5%), while the rest lived in barracks, community homes, shelters, and temporary housing. The apartment building program of the Ministry has been trying to deal with this problem, but in general, it provided too little at too great an expense. The budget for the program in a typical year is sufficient for constructing some 60 apartments, less than 1% of the total number that need to be rehabilitated or replaced.

2. Single-family houses (direct cost \$9,000 per unit): This program is expected to produce 150 units per annum in a typical year, less than 1% of the estimated annual housing demand in the country.

3. Serviced lots (direct cost \$2,800 per lot): This program is also expected to produce some 150 units per year, less than 1% of the estimated annual housing demand in the country.

4. Building material kits (direct cost \$1,700 per unit): This IDB-supported program is presently the most active and the best targeted program in the Ministry under the new government, and the only one operating at a significant scale. It consists of a one-time subsidy of \$1,700 for a complete kit of building materials (minus sand and stones for the foundation) for a basic three-room 36-m² house with a concrete floor, concrete block walls, decorative block windows, and a corrugated iron roof. There is no running water or plumbing in the house. To receive the subsidy, the beneficiary family must own a plot of land and contribute transport and construction labor. As of December 1999, the program allocated some 14,842 building material grants totaling \$16.47 million. As of that date, 7,318 houses were reported to be completed (49%), and the rest (51%) were either incomplete or had no available information as to their status. The program aims to complete 5,500 units in the year 2000. It is mainly targeted to poor *rural* households throughout the country and currently does very little work in the metropolitan area.

5. Legalization of squatter settlements (direct cost estimate \$800 per unit): There is insufficient information on the budget allocated for this program in 1999 and 2000. The program involves the purchase of occupied lands by the National Mortgage Bank (BHN), at an estimated investment cost of \$1,000 per plot, a part of which can be recovered from beneficiaries. Public lands and lands belonging to BHN do not require purchase, and can be transferred to occupants at cost. The

level of subsidy per unit (basically, the value of the plot) should be on the order of \$800.

6. House improvement loans (direct cost estimate \$1,000 per unit): As noted earlier, the program has been in operation for many years, and has served some 20,000 or more families. Microfinance for house improvement is an important and necessary component of housing policy, but it is not clear at this time if this program, as it stands, fulfils this role. Its present level of operation is unclear as well, as are the hidden subsidies involved in below-market interest rates and high rates of default. Loan size is estimated to be of the order of \$1,000.

It is impossible to precisely estimate the total volume of subsidies in the present program of the Ministry, but given the above magnitudes, they should be on the order of \$20–25 million, per annum. This would bring the housing subsidy total to \$110–125 million, or 4.7–5.3% of government revenues—a very high value in comparative terms, similar only to that of Venezuela, and more than double that of most countries in the region. It is not clear that this volume of housing subsidies is sustainable in the long run. The preferential interest-rate program, for example, is limited by the level of the annual tax liabilities of participating banks; once the accumulated annual interest-rate deductions reach that level, no new loans can be issued using this venue. For the time being, however, as a result of these subsidies housing in Panama has become quite affordable in comparative terms, as we shall see below.

Residential infrastructure. The Ministry of Housing (MIVI) does not have an infrastructure-upgrading program in informal settlements and does not invest in upgrading.¹² It simply helps to coordinate the provision of infrastructure services by other public agencies. It does, however, have a program for providing serviced lots, with an unclear and inconsistent commitment to continuing it or expanding it. The Ministry is also responsible for preparing plans for the extension of the primary infrastructure networks in the metropolitan area and has prepared an infrastructure investment program for 1995–2020. The program projects an infrastructure expenditure-to-income ratio of 4.2 to 7.2%, a ratio in accord with similar ratios in other regions. The global median for the infrastructure expenditure-to-income ratio¹³ in 1990, which included the industrialized countries, was 5.9%. It was 4.1% in Latin America and the Caribbean, 7.9% in low-middle-income countries, and 4.9% in upper-middle-income countries. The extension of major infrastructure networks into the fringe of the metropolitan area, and specifically into the Northeast and the Northwest, is an essential component of urban development in general and residential development in particular. There

¹²The Inter-American Development Bank (IDB) is presently exploring a program (PN-0143) for upgrading marginal settlements in the municipalities of Panamá, David, and Colón.

¹³Defined as the ratio of the annual infrastructure expenditures per capita to the annual per capita household income.

is a real need to service the fringe area with better transport (and lowering commuting times, which now average 60 minutes) as well as with drinking water, electricity, drainage, and sewerage. There are already serious shortages of water supply on the urban fringe, holding back and constraining new residential development. These extensions of the metropolitan infrastructure network are essential for maintaining a steady supply of residential land within commuting range, as well as for maintaining stable land prices in the years to come. Future residential land development in the metropolitan area of Panama does, however, face serious environment constraints because the watershed areas feeding the lakes that are necessary to elevate and lower ships passing through the canal¹⁴ (and to provide water for the metropolitan area) need to be protected.

The legal and regulatory regime governing the housing market. A detailed analysis of the status of legal and regulatory reform in the housing market has not been possible. It appears that instead of relaxing building and land subdivision regulations to facilitate progressive housing solutions, these regulations have been made more severe and are now more stringently enforced than before. Attempts to reform the regulations have been taking place since 1990 [Conway and Fuentes, 1996b]. At the time of writing, there did not appear to be a demand on the part of builders of low-income housing to relax or streamline the regulatory process. It is estimated that the average amount of time required for obtaining permits for typical land subdivisions now stands at 3.5 months, a relatively short time in comparative terms.

The institutional framework for intervention in the market. The Ministry of Housing (MIVI) is in dire need of institutional reform. To become more efficient, equitable, and sustainable, it must stop building and financing housing directly. The government has agreed with the International Monetary Fund (IMF) that the National Mortgage Bank (BHN) must be liquidated in the near future, but this may be easier said than done. Its lending portfolio may not be easy to privatize before it is upgraded, and before better information is available on borrowers. The fact that it does not yet have a computerized information system is lamentable. Its real estate portfolio is also not in order, and many of the housing units built on its lands cannot be sold on the housing market because they do not have proper titles. All of this needs to be cleared up, and, as agreed, the relevant legislation must be presented to the Legislature before the end of the year 2000. At the time of writing, however, no single agency or person appeared to be responsible for preparing this legislation and for lobbying for its acceptance. This is a cause for concern. Moreover, since the BHN is an essential part of the Ministry—it is the only body that can own land, for example—it is not clear how the Ministry could function without it, even if it is reformed. The legalization

¹⁴On average, 5 million gallons of fresh water is drained from the lakes into the oceans to lift and lower one ship through the locks on the canal.

of squatter settlements, for example—an essential component of any future housing policy—requires the purchase of the occupied land by the Ministry (for now, by the BHN). What will happen to the legalization program if the BHN is liquidated is a question that is yet to be answered.

Second, the Ministry is involved in too many programs, most of which operate on a small and relatively insignificant scale. As a result, its staff is not used efficiently. More generally, as we noted earlier, its operating costs are exceptionally high—they exceeded new investments in 1999, for example. The 1996 IDB loan provided \$9.57 million (14% of the loan) for the institutional reform of the Ministry—mainly for staff reductions, and for the liquidation of the Bank—but, to date, none of these funds have been used and no reforms are in sight. The Ministry does not have a national housing policy that incorporates both private sector and public sector interventions (subsidies, regulations, and infrastructure) in a single policy whole. It is still myopically engaged in administering its own programs, and remains quite oblivious to the operation and performance of the housing market as a whole.

IV. HOUSING MARKET CONDITIONS

Housing market conditions form the third element of our simplified model of the housing market. There are three factors, internal to the housing market, that affect the supply and demand for housing in Panama and elsewhere: (1) the availability of land; (2) conditions in the residential construction sector; and (3) the availability of mortgage finance. These three housing market conditions are described in greater detail below. Housing market outcomes are detailed in the following section. Basic housing indicators that summarize both conditions and outcomes and compare them to other countries in the region, to conditions in Latin American and the Caribbean as a whole, to other lower-middle and upper-middle income countries with per capita Gross National Product (GNP) similar to that of Panama, and to conditions in the world at large are given in table 3.

The availability of land. Residential land in the metropolitan area is generally plentiful. Raw land on the urban fringe costs \$2–10 per m² in 1999. The sale prices (as distinguished from costs) of raw land plots of 200 m² by private construction companies varied between \$1,000 (\$5/m²) and \$1,800 (\$9/m²) in 1999. Infrastructure costs for a full complement of services varied between \$3,000 and \$5,000 per plot (\$15/m² and \$25/m²) (Ayerbe Gonzales, 1999, 47–52). These figures suggest that the cost of 1 m² of serviced land varied between \$15 and \$35. If we take \$25 per m² as a typical serviced land price on the urban fringe, for example, then the serviced land price-to-income¹⁵ amounted to 0.35%

¹⁵Defined as the ratio between the cost of one m² of serviced land on the urban fringe and the median annual household income.

TABLE III
Selected Housing Indicators, 1990–2000^a

Indicator	Panama City, Panama	Santo Domingo, Dominican Republic	Port of Spain, Trinidad	Guatemala City, Guatemala	Quito, Ecuador	Caracas, Venezuela	Buenos Aires, Argentina	Latin America & Caribbean Cities	Lower- middle- income countries	Upper- middle- income countries	The world
Dwelling units per 1,000 People	250	242	248	214 ^b	239	236	283	221	195	225	229
Median house size (m ²)	67	54 ^c	70.3	38	33.6	78	48	67	47	67	62
Floor area per person (m ²)	16	14 ^c	18.1	8	8.6	16	13.7	15.6	9.4	15.9	15.3
Urban density (persons per km ²)	5,835	9,500	—	6,400	9,200	6,000	4,814	5,700	6,300	6,600	6,600
Land registration (%)	80	60	—	50	55	35	90	70	78	100	100
Permanent structures (%)	90	89	91.3	87	71.3	89	93.4	90	94	97	97
Water connection (%)	90	96.5 ^d	78	88	94.1	90	82.6 ^e	91	87	98	95
Journey to work (minutes)	60	30	70	45	56	49	55	56	40	40	37
Infrastructure expenditure- to-income ratio (%)	7.2	2.3 ^f	—	8.9	9.1	—	—	4.1	7.9	4.9	5.9
Public housing (%)	0	0	4.6	0	0	38	6.1 ^e	10	12	22	12
Unauthorized housing (%)	15	60	65	44	30.0	—	15.8	26.4	27.1	9	15
Squatter housing (%)	12.2	40	8.5	29	7.5	40	4.9	25	16	4	4
Homelessness per 1,000 people	<1	<1	<1	3.9	0.6	5.0	<1	2.1	0.2	1.1	0.9
Owner occupancy (%)	77	60	67	61	79	67.6	83.8	65	59	57	55
The median house price (\$)	27,000	9,100	20,000	7,742	6,767	29,000	44,700	11,818	16,205	23,646	20,315
The house price-to-income ratio	3.75	1.1	2.7	1.6	2.4	5.7	3.5	2.4	4.5	4.4	5.0
The rent-to-income ratio (%)	25.0	21.1	11.4	22.0	12.5	15.0	27.0	19.8	16.2	14.6	16.2
Lowest-priced private- sector house (\$)	14,000	15,150	—	—	6,040	3,800	40,000	33,000	14,400	17,600	14,100

Down-market penetration	1.9	2.0	—	1.2	2.1	6.7	2.7	3.9	3.6	3.4	3.4
Cost of service land on urban fringe (\$ per m ²)	25	26	22	21	35	30	40	14	63	41	69
Serviced land price-to-income ratio	0.35	0.3	0.3	0.3	0.7	1.1	0.4	0.5	2.1	0.8	0.9
Construction cost per square meter (\$)	140	156	180	180	155	225	510	171	156	203	171
The housing credit portfolio (%)	22.8	13.4	—	7 ^g	20.1 ^f	<10	9.4	20	8	18	14
The mortgage-to-prime difference (%)	2.0	-2.0	-5.0	3.0	-20	14	6.0	3.2	0.5	-0.4	0.2
The mortgage arrears rate (%)	<1	2.4 ^h	—	5	3	5.8	1-4	6	10	5	5
New household formation (%)	2.55	3.5	1.13	3.0	4.2	1.56	1.2	3.1	3.9	2.7	3.1
Housing production per 1,000 people	9.4	7.9	4.6	6.2	9.3	5.8	6.3 ^e	6.0	7.7	6.1	6.5
Residential mobility (%)	—	—	—	1.5	3.4	5.6	—	3.4	5.0	4.4	7.1
The vacancy rate (%)	11.4	7.7 ^c	5.3	—	1.6	8.3	15.0	4.2	2.8	3.8	3.5

Note. Data for the Latin American and Caribbean countries, for lower-middle-income countries, for upper-middle income countries, and for the world at large are for 1990. Unless specifically indicated otherwise, data for cities are for 1998–2000 or from latest available census.

^a The sources for this table include UNHCS Urban Observatory, *Urban Indicators*, available at www.urbanobservatory.org and Angel (1998, 1999, 2000a, 2000b, 2000c, 2000d, 2000e, 2000f).

^b Data for 1994.

^c Data for 1981.

^d Data for 1998.

^e Data for 1997.

^f Data for 2000.

^g Data for 1994–1998.

^h Data for 1999.

of annual median household income in the metropolitan area. This ratio compares very favorably with median values of 2.1% and 0.8% in lower-middle and upper-middle income countries respectively, and with 0.5% for countries in Latin America and the Caribbean (Angel, 2000b, Table 14.1, 198). It suggests that serviced land in the metropolitan area of Panama is currently affordable. Most land slated for urban for development is private land. There is only a very small (and inadequately documented) inventory of public lands for residential development owned by the National Mortgage Bank (BHN), forcing the Ministry of Housing (MIVI) to buy land for its projects and for its tenure legalization program.

Conditions in the residential construction sector. The residential construction sector in Panama is currently undergoing a major transformation, from the previous construction of most of the stock as single houses on individually owned (or illegally occupied) land, to the construction of a larger share of the stock by developers of housing estates. Developers of housing estates have been increasing production by moving down-market in recent years, after largely meeting the demand for higher-priced housing. According to the Chamber of Construction, of a total 11,622 developer-built units in 1999, 69.7% were in the five urban districts: Panamá, San Miguelito, Arraijan, Chorrera, and Colón. In the metropolitan area of Panama, 58% of the single-family houses and 15.4% of the apartments built in 1999 were priced at less than \$20,000. The housing market is now facing demand-side, rather than supply-side constraints. Typical construction costs for finished low-cost houses are \$135–150/m². Building materials costs for the Ministry's building-kit program—a basic 36-m² unfinished house (concrete walls and floor and zinc roof, without plumbing, kitchen or bathroom)—amounted to \$1,700 (\$47 per m²). The price breakdowns of typical low-priced houses built by private developers in 1999 are given in table 4.

The availability of mortgage finance. There is ample supply of medium and long-term funds for lending for housing, and mortgage loans for up to 95% (and

TABLE IV
Price Breakdown for Low-Cost Houses Built by Private Developers, 1999

Cost item	Econoplade		Sucasa		Capac		Average	
	\$	%	\$	%	\$	%	\$	%
Land	1,800	12	1,800	10	1,000	6	1,533	9
Infrastructure	4,000	26	3,000	16	5,058	33	4,019	24
Construction	7,500	48	6,800	36	6,744	44	7,015	42
Other	2,300	15	7,200	38	2,699	17	4,066	24
Sale price	15,600	100	18,880	100	15,500	100	16,660	100

Source: Ayerbe, 1999, 47–52.

sometimes 100%) of the value of the house can be extended for up to 30 years. Private banks can attract and obtain medium term funds (typically 5-year terms), locally as well as abroad, and are willing to accept the risk of borrowing money in medium-term funds and lending long-term funds. The “reference” interest rate set by the National Banking Commission for regular mortgage loans was 9.75% per annum in 1999, a very low rate in comparison with other Latin American countries. Furthermore, as noted earlier, loans of less than \$25,000 had a 5-point government subsidy (deducted from the bank’s corporate tax), loans of \$25,000–40,000 had a 4-point government subsidy, and loans of \$40,000–\$62,500 had a 3-point government subsidy. These preferential interest rates made the cost of housing much cheaper than it would be otherwise and have accelerated the production of houses by the private sector, especially of houses costing less than \$25,000.

The volume and number of mortgage loans have been growing rapidly and moving down-market. The mortgage portfolio grew by 6% in 1997, 13.5% in 1998, and 15.1% in 1999, and the fastest growth in the market was in loans at preferential interest rates for new low-cost housing construction. According to preliminary figures from the Chamber of Construction, the number of new mortgage loans increased from 9,334 in 1997, to 15,028 in 1998, and to 17,489 in 1999, outpacing formal housing production. Banks also issued 4,344 loans of less than \$25,000 without preferential interest rates in 1999, probably for financing the purchase of older housing. The housing credit portfolio now forms 22.8% of the total banking portfolio, a higher percentage than the median values for Latin America and the Caribbean and for other countries with similar incomes. By December of 1999, the value of all mortgage loans in the banking system amounted to \$1.708 billion (Morris, 2000, 4).

Still, almost all borrowing for housing is presently restricted to salaried employees, and, since loans are deducted directly from salary checks through employers, it is generally not possible for a self-employed person to obtain a mortgage loan. The present practices of commercial banks clearly discriminate against nonsalaried persons, small business owners, and workers in the informal sector. And it is this obstacle—and not the absence of adequate income—that is currently the most significant barrier to the entry of low-income families into the formal housing market. In addition, it is still not possible to obtain a mortgage with preferential interest rates for used houses, and this constrains and distorts the resale market in residential properties.

IV. HOUSING MARKET OUTCOMES

Housing market outcomes in Panama can be summarized by focusing on five key dimensions: (1) house prices, rents and affordability; (2) dwelling units

and living space; (3) housing quality; (4) tenure; and (5) housing production and investment.

Prices, rents, and affordability. House prices and rents in Panama have been very stable. Overall housing inflation has been very similar to overall inflation, averaging 2% per annum between 1994 and 1999 (International Monetary Fund, 2000b, Table 14, 24). The median-priced house in the Panama City metropolitan area is a formal sector house, and its price is now of the order of \$27,000. New formal sector houses sell for as low as \$14,000, but not lower. If median annual household income in the metropolitan area was on the order of \$7,200 in 1997–8, then the house price-to-income ratio was 3.75. This value is higher than the median value for Latin America and the Caribbean as a whole,¹⁶ but lower than the median value in countries with similar incomes to that of Panama.

Given that families can buy a new house in the formal sector for \$14,000, the down-market penetration of the formal sector is impressive—in urban areas, only 2.1 annual median household incomes are necessary to purchase the lowest-priced new house on the market, a lower value than those found in most countries. In addition, given that houses in the \$14,000 to \$62,500 range qualify for very low preferential interest rates, new developer-built housing in Panama at present is relatively inexpensive. A 95% loan at the lowest preferential rate (now set at 4.75% per annum for a 30-year period) for a lowest-cost \$14,000 house would require a monthly payment of \$70. Given Panama's urban income distribution, if households were to pay up to 25% of their monthly income as a mortgage, this house would be affordable by 84% of the households in the metropolitan area and 77% of the households in urban areas as a whole. A 95% loan for a typical \$20,000 house, many of which are being produced at the moment, would be affordable by 71% of the households in the metropolitan area of Panamá and 65% of the households in other urban areas. This is an incomparable level of affordability for developer-built houses, both in regional and in global terms.

Dwelling units and living space. Residential construction activity in Panama outpaced population growth between 1990 and 2000. Preliminary figures from the 2000 Census show that, between 1990 and 2000, the number of occupied housing units grew by 29.0%, while the total population of the country only grew by 20.9% (Dirección de Estadística y Censo, 2000, Table 2, 4 and Table 16, 59). According to the latest census figures (Dirección de Estadística y Censo, 2000, Table 16, 59 and Table 24, 78–82) the number of dwelling units per person has increased significantly between 1990 and 2000, from 225 to 241 per 1,000 for the country as a whole, and from 237 to 250 in the metropolitan area.

The average number of rooms in a dwelling unit in 1990 was 2.9 for the country as a whole and 3.0 for the province of Panamá. The average number of

¹⁶Where, in some countries—the Dominican Republic, for example—median-priced houses are in the informal sector.

persons per dwelling unit was 4.3 for the country as a whole and 4.2 for the province of Panamá. The number of persons per room was therefore 1.48 for the country as a whole and 1.4 for the province of Panamá. Gross estimates of the floor area per person, 16 m², and of the median house size, 67 m², in the metropolitan area were obtained by correlating persons per room and floor area per person for a sample of 53 countries (Angel, 2000b, Table A22, 369)¹⁷ and corroborated by field observations and interviews. 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 in Panamanian cities.

Housing quality. As in practically all developing countries, there are the usual claims of a vast housing “deficit”—240,000 units in the case of Panama (Ministerio de Vivienda (MIVI), 1998g, 9)—usually mitigated somewhat by the acknowledgment that the most of the deficit is actually “qualitative” rather than “quantitative.” Still, such claims are questionable, relying, as they must, on an arbitrary standard. Housing quality in Panama is generally good. Most houses appear to be built of solid and permanent building materials, and are relatively new as well: The 1990 Census reports that 21% of all the units surveyed were less than 5 years old, and 23% between 5 and 10 years old. The 1990 Census also contains good data on the quality of housing: In the province of Panamá for example, where the bulk of the urban population was concentrated, only 7.1% of the houses had earthen floors, only 4.8% were without water, only 3.7% without sanitation services, only 11.7% without electricity, and only 18.7% without a television.

Tenure. Home ownership rates in Panama are very high: 83% in the country as a whole and 77% in the Panama City metropolitan area (Dirección de Estadística y Censo, 1990, Table 11, 101, 108). Home ownership has been growing steadily, and the rental housing stock has been gradually depleted. The rent control law is still in force, and there is virtually no construction of rental housing. According to the Social Development Division of the Ministry of Housing (MIVI), there were 260 squatter communities in the country in 1998, housing approximately 170,000 people.¹⁸ 214 of these communities, housing 93% of all squatters, were in the metropolitan area of Panama. They formed only 12% of the population of the metropolitan area—a lower percentage than the median value of 25% for Latin America and the Caribbean. There was no evidence of an active informal

¹⁷The correlation coefficient was found to be 0.48.

¹⁸A second and higher estimate, prepared by the Ministry in 1994, puts the total number of settlements in the country at 307 and their total population at 325,642, of which 68% are in the metropolitan area. A third and lower estimate by the Ministry for 1996–1997 puts the total number of settlements in the country at 206 and their total population at 118,923, of which 78% are in the metropolitan area.

land subdivision market, but it is suspected that some partially serviced lots are now being offered on the urban fringe for a price of \$800–1,500, to be paid in installments. There is generally no active squatting on a large scale in the metropolitan area at this time, and it appears that the formal sector is now the dominant sector in housing construction.

Housing production and investment. After the slump of 1989, when housing investment was down to some 7% of its current value, it climbed steadily and reached a plateau in 1993. Since 1993, annual housing investment has fluctuated between \$208 million and \$270 million, averaging \$237 million (Camara Pana-meña de la Construcción, 1999). Housing production in recent years has exceeded population growth and the rate of household formation, and since 1998 the number of new mortgages issued has exceeded formal-sector housing production as well. According to the Chamber of Construction, the formal sector produced 11,622 units in 1999 for a total estimated investment of \$246.7 million (an average investment of \$21,230 per unit). The number of developer-built housing units increased from 9,095 in 1997, to 11,051 in 1998, and to 11,622 in 1999, an average annual increase of 13%. Individually built houses, informal sector houses, and public sector production (mostly replacement units constructed by the building-kit program) may have added an estimated 9,500 to formal sector production.

According to the latest census (Dirección de Estadística y Censo, 2000, Table 2, 4–17), new annual net additions to occupied housing units in the metropolitan area (the districts of Arraiján, Chorrera, Panamá, and San Miguelito), for example, were estimated at 9,775 units in 2000, and total additions to the housing stock (including vacant and replacement units) were estimated at 11,915. The population of the metropolitan area in 2000 amounted to 1,267,452, implying an annual housing production of 9.4 units per 1,000 people. This rate of production is much higher than median values in Latin America and the Caribbean, in other countries with similar per capita incomes, and in the world at large.

Between 1997 and 1999, the net number of occupied dwelling units in the country increased by an average of 16,625 units per year (estimated from Dirección de Estadística y Censo, 2000, Table 16, 59). Assuming that 0.5% of the housing stock was replaced every year would add some 3,250 new units, and assuming that the vacancy rate is now half its 11.4% value in 1990 would add some 1,000 units per year, bringing the total to 21,000 per year. This implies that during 1997–1999, developer-built housing averaged 54% of total new production, and individually built houses amounted to 46% of the total, a much lower percentage than in previous years: A study conducted in 1994, for example, found that 73% of the houses in Panama City and 60% of the houses in David were built by their owners (Jacobs and Savedoff, 1999, 12).

V. PRIORITIES FOR HOUSING POLICY REFORM IN PANAMA

The key to housing policy reform in Panama is the reform of the Ministry of Housing (MIVI)—its mandate, its activities, and its organization—to make it more relevant and more effective in improving housing market performance in the country. The following recommendations focus on the key priorities for housing policy reform in Panama at the present time.

Institutional reform at the Ministry of Housing. The liquidation of the National Mortgage Bank (BHN) is a fundamental prerequisite for housing policy reform in Panama. And it must go hand in hand with preparations for the reform of the Ministry of Housing in light of the upcoming liquidation. The Ministry should be alerted to the need for immediate reforms given the possibility of liquidation—phasing out the direct construction and finance of housing units, securing a mandate for the conduct of a national housing policy, and refocusing its subsidy program on title regularization, progressive housing solutions, infrastructure upgrading, and subsidy vouchers associated with housing loans. To secure its mandate for the conduct of a national housing policy, the Ministry must collect, analyze, and publish data on the housing market in general, and on its subsidy programs in particular. A Housing Intelligence Unit should be created at the Ministry. The unit should closely monitor subsidy programs and produce annual reports that trace developments throughout the housing market in a systematic fashion.

Reviving and empowering the National Housing Council. The Ministry must take on a leadership role in the housing market—formulating housing policy for the market as a whole and overseeing its implementation. To secure its leadership role, it should activate the National Housing Council as a forum for bringing together all the key stakeholders in the market to formulate and oversee national housing policy. The legal mechanism for the creation of the National Housing Council exists (Republica de Panamá, 1991, Artículo 2). A reformed and reconstituted Council should bring together representatives from key ministries, key municipalities, the banking sector, the construction sector, the civic sector, and the community sector.

Introducing gradual housing finance reforms. While it will be politically difficult to phase out the preferential interest-rate subsidies in the near future, they can be made smaller and better targeted: the house-price ceiling on preferential interest rates, for example, can be lowered. Also, new mechanisms must be put in place to enable nonsalaried people to take advantage of housing finance subsidies. One such proposal was advanced in the year 2000 by the private sector—hire-purchase housing—whereby families rent houses for a few years to prove their credit worthiness, and then purchase them. The legal framework

for making this possible should be created and the practical problems of implementing it should be studied in greater detail.¹⁹ The older house-improvement-loan program run by the BHN has proved to be difficult to administer and plagued with high rates of default. In the future, such microloans should be administered by private banks—such as Mibanco—that are currently involved in microfinance.

Strengthening the squatter legalization program. Title regularization procedures are already in place in Panama, but they need to be simplified and accelerated. In addition, more financial resources must be directed toward acquiring occupied private lands at *real* market prices (taking into account the fact that these occupied lands cannot command the market price of adjacent vacant lands).²⁰

Improving infrastructure in informal settlements. At present, very few resources are spent in a coordinated fashion on infrastructure improvements. The Ministry should direct more subsidy funds to infrastructure improvements, and it should involve municipalities, community organizations, and NGOs in the process. This could be accomplished by providing subsidy vouchers to organized urban communities, to be used in bulk to pay for infrastructure upgrading. The upgrading work could be done with community-based organizations (CBOs), using nongovernment organizations (NGOs) as intermediaries. In squatter settlements, the infrastructure-upgrading program could be linked to the tenure legalization program.

Using vouchers for new serviced (or partially serviced) sites. The Ministry has been inconsistent in its provision of building lots, some years providing serviced lots, some years providing unserviced lots, and some years not providing any lots at all. The private sector now builds completed houses that sell for \$14,000 or more, prices that are not affordable by the first two or three deciles of the urban income distribution. A serviced (or partially serviced) site may cost anywhere from \$800 to \$3,000 and can be targeted at the lowest-income households. A serviced-site program can and should be supported by subsidy vouchers—to individual families or to organized communities—earmarked for the purchase of lots. These could be used for payment (or partial payment) for serviced lots on the urban fringe, to be provided by private-sector developers.²¹

Providing vouchers for house improvements in urban areas. As noted earlier, building material costs for solid houses in informal settlements range from as low as \$47/m², and a basic 36 m² house can be built for \$1,700. The private sector cannot compete with these prices and cannot now serve the people who

¹⁹For example, the cash flow problems of developers holding properties as rental properties before selling them could be solved by extending them five-year mortgage loans.

²⁰There may, therefore, be a need to establish improved procedures for determining the price of occupied lands.

²¹With additional finance, if necessary, to be provided by the developers themselves and repaid to them directly.

cannot afford completed houses. The building-kit program of the Ministry is clearly quite effective in accomplishing this goal at the present time, but it is mainly oriented to rural housing on individually owned plots. It is essential that a parallel program be developed for the metropolitan area. This program need not necessarily involve a building kit, but could utilize a more general subsidy voucher that could be of use to urban families with diverse housing needs—for example, house improvements, house extensions, or the construction of home—based businesses. These vouchers can, of course, be provided in association with microloans.

To conclude, the Ministry of Housing (MIVI) should shift its concern from direct supply of a limited number of housing options toward enabling the housing market as a whole to work in a more efficient, equitable, and sustainable manner. To this effect, it should monitor the performance of the market as a whole, as well as its key submarkets. It should focus on enabling activities that are best suited for public intervention in the housing market—the administration of the property rights regime, the subsidy regime, the regulatory regime, and the provision of residential infrastructure. And it should redesign its programs so that they operate through intermediaries in the construction sector, the banking sector, the civic sector, and the community sector, while significantly reducing its personnel (as well as its operating expenses).

VI. GENERAL GUIDELINES FOR HOUSING POLICY REFORM

The specific recommendations for the reform of housing policy in Panama are a particular subset of a more general set of guidelines for housing policy reform. These guidelines are, in an important sense, the core of the enabling approach to housing policy. This approach has been initially introduced in the United Nations' *Global Strategy for Shelter for the Year 2000*, adopted by the General Assembly in 1990. It was later developed in World Bank [1993] and in Angel (2000b). The list of guidelines presented below is an elaboration of an initial set of "Do's and Don'ts" presented in World Bank (1993, Table 1, 46–47).

The enabling approach to housing policy postulates that the ultimate objective of government intervention in housing is to improve the performance of the housing market and, in so doing, to maximize the contribution of the market to social and economic well-being. The goal of housing policy reform is to improve the efficiency, equity, and sustainability of government intervention in housing. More specifically, its objective is to transform government intervention in housing from the direct provision of a small number of public housing units—a policy that has been shown to be inefficient, inequitable and unsustainable—to *enabling* housing production, improvement, and finance through intermediaries in the private, civic, and informal sectors or by empowering families and communities to house themselves.

The establishment of an orderly *property rights regime* in housing is the cornerstone of housing policy reform. Its role in transforming the housing wealth of low-income households into capital has been recently articulated by De Soto (2000). Policy reform initiatives in this area may include: (1) Improving and streamlining urban property registration; (2) Improving the capabilities of the judiciary to settle property disputes; (3) Legitimizing the role of the informal sector in the provision of housing; (4) Creating a comprehensive legal framework for the regularization of tenure; (5) Creating and implementing an efficient tenure legalization program; (6) Discouraging new squatter settlement formation through the massive provision of minimally serviced sites; (7) Minimizing mass eviction and resettlement of existing communities; (8) Improving the registration and use of public lands; (9) Removing barriers to the free exchange of land and housing; (10) Maintaining a healthy policy balance between owner-occupied and rental housing; (11) Privatizing the public housing rental stock; and (12) Phasing out rent control and moving toward the establishment of market rents.

There is an undeniable economic logic in borrowing money to build or buy a house: a house should be paid for over a long period of time because it yields its services over a long period of time. The establishment, consolidation, and protection of an efficient, equitable, and sustainable *housing finance regime* is, therefore, the second critical component of an enabling housing policy. Policy reform initiatives in this area may include: (1) Phasing out lending at below-market interest rates; (2) Phasing out public mortgage-lending institutions; (3) Phasing out mandatory saving-for-housing schemes; (4) Reducing the lending-to-deposit spread of housing finance institutions; (5) Reducing mortgage credit risk through mortgage insurance and guarantees; (6) Improving the credit worthiness of lower-income households; (7) Facilitating the financing of hire-purchase housing; (8) Facilitating and streamlining foreclosure of mortgage loans in default; (9) Improving prudential regulations in housing finance institutions; (10) Creating a market for mortgage-backed securities; (11) Expanding the provision of credit for second-hand homes; (12) Expanding the availability of construction capital for historic center rehabilitation; (13) Employing indexation to keep mortgage loans affordable in the face of inflation; and (14) Increasing access to microfinance for home expansion and improvement, for home-based businesses, and for the addition of rental units to existing homes.

Housing needs—at standards considered to be minimally acceptable to society at large—can generally not be met without government housing subsidies. The establishment and maintenance of an efficient, equitable, and sustainable housing subsidy regime is, therefore, the third critical component of an enabling housing policy. Policy reform initiatives in this area may include: (1) Making all housing subsidies transparent and predictable; (2) Ensuring that housing subsidies are not regressive; (3) Targeting the bulk of housing subsidies at below-median-income households; (4) Focusing housing subsidies on demand-side subsidies; (5) Abandoning public housing and minimizing supply-side incentives to formal-sector

builders; (6) Mandating a fixed share of government revenues for housing subsidies; (7) Operating subsidy programs at scale by reducing per-household subsidy levels; (8) Maintaining a balance between place-based and household-based housing programs; (9) Maintaining a balance between new housing and existing housing subsidies; (10) Using housing subsidies to leverage household savings and mortgage finance; (11) Reducing taxes and transfer fees on new residential construction; and (12) Introducing effective property taxation.

Housing quality, as well as affordability, increases when it is properly served by infrastructure networks—roads and walkways; water, sewerage and drainage; power and telecommunications—and when houses are accessible to jobs, schools, and markets through an efficient transport system. The establishment of an efficient, equitable, and sustainable *residential infrastructure* system is, therefore, the fourth critical component of an enabling housing policy. Policy reform initiatives in this area may include: (1) Making adequate infrastructure investments for timely urban expansion; (2) Ensuring a steady supply of affordable land for new housing development; (3) Upgrading and maintaining infrastructure systems in all established communities; (4) Reducing environmental risk in residential areas through public works; and (5) Increasing cost recovery of urban infrastructure investments.

An effective *regulatory regime*—practical, equitable, and enforceable laws and regulations that affect the timely conversion of rural to urban land, the location of residential communities, land subdivision and development, and house construction—is the fifth critical component of an enabling housing policy. Policy reform initiatives in this area may include: (1) Reducing regulatory complexity and increasing adherence to building regulations; (2) Streamlining the permit-granting system; (3) Legitimizing the progressive development of land subdivisions and houses; (4) Removing regulatory barriers to the addition of rental units to existing homes; (5) Removing regulatory barriers to the creation of home-based businesses; (6) Removing regulatory barriers to timely urban expansion; (7) Removing regulatory barriers to the entry of new firms into the building industry; (8) Improving adherence to structural safety standards in disaster-prone areas; (9) Reserving and protecting adequate amounts of green “wedges” (rather than green “belts”) from urban expansion; and (10) Creating and maintaining legal protections for historic town centers.

The sixth and final critical component of housing policy reform in the transformation of the *institutional framework for government intervention* in the housing market, from engagement in the direct provision of housing into enabling institutions that oversee and guide the housing market as a whole, and that only engage in housing production, improvement and finance through intermediaries. Policy reform initiatives in this area may include: (1) Enshrining in law the enabling and facilitating role of government in housing; (2) Phasing out direct provision of housing by housing agencies; (3) Phasing out government mortgage institutions; (4) Using intermediaries for the production of serviced sites and new

houses; (5) Increasing competition as well as risk-taking in the residential construction sector; (6) Increasing the involvement of municipalities and provinces in housing programs; (7) Strengthening community-based organizations and engaging them in housing and residential infrastructure activities; (8) Creating a forum for managing and overseeing the housing market as a whole; (9) Coordinating housing policy with macroeconomic, social, and urban policies; and (10) Monitoring housing market performance, housing programs, and housing policy reforms regularly with a set of housing indicators.

CONCLUSION

This paper provided an outline for a rapid assessment of a national housing market, as well as a method for systematically investigating and assessing the needs for housing policy reform. Based on World Bank (1993) Angel (2000b), and numerous supportive studies cited above, the essence of housing policy reform is a gradual transformation of government intervention in the housing market from an interventionist mode to an enabling mode. The rapid assessment described here is indeed based on this fundamental assumption. This does not imply, however, that we can proceed to recommend housing policy reform along this path without further study. Further research is essential to demonstrating—more convincingly and more conclusively—that enabling housing policy environments indeed result in improved housing outcomes. More specifically, there is no question that more research is needed into the effect of improved property rights regimes, housing finance regimes, subsidy regimes, residential infrastructure systems, regulatory regimes and institutional arrangements on housing market performance. And while some good work on these important subjects is already available (see, for example, Malpezzi (1999) for a review of regulatory impacts), much still remains to be done. Given more robust and systematic results on the relationships between policies and performance in the housing market—as well as more complete matrices of comparative indicators—the rapid assessment described here may provide an important tool for housing policy reform, particularly in the presence of windows of opportunity for reform that do not allow for examining housing policy and the housing market at a leisurely pace.

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