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**An Assessment of Housing  
Deficit, Housing Informality  
and Usage of Housing  
Programs in Uruguay**

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## Abstract<sup>1</sup>

This document surveys the Uruguayan housing market, first describing the main housing programs and policies, then comparing their design with households' characteristics and needs. The document additionally measures Uruguay's housing deficit, using the basis deficit as well as quantitative and qualitative deficits, and provides a definition of housing informality that captures most irregular housing situations, thus delineating the size and attributes of the informal housing market. Considering both the housing deficit and informality permits an understanding of which population segments have the most urgent housing needs and whether they are currently eligible for participation in housing programs. Finally, the study considers how many households eligible for housing programs actually make use of them. Uruguay's housing programs do not necessarily target those who actually need them. On the other hand, although eligible households have housing deficits that could be addressed through the use of specific housing programs, program usage remains low.

**JEL classifications:** I38, O54, R21, R28, R31, R38

**Keywords:** Housing market, informality, housing deficit, housing policies, Uruguay

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<sup>1</sup> This paper was prepared in conjunction with the Inter-American Development Bank's 2012 Development in the Americas report on housing. Magdalena Ramada-Sarasola is affiliated with Universidad ORT Uruguay. Natalia Garabato is a doctoral candidate at the School of Economics of the University of New South Wales.

# 1 Introduction

Housing markets are known to be complex and to encompass different dimensions. First, housing markets are usually segmented and differ depending on their geographic location, average household income, and the ownership mode through which dwellings are accessed. Second, in developing countries like Uruguay, housing markets are subdivided into formal and informal markets. Each segment of the housing market displays different needs and demand patterns that have to be understood in order to adequately design housing policies. This technical note aims to provide a clear picture of the different segments' housing needs and the extent to which current housing programs in Uruguay are reaching the households that most need them by mining the data of the Uruguayan Expanded National Household Survey (ENHA).<sup>2</sup> This study therefore provides a detailed description of the Uruguayan housing market, distinguishing between the formal and the informal housing market. It first describes the main housing programs and policies available in Uruguay, and then matches their design to the characteristics of Uruguayan households and their housing needs.

Section 2 describes the existing public policies on housing, looking at the different types of programs available and their current implementation. Section 3 analyzes the demographic attributes of households in the ENHA data. In Section 4 the size of the Uruguayan housing deficit is assessed, by introducing a third type of deficit—basis deficit—to the two traditional types of deficits—quantitative and qualitative—usually referenced in the literature. In Section 5, the study derives a definition for housing informality that allows capturing most irregular housing situations, so that a clear picture for the size and attributes of the informal housing market can be derived. By combining housing deficit and informality, it assesses which part of the population has the most urgent housing needs, as well as whether those households are currently part of the population eligible for housing policies.

Finally, in Section 6 the study also determines the different subsamples of the population that could have access to housing policies through different type of programs, based on the programs' eligibility criteria. It further assesses eligible households' current housing conditions and the extent to which these groups are making use of those programs. Section 7 summarizes the paper's findings. The study finds that housing programs in Uruguay do not necessarily target those who actually need them. On the other hand, we also conclude that Uruguayan households display a

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<sup>2</sup> Encuesta Nacional de Hogares Ampliada.

certain degree of inertia in overcoming housing conditions that do not match their needs, despite having the means to do so. In fact, even though a large proportion of eligible households display housing deficits that could be addressed through the use of specific housing programs, program usage remains low.

## **2 Uruguayan Housing Policies and Programs**

The Uruguayan Ministry of Housing, Regional Planning and Environment (Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente, MVOTMA) is in charge of defining and implementing Uruguayan housing policies and programs. As part of the MVOTMA, the Uruguayan National Housing Directorate (Dirección Nacional de Vivienda, DINAVI) is responsible for generating a housing policy that is aligned with other social policies and that allows effective access by the population to appropriate housing. It should also coordinate and articulate the actions of public and private entities with respect to housing. As part of its objectives, the housing policy defined by the DINAVI should ensure that: a) existing housing is appropriate and meets the needs of the population; b) new housing is generated; and c) the poorest sectors of the population have access to appropriate housing as well as the means of keeping and maintaining it.

In that sense and as a way of implementing the above the MVOTMA defines quinquennial housing plans that account for the above objectives, making a qualitative and quantitative assessment of the implementation and results of the previous housing plans and defining housing policies and programs for the next five years. The quinquennial housing plans were created by law and have been designed and implemented ever since (Law 16.112, 1990).

The National Housing Agency (Agencia Nacional de Vivienda, ANV) created through Law 18.125 (2007) is a new government body that is in charge of translating quinquennial housing plans into actions and that implements housing policy as a decentralized body. It hence executes housing policies stemming from the MVOTMA and manages all public financial resources related to housing. It is also responsible for the generation of financial instruments that enable the development of a sustainable private mortgage market and for creating a system that allocates differential housing subsidies, which match the housing needs and the financial possibilities of households. Its obligations and objectives to some extent overlap with what was previously defined as the Integrated System of Access to Housing (Sistema Integrado de Acceso a la Vivienda, SIAV) and with the previous role of the DINAVI itself. The latter's role has now been

redefined as an overseeing body that controls and evaluates the provision of housing and the execution of housing policies, as well as the housing situation in general, together with technical assistance of the Uruguayan Public University, in what has been called a “Housing Observatory.”

Uruguayan housing policies encompass four types of programs. The first type of programs addresses the needs of certain sectors of the population for the provision of rental guarantees, since the absence of real guarantees prevents these sectors from accessing housing solutions in the formal rental market. The second type provides small loans for construction materials for legal owners of land or property that want to expand, renovate or construct a housing property mainly through self-construction. The third type aims at enabling the continuance of households in their current housing properties through micro-loans for renovation and expansion, as well as through specific re-payment and regularization policies for indebted households. The fourth type is designed to grant access to ownership of a housing solution for households that are not yet owners of any type of landed properties.

### ***2.1 Rental Guarantee Fund***

The Rental Guarantee Fund (Fondo de Garantía de Alquileres, FGA) is a public funded fund, that can be used by households with a disposable income of less than 100 readjustable units,<sup>3</sup> which are able to pay a rent and which do not have any real or personal guarantees that can be used as rental guarantees. The FGA can only be used for the rental of housing units that are going to serve a housing purpose. The total rent cannot exceed 21UR and must be less than 30 percent of the household’s disposable income.

To access this program the households head must be at least 18 years of age and must be able to prove their income through a legally certified, sworn declaration of income, in the case of independent workers, or by submitting pay stubs from the three most recent months of employment for salaried workers. Households that own any type of landed property, have been granted a housing solution or subsidy by any public housing program, or are debtors of the FGA are not eligible for this program.

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<sup>3</sup> Readjustable units (*unidades reajustables*, UR) are units of account created by Law 13.728 in 1968 that are used as accounting units for mortgage loans, among others. The UR value is corrected monthly taking the changes of the average wage index into account. Its current value in Uruguayan pesos is 463.56 (June 2010), i.e., around US\$23.

## **2.2 *CrediMat***

The CrediMat Program was launched in 1996 as part of an agreement with the German Kreditanstalt für Wiederaufbau (KfW). It is accessible to households with a disposable income of less than 100UR, and it is designed as a self-sustaining program. It was initially funded with US\$7.4 million provided by KfW. Through CrediMat, households can request small loans of a maximum of 250UR, to be repaid in a maximum of 37 payments and at rates that cannot exceed 20 percent of the household's disposable income. The loan must be used to purchase construction materials, and up to 40 percent of the loan can be invested in contracting help for the building or renovation process itself. These credits mainly target households that need help to purchase construction materials, which will be used to improve housing conditions—to expand, renew, or build new dwellings through self-help housing construction.

The prerequisites for applying for these loans are proof of income, a list containing specification of costs from a building supply store, and not being registered as having delayed or unfulfilled obligations in the centralized information service “Clearing de Informes,” a credit bureau<sup>4</sup> which provides this type of information on debtors to its affiliates. Further, households applying for these loans must have legal ownership or right of use of the property to be expanded or renewed or of the land upon which the household plans to build.

## **2.3 *Policies for Housing Continuance***

A major problem that has been detected among poorer households in Uruguay is not only the difficulty of accessing housing, but also the inability of these households to maintain and hence remain in their homes. The financial crisis of 2002 made this even clearer, when poorer households turned to informal housing as a means of survival. In response, the MVOTMA has developed four programs, which aim to either assist households facing financial distress that makes it difficult for them to make mortgage payments (with certain characteristics), providing funds to improve housing conditions in deteriorated buildings, or assisting those who need to expand their housing unit to meet their needs.

The first type of program of this class provides loans for the expansion, renovation, or refurbishing of owned housing units. The maximum amount granted is 1000UR, and applications for these loans is channeled through the National Mortgage Bank (Banco Hipotecario del

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<sup>4</sup> Owned by Equifax since 2001.



Uruguay, BHU). The second type of program grants micro-loans for refurbishment through so-called Urban Rehabilitation Offices (Oficinas de Rehabilitación Urbana), which are installed for a period of three to five years in certain neighborhoods. In the past 15 years, these offices have been placed in the following Montevideo neighborhoods: Barrio Sur (1998-2003), Reus Norte (2003-2009), Peñarol (2005-2009), in Ciudad Vieja and Palermo since 2006, and in Casco del Cerro since 2009. The maximum amount of these loans is 180UR, to be repaid in a maximum of 60 payments. Households applying for them must have a disposable income above 30UR and below 100UR.

The other two programs assist individual debtors as well as housing cooperatives of mutual support and savings that cannot meet their mortgage obligations. In the case of housing cooperatives that have taken out loans collectively, the program includes lower interest rates and subsidies in cases of financial distress. For individual debtors risking default, the MVOTMA, in collaboration with BHU and the Ministry of Economy and Finance (MEF), has launched a continuance subsidy for households that belong to housing cooperatives. This subsidy can be applied for by households whose mortgage rates have surpassed 20 percent of their disposable income (due to a decrease in income). The subsidy covers the difference between 20 percent of the household's income and the mortgage payments for a period of one year. If the lowered income persists, an extension of this subsidy can be requested for another year.

## ***2.4 Policies for Access to Ownership***

Home ownership is fostered through three types of initiatives: the provision of public housing, the provision of subsidies and loans to housing cooperatives, and individual loans and subsidies for the purchase of existing housing units.

### ***2.4.1 Purchase of Existing Housing Units***

This program allocates resources from the National Housing and Urbanization Fund (Fondo Nacional de Vivienda y Urbanización, FNVU) into loans and subsidies for households that want to purchase a housing unit in the formal housing market. The unit to be purchased must have been categorized as “economy” class. The amount of the loan and/or subsidy is directly related to the household's disposable income and the amount of its previous savings that can be devoted to the purchase of the housing unit. Eligible households do not own any landed properties and their disposable income is more than 25UR (in Montevideo and Canelones; 15 for the other

Departments); and less than 60 UR (75 in some exceptional cases). The head of household must be between the ages of 18 and 55, and the household must have at least one child under 18 and/or one disabled person. More details are provided below in the subsection presenting the SIAV.

#### *2.4.2 Programs for Housing Cooperatives*

Housing cooperatives were created and regulated through Law 13.728 (1968). They establish an association of a minimum of 10 and a maximum of 50 households<sup>5</sup> that collaborate to provide new housing for their members based on mutual support, savings, and self-help housing construction. Housing cooperatives must be registered in the national register of cooperatives to be acknowledged as such. These cooperatives are entitled to retain 20 percent of members' income to finance the housing initiative, and they can apply for public funds collectively. Their members must have a maximum disposable income of 60UR.

#### *2.4.3 Public Housing*

Finally, the MVOTMA has funds that are designed to address housing deficits through the supply side, since they are directly devoted to the construction of housing units. These units are then allocated to households that are registered in the National Registry of Applicants (Registro Nacional de Postulantes, RNP), and that are ranked according to certain social and economic criteria. The different projects are carried out by private and public institutions that bid against each other in public tender procedures. Since 1993 an overall program—the Integrated System of Access to Housing—was implemented to ensure that the allocation of this type of housing is transparent and fair.

### ***2.5 The SIAV as a Program Umbrella***

The Integrated System of Access to Housing (SIAV) is the mechanism through which direct housing subsidies and loans are provided, in the spirit of the abovementioned programs. It began as an umbrella organization for housing programs enabling ownership in 1993. Households with a disposable income of less than 60UR can apply for two types of solutions: the first is a supply-side solution, which provides a full housing subsidy only usable for so-called Expandable Basic Nucleus or Improved Expandable Basic Nucleus (Núcleo Básico Evolutivo (NBE) and Núcleo

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<sup>5</sup> For recycling cooperatives—recycling a larger housing unit and transforming it into several individual units—the minimum number of households is reduced to six

Básico Evolutivo Mejorado (NBEM), respectively). NBE and NBEM are program-provided social housing units. The size of an NBE is 30 square meters with walls of a width of 15cm, while the NBEM is 32 square meters, with 30cm-thick walls and foundations designed to allow for the unit's expansion. The second type of solution is a Housing Subsidy Certificate (Certificado de Subsidio Habitacional, CSH) which can be a class I, II or III, depending on the family's disposable income (31-44UR; 45-54UR, and 55-60UR, respectively) and can be used in NBEs or NBEMs or in housing solutions available on the regular formal housing market.

As additional prerequisites for eligibility for a housing subsidy, households must be registered at the RNP and they must have accumulated a certain level of prior savings—usually at the BHU—during a specified time horizon. Among applicants, households are selected to receive the housing subsidy based on a point system. The criteria for the point system include the effort made by the household to save, measured by the length of time and the amount saved weighted by a factor reflecting the family's socioeconomic background, and the household's size. Households with an income below 30UR can access a housing subsidy that covers almost the entire cost of the housing unit—which in most cases will be a NBE/NBEM—and will therefore have no need to complement the subsidy with a mortgage. Larger and more expensive housing solutions can be purchased through the modality of a CSH, complemented by a BHU mortgage, according to the values in Table 1.

For the NBE/NBEM type of subsidies, applicants receive a certificate, valid for 18 months, that can be used to acquire either a NBE/NBEM (built for the SIAV by private firms as tenders) or a new or used housing unit on the formal housing market, or to build a new dwelling. For type I, II, or III subsidies, applicants receive a CSH and must also demonstrate that they have prior savings and a mortgage loan from a public or private financial institution authorized to operate under the SIAV.

**Table 1. Housing Solutions provided by SIAV**

Income in UR	Housing Subsidy	Max. Value of Housing Unit	Prior Saving (min) in UR	Subsidized Amount (UR)	Mortgage Loan (UR)	Duration (years)	Monthly Rates (UR)
0-30	NBE/NBEM	1150	5	1150	0	5	2
31-44	Subsidy I	1850	65	853	932	25	6
		2190	65	853	1272	25	8.1
45-54	Subsidy II	2210	165	725	1320	25	8.5
		2450	165	725	1560	25	10.05
55-60	Subsidy III	2550	372	548	1630	25	10.5
		2700	372	548	1780	25	11.46

Notes: Source: MVOTMA (2005).

Notes: Figures applied in the Five-Year Housing Plan 2005-2009.

According to MVOTMA (2005), more than 50 percent of the SIAV's resources are allocated to programs for households with incomes of less than 30UR. Moreover, 80 percent of the resources were granted for housing solutions upcountry, while only 20 percent were used in Montevideo. Most housing assistance was used for renovation (36 percent) and refurbishment (39 percent), while only 9 percent were devoted to the purchase of new dwellings, and the remaining 16 percent were used for expansion.

## **2.6 Other Governmental and Non-Governmental Housing Programs**

### **2.6.1 National Mortgage Bank (BHU)**

The National Mortgage Bank (BHU) is a state-owned bank that had a monopoly on mortgage lending until 1996. After that year, it still provided up to 80 percent of the country's mortgage lending (Gandelman and Gandelman, 2004). This changed dramatically after the Uruguayan financial crisis of 2002. A rigorous restructuring process began in 2002, and it was only in 2009 that BHU resumed its activities as a financial intermediary. During the 2002-2009 period, BHU practically suspended all mortgage lending activity and only provided mortgage loans through selling its existing (and BHU-owned) housing units.<sup>6</sup>

Before 2002, BHU had two main types of mortgage loans: loans for the construction of housing units and loans for the acquisition of existing dwellings. The conditions for these loans in terms of interest rates, term, and currency denomination saw significant changes over time, evolving towards variable interest rates and credits in inflation-indexed units. The loan conditions diverged further for accredited bank savers and those who did not have a BHU saving account.

<sup>6</sup>See Moody's Investors Service (2009).

Accredited BHU depositors are those with a savings account at BHU. These accounts entitle its owners to earn “saving points,” which are a prerequisite for a mortgage loan under certain more privileged conditions. These conditions include larger credit amounts, longer terms, and lower interest rates. Although savers are allowed to withdraw their savings at any point, if they do so for non-housing-related reasons, all saving points are lost. The rationale behind this was to have a better process to select borrowers, since the latter would have proved their saving ability over a period of at least two years. These processes notwithstanding, the bank displayed the highest loan default rates of the Uruguayan market, and this was partly why it had to be bailed out and restructured after the 2002 financial crisis. The absence of BHU as the main mortgage lender strongly impacted Uruguay's mortgage market, with lending rates falling way below regional benchmarks, as well as Uruguay's historical lending rates (Gandelman and Gandelman, 2004; Ramada-Sarasola and Garabato, 2011).

Besides its role as main mortgage lender, BHU used to build and provide housing solutions, which were eligible for purchase by its accredited savers. As part of the bank's restructuring, BHU agreed to cease building and providing housing solutions, and that its mortgage lending activity would be limited to providing mortgage loans. Initially, loans would only be granted to people with two years of previous savings (in a BHU account) and for housing solutions within the Montevideo area.

Because several housing programs have been channeled through BHU in the past, and because of its many advantages over private banks, BHU has always been considered to be one of the main players shaping Uruguayan housing policies. Still, since it now operates in a similar fashion to private banks offering mortgage loans, it cannot necessarily be considered part of government housing programs.

### 2.6.2 *MEVIR*

MEVIR (Comisión Honoraria Pro-Eradicación de la Vivienda Rural Insalubre) is a non-departmental public body, founded in 1967, that supports programs that generate new housing in rural areas through self-help housing construction and mutual assistance. Rural workers and small family-owned farming businesses with a disposable income of less than 60UR are eligible for these programs.

At first, programs only supported the generation of new housing units. Currently, they also allow the funds to be used for the renovation and repair of housing units and mixed-use buildings used partially for housing purposes, and for the improvement of community services and infrastructure such as water, electricity, and sanitation. The source of MEVIR's funds is the National Housing Fund (instrumented through the MVOTMA), as well as taxes on rural transactions, government funding, and private donations. Loans are partially subsidized and participants repay the rest of the loan in installments (depending on the total amount borrowed). In addition, they contribute hours of labor in the construction of housing units. The construction of housing units and housing renovation work must be done through self-help construction and mutual assistance.

MEVIR supports three main types of programs. The first is a program for grouped housing units which targets low-income families that do not own either land or dwellings. The program builds both housing units and streets, sanitation and sewerage systems, provides access to electricity, and builds common rooms and recreation and green areas for the newly created neighborhood. All the work is executed through self-help construction and mutual aid. The second type of program builds new productive units for low-income small, family-owned farming businesses in which part of the unit may include dwellings. Finally, there is a program that supports self-help construction of dispersed housing units.

### *2.6.3 Programs of the Social Security Bank*

The Social Security Bank (Banco de Previsión Social, BPS) has housing programs that are especially designed to provide housing solutions for pensioners and retirees. The BPS has four types of programs to provide housing solutions for these groups. In all of these programs, the BPS manages the selection and allocation of housing solutions, built and provided by the MVOTMA, to eligible retirees and pensioners. To develop these programs, the BPS works with a special entity within the MVOTMA,<sup>7</sup> and as part of their joint activities the common areas and services of these housing solutions are maintained, improved, and repaired.

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<sup>7</sup> Called "Soluciones Habitacionales para Jubilados y Pensionistas del Banco de Previsión Social." See [http://www.mvotma.gub.uy/dinavi/index.php?option=com\\_content&view=article&id=106&Itemid=138](http://www.mvotma.gub.uy/dinavi/index.php?option=com_content&view=article&id=106&Itemid=138), accessed August 20, 2010.

The most important program is designed to provide new housing units. Eligibility criteria for this program imply that applicants are retirees or pensioners<sup>8</sup> and legal residents and that their disposable income is below 12UR.<sup>9</sup> Further eligibility criteria are not being owner, co-owner or legal usufructuary of any housing provided by housing programs, albeit public or private. In addition, applicants must be able to live and care for themselves without needing the help of third parties. In the period 1990 to June 2010 a total of 5,746 dwellings were provided under the new housing programs for retirees, of which 2,514 were in Montevideo. Of these new units 69 were houses, 61 were Expandable Basic Nuclei, and the rest were provided as part of 69 apartment buildings.

The second type of program subsidizes the rent of retiree tenants. This is a new program, started in 2009,<sup>10</sup> which helps the low-income elderly to pay their rent. The rent to be paid can be up to 12UR. Since its inception in March 2009 until June 2010, 233 retiree or pensioner households were supported through this program.

A third program supports and subsidizes nursing homes.<sup>11</sup> This type of subsidy is only applicable for retirees and pensioners who have already accessed housing through BPS programs, but who are now unable to take care of themselves due to a medical condition or disability. The subsidy covers 30 percent of the cost of a nursing home, which must be a not-for-profit nursing home with a previously signed agreement with the BPS. As part of these programs, the BPS also supports the improvement and maintenance of nursing homes.

Finally, the most recent program launched, in conjunction with MEVIR, allows rural retirees to access rural housing so that they are able to stay in a familiar environment, close to their relatives.<sup>12</sup>

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<sup>8</sup> Some types of pensioners are excluded, e.g. those receiving a pension for the elderly or pensions due to a disability.

<sup>9</sup> Note that for certain locations upcountry, the maximum disposable income is 24UR. These locations are in Canelones (Canelones, Santa Lucía, Los Cerrillos, San Bautista, Las Piedras, San Ramón, La Paz), Colonia (Nueva Palmira, Carmelo, Colonia Valdense, Juan Lacaze), Flores (Trinidad), Florida (Sarandí Grande, Cardal), Llavallija (Zapicán), Río Negro (Fray Bentos), Rivera (Minas de Corrales, Vichadero, Tranqueras), Rocha (Lascano, Castillos), Salto (Constitución, Col. Llavallija), San José (Mal Abrigo), Soriano (Cardona), Tacuarembó (Paso de los Toros), Treinta y Tres (Capital Deptal. Treinta y Tres, Santa Clara de Olimar).

<sup>10</sup> See Decree 436/2009.

<sup>11</sup> See Decree 360/2004.

<sup>12</sup> See <http://www.bps.gub.uy/Jubilados/DO/SolucionesHabitacionales.aspx?menu=DOJubilados>, accessed August 20, 2010.

#### 2.6.4 *PIAI*

In addition to the above, the Program for the Integration of Irregular Settlements (Programa de Integración de Asentamientos Irregulares, PIAI) is a specific program aimed at the integration and regularization of irregular settlements, which falls under the central Office of Planning and Budget (Oficina de Planeamiento y Presupuesto, OPP) and was created as part of the agreement signed in 1999 between the Uruguayan Government and the Inter-American Development Bank (IDB), under project number UR0123 (Loan 1886/OC-UR, 1999). The program is executed in coordination with the MVOTMA, the Ministry of Transportation and Public Works (Ministerio de Transporte y Obras Públicas, MTOP), the Ministry of Social Development (Ministerio de Desarrollo Social, MIDES), and departmental governments.

Among the objectives of the PIAI are the improvement of the infrastructure in and around informal settlements—including water supply, sewerage, roads, electric power, and street lighting—and their community facilities. It also aimed at regularizing legal ownership status and resettlement plans. The criteria for selecting settlements to be integrated are that more than half of the housing units have no sanitation, that at least 40 families are settled there, that the settlement was established before 1996, that the ownership of the land on which it is located is neither under litigation nor part of an ecological reserve area, and that it is located in a urban center with more than 10,000 inhabitants (Loan 1886/OC-UR, 1999).

In 1999, the estimate from the National Statistics Institute (INE) was that 35,000 households, or around 3.6 percent of total households, were living in irregular settlements, of which 26 percent were located in Montevideo and environs (Loan 1886/OC-UR, 1999). In 2006, 5.5 percent of households were living in irregular settlements.<sup>13</sup> Despite the efforts and the amount of settlements that were regularized in this period, because of the crisis of 2002 it is not surprising that the proportion of households in informal settlements increased.

#### 2.6.5 *Recent Developments*

Three recent developments affecting housing are worth noting. First, in May 2010, the Uruguayan government declared a “state of housing emergency” and launched the program “Juntos”, which pools public and private funds to improve the housing conditions for the poor. As part of the greater priority given to housing, it almost doubled the five-year allocation destined for the

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<sup>13</sup> Own estimation based on ENHA (2006) data.



Ministry of Housing and also increased the resources for the Ministry of Development by 34 percent, channeling over US\$1.3 billion to those two ministries.

Secondly, the MVOTMA announced that as part of its policies it plans to provide 30 percent of the next five years' housing solutions to young people.<sup>14</sup> In coordination with the National Youth Institute (Instituto Nacional de la Juventud—INJU), the MVOTMA plans to increase access to housing for young university students by specifically providing rental guarantees for this population. Additionally, it plans to grant rent subsidies to households headed by young women. It also declared that it aims to increase access to credit for young people wanting to repair and/or build dwellings through self-help housing construction. According to the MVOTMA's five-year plan, at least 20 percent of support for renting housing units with an option to buy should be allocated to young people.<sup>15</sup>

In addition, on August 11, 2010, the MVOTMA signed agreements with three private banks in Uruguay—BBVA, Santander, and Nuevo Banco Comercial—to integrate the latter into the mortgage subsidy system (Sistema de Subsidios de Créditos Hipotecarios para viviendas). These private banks would include support to low-income housing as part of their mortgage portfolios, backed by the MVOTMA.<sup>16</sup>

### **3 Description of Uruguayan Housing Conditions**

This technical note aims to describe the Uruguayan housing market in detail and to understand the size and composition of its housing deficit and the extent to which housing policies are currently addressing this deficit. The next three sections describe the main characteristics of the Uruguayan housing market by analyzing the data from ENHA (2006).

The ENHA (2006) is a cross-sectional dataset that was compiled from a survey by the National Statistics Institute (INE) in 2006. The sample used is representative of the Uruguayan population as a whole. One of the salient features of this particular study is that, unlike previous surveys, it covers more of the population by including rural zones and urban centers of less than 5,000 inhabitants. The survey retrieves data on a number of personal characteristics of the

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<sup>14</sup> Young people are defined as being less than 30 years old.

<sup>15</sup> See MVOTMA, (link below), accessed August 18, 2010

[http://www.mvotma.gub.uy/index.php?option=com\\_content&view=article&id=995:2010-8-13-politicas-de-vivienda-para-jovenes&catid=1:ltimas](http://www.mvotma.gub.uy/index.php?option=com_content&view=article&id=995:2010-8-13-politicas-de-vivienda-para-jovenes&catid=1:ltimas)

<sup>16</sup> See MVOTMA, (link below), accessed August 18, 2010

[http://www.mvotma.gub.uy/index.php?option=com\\_content&view=article&id=989:2010-8-9-convenio-bancos-bilbao-vizcaya-santander-y-comercial&catid=1:ltimas](http://www.mvotma.gub.uy/index.php?option=com_content&view=article&id=989:2010-8-9-convenio-bancos-bilbao-vizcaya-santander-y-comercial&catid=1:ltimas)

household and its members, such as demographics, educational attainment, income, occupation, and health, as well as information on housing arrangements, including data on the home's characteristics, its maintenance, access to housing finance, access to public housing aid, and informal housing arrangements.

As can be seen in Table 2, the geographic distribution of Uruguayan households is mainly urban, with more than 80 percent of households living in cities and around 35 percent of these are located in the capital, Montevideo.

**Table 2. Geographic Distribution**

	N of Households	
MVD (Montevideo, capital)	7,458	35.0%
Other urban cities	9,609	45.1%
Rural	4,243	19.9%
Total	21,310	100%

*Source:* ENHA (2006).

With respect to ownership status, the majority of Uruguayan households (60 percent) own their home, while only 12 percent rent it (see Table 3). The number of households that have less formal arrangements is rather high and, as Table 3 shows, around 28 percent of households can be classified as being occupants. Of these, 5.4 percent are occupants due to work reasons (as housing is provided as a part of work arrangements), 13 percent are borrowing the house and around 1 percent are illegal occupants, i.e., families that are living in a house without the permission of the owner. Additionally, around 8 percent of households report owning the house they live in but not the land. In these cases, the owner of the house has either the legal usufruct of the land or is occupying the land illegally.<sup>17</sup>

Differences in home ownership between rural and urban areas are important in some categories. The proportion of tenants in the capital is almost twice as large as the one found in other urban areas and more than three times that of rural areas. Also, the share of illegal occupants and those that do not own the land is much higher in the urban areas of the capital (around 14

<sup>17</sup> Section 5 provides a deeper analysis of these categories as well as an assessment of the formality status of housing arrangements.

percent) than in other regions (around 6 and 8 percent in other cities and rural areas respectively). Finally, while the number of households that are given housing as part of work arrangements is small in cities, in rural areas almost one in four households are in this situation.

**Table 3. Household Ownership Status**

	# of HHs				Percentage			
	MVD	Oth. Cities	Rural	Total	MVD	Oth. Cities	Rural	Total
<b>Owner</b>	<b>3,979</b>	<b>6,529</b>	<b>2,138</b>	<b>12,646</b>	<b>55.29</b>	<b>66.15</b>	<b>50.39</b>	<b>59.34</b>
Paying	681	1,106	124	1,911	9.46	11.21	2.92	8.97
Paid	3,298	5,423	2,014	10,735	45.82	54.94	47.47	50.38
<b>Tenant</b>	<b>1,358</b>	<b>1,151</b>	<b>223</b>	<b>2,732</b>	<b>18.87</b>	<b>11.66</b>	<b>5.26</b>	<b>12.82</b>
<b>Occupants</b>	<b>1,860</b>	<b>2,190</b>	<b>1,882</b>	<b>5,932</b>	<b>25.84</b>	<b>22.19</b>	<b>44.36</b>	<b>27.84</b>
Dep.	55	139	951	1,145	0.76	1.41	22.41	5.37
Free	786	1,450	591	2,827	10.92	14.69	13.93	13.27
Illegal	114	41	29	184	1.58	0.42	0.68	0.86
Paying	142	137	35	314	1.97	1.39	0.82	1.47
Paid	763	423	276	1,462	10.60	4.29	6.50	6.86
<b>Total</b>	<b>7,197</b>	<b>9,870</b>	<b>4,243</b>	<b>21,310</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: ENHA (2006).

Regarding the type of housing unit, more than 80 percent of households live in houses and the remaining 20 percent is evenly distributed among apartments in high-rise buildings, one-floor apartments and apartment complexes. A very small fraction of households live in dwellings that have not been built for housing purposes. As expected, the proportion of houses is much higher in rural areas and cities outside the capital than in Montevideo. (See Table 4).

**Table 4. Type of Housing**

	MVD	Other Cities	Rural	Total
House	64.14	91.09	98.40	83.44
Apartment in Complex	9.59	5.33	0.68	5.84
Apartment building	16.23	1.59	0.07	6.23
One floor apartment	9.77	1.63	0.21	4.10
Other *	0.28	0.35	0.64	0.38
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: ENHA (2006). Note: \*Buildings not designed for housing purposes.

## 4 Housing Deficit

A house is a fundamental asset that can provide families a decent quality of life. Adequate housing conditions include access to basic services such as water and sanitation. In view of this important role that housing plays in quality of life, governments, NGOs, and international organizations devote considerable resources to the design and implementation of housing policies, especially in developing countries. It is therefore crucial to carefully analyze the housing supply so as to assess its vulnerabilities and design and adapt public policies and resources accordingly.

### *4.1 Definition of Housing Deficit*

Housing deficit has become a standard measure to assess the extent to which housing supply matches housing demand. Most studies look at deficit both in qualitative and quantitative terms.<sup>18</sup> The “quantitative deficit” attempts to capture the extent to which more housing units are needed given the number of existing households in a country, and the “qualitative deficit” measures whether the housing solutions offer minimum standards of habitability to its residents. In this study, we add a third measure, which we call “basis deficit,” which considers whether the initial quality of construction meets certain minimum standards, such that it can be considered a valid housing unit.

#### *4.1.1 Basis Deficit*

Basis deficit is defined as the proportion of houses that can be considered of “poor” construction. The ENHA includes a number of questions about the materials that have been used in the construction of houses. Using this information, houses can be classified into three construction categories. To define these three categories, we applied a two-stage procedure. In the first stage, we classified the quality of the materials used in the construction of the key components of the house (i.e., external walls, roof, and floor). Walls are considered of poor quality if they are made of waste materials or adobe; of “average” quality if they are made of light materials or unfinished brick, and of “good” quality if they are made of finished brick. Roofing is considered “poor” if it is built from waste materials; “average” if it is built with light materials or thatch, and “good” if it is built of concrete. Floors without underfloors are regarded as “poor,” those made of concrete or

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<sup>18</sup> See, for example, Szalachman (1999).

unglazed tiling are considered “average” and those made of wood, carpet, glazed tiling, or linoleum as “good.”

In the second stage, and based on the subscores assigned to the three components in stage one, we gave an overall score to each housing unit. Those houses that had at least one subscore of “poor” were given an overall score of “poor”. The rest of the houses were classified as “average” or “good” according to the subscore with higher frequency. Table 5 shows the proportion of households that fall into each of these three categories.

Around 8 percent of Uruguayans live in houses made of waste materials and/or adobe. Conversely, almost 60 percent of houses have been built with good quality materials. The use of good construction materials is only a partial indication of the quality of the house, since many buildings have structural problems that, in some cases, can severely hamper habitability. In fact, in certain neighborhoods, such as Ciudad Vieja, several dwellings built in the early twentieth century would be considered of good quality using the classification above, but because of their current state they cannot be considered habitable. This highlights the importance of combining all three dimensions to fully understand the size and characteristics of the housing deficit.

The basis deficit captures the initial condition of a dwelling. It is useful for assessing if a housing unit, despite being a housing solution for a single household (i.e., not counting towards the quantitative deficit) and despite the absence of major structural problems (i.e., not counting towards the qualitative deficit), can be considered as a housing solution at all, in view of the quality of its construction. Indeed, in our sample, 2.4 percent of housing solutions only show a basis deficit. If we had not introduced this type of deficit, these units would not have been considered as problematic, although they are partly built with waste or very poor construction materials.

Participants in the survey were also asked whether their housing solution suffers from any **structural problems**. Based on these answers, we were able to define three categories of problems of increasing severity. Houses with small problems are those that have delamination on ceilings, doors or windows in bad condition, and/or moisture problems in roofs or foundations. Houses with medium problems are those with leaks and cracks in walls and/or floors, while houses with severe problems comprise those with flooding and that are in danger of collapsing.

Table 6 shows the negative association found between the quality of construction and structural problems. More than three fourths of those houses of poor construction quality have

severe or medium structural problems while only 31.5 percent of good quality homes have similar issues. Still, and as anticipated, good construction quality is not a good indication of habitability of the building as only less than half of them do not experience any of the structural problems mentioned before and around five percent experience severe problems.

**Table 5. Quality of Construction**

Quality of Construction	Freq.	%
Poor	1,767	8.29
Average	7,206	33.82
Good	12,337	57.89

*Source:* ENHA (2006).

**Table 6. Conditions of Housing Supply by Quality of Construction (%)**

Quality of Construction	Severe Problems	Medium Problems	Small Problems	No Problems
Poor	24.50	53.88	8.43	13.19
Average	11.92	50.56	11.52	26.01
Good	4.60	26.93	22.91	45.57
All	8.72	37.15	17.86	36.27

*Source:* ENHA (2006).

Regarding the type of building, houses are much more likely to be of poor construction quality than apartments. This is particularly worrisome considering that houses make up for the vast majority of the country's housing supply (83.4 percent). Apartment buildings, which appear to have the best record in terms of construction quality, only make up 6.23 percent of the housing supply (see Table 7).

**Table 7. Type of Housing and Construction Quality (%)**

Type of Building	Quality of Construction		
	poor	average	good
House	9.41	38.21	52.38
House or Ap. complex	3.13	16.14	80.72
Ap. building	0.15	1.43	98.42
One floor Ap.	3.55	17.18	79.27
Other *	25.61	51.22	23.17
Total	8.29	33.82	57.89

*Source:* ENHA (2006). Notes: \*Buildings not designed for housing purposes.

If we look at the basis deficit by type of ownership (see Table 8) we can see that the percentage of occupants (both legal and illegal) that report poor construction is 60 percent higher than that of owners who have paid off their house and almost 65 percent higher than the average household. Those that are currently paying off their homes have a higher proportion of houses in the categories of good and average construction quality. These figures look particularly worrisome if we consider that occupants make up around 20 percent of housing units (see Table 3), twice as many as those that are currently paying off their home.

**Table 8. Basis Deficit by Type of Ownership (in%)**

Ownership status	Quality of Construction		
	poor	average	good
owner-paid	8.43	31.70	59.87
owner-unpaid	3.42	30.16	66.43
tenant	3.66	26.87	69.47
occupant	13.55	46.54	39.92
Total	8.29	33.82	57.89

Source: ENHA (2006).

#### 4.1.2 Quantitative Deficit

The “quantitative deficit” aims to identify whether there is a shortage of housing units. It is measured as the number of housing units that shelter more than one household.

**Table 9. Quantitative Deficit**

HHs per house	Freq.	Percent
One household	20,908	98.1
2 or + households	404	1.9
Total	21,312	100

Source: ENHA (2006).

The quantitative deficit does not seem to be a major problem in the Uruguayan context, as only 2 percent of households (around 400 in our sample) appear to be affected by this problem. However, this measure does not look at overcrowding or adequacy of the size of the house. It only attempts to show whether more houses are needed.

**Table 10. Quantitative Deficit and Basis Deficit**

Construction Category	Households per Home	
	One	Two or +
Poor	8.26	9.70
Average	33.77	36.06
Good	57.96	54.22
Total	100	100

Source: Authors' calculations based on ENHA (2006).

Looking at basis and quantitative deficit, Table 10 shows that housing units with multiple households seem to be slightly more affected by a basis deficit than one-household-homes, though the difference is not significant.

#### *4.1.3 Qualitative Deficit*

The qualitative assessment of housing characteristics aims to shed light on whether Uruguayan houses offer minimum standards of habitability to their residents. The “qualitative deficit” measures the number of households that report not having running water, electricity and/or sewage elimination in their housing units (hereinafter WES); plus those households that indicated that their houses need major structural repairs, plus those households that reported overcrowding.

Table 11 shows that almost 82 percent of households have WES services covered. Of those that do not have WES, seven percent enter this category for not having water and sanitation and a further five percent for not having running water in their house. Lacking of electricity does not seem to be a major problem since less than one percent of households enter the no WES category due to the absence of this service.

If we look at WES deficit and basis deficit combined, we find that those homes that are classified as of poor construction quality are less likely to have WES. While only 5 percent of households reporting living in a good quality home lack at least one of the three services, this figure jumps to almost 60 percent for those households living in houses of poor quality, of which a sizeable number lacks these three services (14.09 percent).



**Table 11. Incidence of WES**

	Freq.	%
Total # of households	21,310	100.00
WES	17,468	81.97
NO WES	3,842	18.03
No Water & Electricity	44	0.21
No Electricity & Sanitation	17	0.08
No Water & Sanitation	1,399	6.56
No Water	720	3.38
No Sanitation	1,061	4.98
No Electricity	93	0.44
No Water, Electricity & Sanitation	508	2.38

Source: ENHA (2006).

**Table 12. WES by Construction Categories (in %)**

	WES	No WES	Tot. HH	No W-S	No E-S	No W-S	No W	No S	No E	No E-W-S
Poor	40.24	59.76	100.00	0.45	0.23	4.73	4.41	15.34	0.51	14.09
Average	69.83	30.17	100.00	0.43	0.11	11.48	5.93	8.03	0.79	3.40
Good	95.04	4.96	100.00	0.04	0.04	1.09	1.74	1.71	0.22	0.11
Total	81.97	18.03	100.00	0.21	0.08	6.56	3.38	4.98	0.44	2.38

Source: ENHA (2006).

With respect to overcrowding, following the definition used by INE we define this category as the number of households in which the number of people is more than twice the number of rooms in the house, not counting bathrooms and kitchen.<sup>19</sup> With this definition 1,255 households in the sample (or 5.9 percent of the sample) fall into the category of overcrowding. Table 13 shows the distribution of these houses by construction categories. Overcrowded households seem to be distributed rather evenly on the three construction categories. However, when we consider the absolute numbers of overcrowded households with respect to the total universe of houses in each of these constructions categories we find that almost one of every five poorly constructed houses, also has problems of overcrowding, while only 2.4 percent of good quality houses evidence this issue (see Table 13).

<sup>19</sup> Note that this definition may be underestimating overcrowding. For example, a family of four living in a one-bedroom house with only one sitting area would not fall into the category of overcrowding according to this description.

**Table 13. Overcrowding by Construction Categories**

Category	Overcrowding	Tot. HHs	%
Poor	338	1,767	19.13
Average	621	7,206	8.62
Good	296	12,337	2.40
Total	1,255	21,310	5.89

*Source:* ENHA (2006).

Finally, Table 14 shows the percentage of houses that are in need of **major repairs** either because they are in danger of collapsing or because they have flooding problems.

**Table 14. Major Repairs**

Major Repairs	Freq.	Percent
No need	19,453	91.28
In need	1,859	8.72
Total	21,312	100

*Source:* ENHA (2006).

Considering these three dimensions (i.e. those households that lack some of the components of WES, that are overcrowded or whose home needs major repairs), the proportion of households affected by qualitative deficit in the sample is around 25 percent (see Table 15).

#### **4.2 Quantification of the Overall Housing Deficit**

The analysis of each dimension of the housing deficit in isolation, analyzed in the previous section, showed that the severity and incidence of the three categories varies greatly. While only 2 percent of households are affected by a quantitative deficit, 8.3 percent suffer from basis deficit, and around 18 percent do not have access to WES. However, these problems appear to have a greater incidence in households with certain characteristics (for example those that are poorly built), and while many households may not have any deficits, a vast number have more than one. In this sense, it is important to assess the severity of the housing deficit by determining the number of households that are suffering from more than one of these deficiencies.

Table 15 summarizes the overall housing deficit in Uruguay. As mentioned, around 25 percent of households suffer from qualitative deficit. The incidence of this deficit is much larger upcountry than in the capital, where around 30 percent of households are affected. The major

contributor to this deficit appears to be the lack of at least one of the basic services included in WES, and the importance of this factor is even larger upcountry. While in Montevideo only around 26 percent of the overall qualitative deficit can be explained by the absence of WES only, this figure jumps to 55 percent upcountry. In spite of this, it is less frequent upcountry to have more than one deficit in this dimension, which implies that the severity of this deficit is more pronounced in the capital. For instance, in the upcountry, 77 percent of households with qualitative deficit have only one sub-deficit and 19 percent have two sub-deficits, while these figures are 69 and 24 percent in Montevideo, respectively.

**Table 15. Overall Housing Deficit**

	Tot. HH		Montevideo		upcountry	
	# HH	%	# HH	%	# HH	%
<b>Total HH</b>	<b>21,310</b>	<b>100.00</b>	<b>7,458</b>	<b>100.00</b>	<b>13,852</b>	<b>100.00</b>
<b>No deficit</b>	<b>15,120</b>	<b>70.95</b>	<b>5,903</b>	<b>79.15</b>	<b>9,217</b>	<b>66.54</b>
<b>Qualitative Deficit</b>	<b>5,409</b>	<b>25.38</b>	<b>1,280</b>	<b>17.16</b>	<b>4,129</b>	<b>29.81</b>
<b>1 Deficit</b>						
No WES	2,619	12.29	342	4.59	2,277	16.44
Needs Major Repairing	958	4.50	360	4.83	598	4.32
Overcrowding	513	2.41	184	2.47	329	2.38
<b>2 Deficits</b>						
No WES & Overcrowding	418	1.96	107	1.43	311	2.25
Major Repairing & Overcrowding	96	0.45	47	0.63	49	0.35
Major Repairing & no WES	577	2.71	157	2.11	420	3.03
<b>3 Deficits</b>						
Major Repairing, Overcrowding, No WES	228	1.07	83	1.11	145	1.05
<b>Quantitative Deficit</b>	<b>402</b>	<b>1.89</b>	<b>179</b>	<b>2.40</b>	<b>223</b>	<b>1.61</b>
<b>Basis Deficit</b>	<b>1,767</b>	<b>8.29</b>	<b>445</b>	<b>5.97</b>	<b>1,322</b>	<b>9.54</b>

*Source:* ENHA (2006).

When assessing the interaction of the three dimensions of housing deficit, Table 16 shows that most households listed as having a housing deficit lack minimum standards of habitability. The vast majority of households that have a housing deficit in only in one dimension (78 percent), although the combination of qualitative and basis deficits also has a high frequency (20 percent).

**Table 16. Incidence of Housing Deficit**

Deficit Incidence	Total Households		Montevideo		upcountry	
	Freq.	%	Freq.	%	Freq.	%
Only Quantitative	259	1.22	122	1.64	137	0.99
Only Qualitative	4,060	19.05	949	12.72	3,111	22.46
Only Basis	511	2.40	149	2.00	362	2.61
Quali & Quanti	104	0.49	39	0.52	65	0.47
Quali & Basis	1,217	5.71	278	3.73	939	6.78
Quanti & Basis	11	0.05	4	0.05	7	0.05
Three Deficits	28	0.13	14	0.19	14	0.10
No Deficits	15,120	70.95	5903	79.15	9,217	66.54
Total	21,310	100	7,458	100.00	13,852	100.00

*Source:* ENHA (2006).

## 5 Uruguayan Formal and Informal Housing Markets

According to Dowall (2006), informal housing can be defined by integrating three different concepts: security of land tenure, access to infrastructure services and the physical attributes of the settlement and its housing units. While for Brazil, Dowall (2006) used a definition of informal housing based on access to infrastructure for Brazil, we take the other two dimensions into account to arrive at a definition of informal housing in Uruguay. This decision is mainly based on the fact that the ENHA specifically asks for the legal status of land and housing unit tenure and classifies the neighborhood in which a dwelling is located according to whether or not it is an irregular settlement. The size of the informal housing market in Uruguay can thus be estimated.

### 5.1 Definition of Informality

Based on the information available in the ENHA, we categorized the Uruguayan housing market into three degrees of formality: formal, semi-formal, and informal. Formal arrangements are those in which households are occupying their house and land in compliance with the legal regulatory framework, while informal arrangements are those in which households do not have either the legal usufruct or title of the land and/or the housing unit. In-between-arrangements are considered semi-formal.

To build this categorization, we first looked at whether the housing unit was built in an irregular settlement. According to PIAI an irregular settlement is considered a complex of four or more houses built on land not owned by its occupants. Therefore, by definition, most occupants are

found in informal settlements. According to the survey, 11.4 percent of the households in the capital and 2.3 percent of the households upcountry are located in these informal settlements.

In principle, housing units built in irregular settlements would fall into the category of informal housing, as they are not complying with the legal requirement of owning or having the legal usufruct of the land. However, the categorization of irregular settlement can present errors in our sample as respondents are not asked if their house is located in an irregular settlement. Rather, the interviewer assigns this categorization based on the geographic location and neighborhood characteristics. In some cases, it may become difficult for the interviewer to accurately distinguish among those houses that are part of an irregular settlement and those that are not. Therefore, it is necessary to also consider other variables that can give us an indication of the formality status.

In this sense, we also look at the mode of access to the house and analyze whether a formal acquisition or renting program was used (in which case we consider the unit to be in the formal market even when they were classified as being in an irregular settlement) and we also distinguish among the different types of ownership status.

Table 17 presents a summary of the cases and the categorization given to each of them. Those that report owning both their home and land (regardless of whether they have finished paying for their house) belong, by definition, to the formal housing market (see cases I and II in Table 17). Our sample does not include households with this type of ownership located in irregular settlements.

Those that report owning only the house (but not the land) are considered part of the formal housing market only when they have accessed the house through formal financing (i.e. private or public mortgage, cooperative funding, or public programs).<sup>20</sup> See cases III, IV, V and VI in Table 17. Those located in irregular settlements that do not report formal access were considered part of the informal housing market (cases VII and VIII in Table 17) and if they are in regulated housing areas we considered them in the semi-formal housing markets as we cannot confirm whether they have the legal usufruct of the land (cases IX and X in Table 17) or not.

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<sup>20</sup> In these cases we assume that even though the households do not own the land they must have the legal usufruct of it to be able to access the house through formal financing channels.

In the case of tenants, those that are located outside irregular settlements and those with formal rent guarantees<sup>21</sup> are considered part of the formal housing market (cases XI and XII in Table 17). In contrast, those that are in illegal settlements with no formal rent guarantees are considered part of the informal housing market (case XIII in Table 17).

As for those that are occupying their house, the ones located in irregular settlements are included in the informal housing market (cases XIV, XV and XVI in Table 17). Outside irregular settlements, illegal occupants are also considered part of the informal market (case XVII in Table 17), while those that are occupying their house with permission of the owner (either for work reasons or as part of loan arrangements) are included in the semi-formal housing market since formal housing market pricing and regulations do not apply in these arrangements (cases XVIII and XIX in Table 17).

Using these definitions, the proportion of households in the sample that belong to the formal market is 73 percent. A further 21 percent belongs to the semi-formal market and the remaining 6 percent falls into the informal housing market category.

**Table 17. Formality Categories**

	In Irregular Settlements		Not in Irregular Settlements	
	Legal Access	Access n/k	Legal Access	Access n/k
Incremental Owner		N/A	1,911 (I)	
Owner		N/A	10,735 (II)	
Incremental House Owner (not land)	12 (III)	31 (VII)	208 (V)	63 (IX)
House Owner (not land)	36 (IV)	735 (VIII)	67 (VI)	624 (X)
Tenant	10 (XI)	55	2667 (XII)	
Occupant (dependant)		20 (XIV)	1,125 (XVIII)	
Occupant (free of charge)		197 (XV)	2,630 (XIX)	
Occupant (illegal)		67 (XVI)	117 (XVII)	

Source: ENHA (2006).

## 5.2 Salient Features of the Formal and Informal Housing Markets

In this section, we summarize the main characteristics of the informal and formal housing markets. We focus on households' demographic attributes and their interaction with housing conditions, with the usage of housing policies and other social programs and with housing continuance.<sup>22</sup>

<sup>21</sup> Contaduría General de la Nación, ANDA and Housing Ministry.

<sup>22</sup> We define housing continuance as the years that a household has been living in the same house.

In general, and as Table 18 shows, informal housing conditions are associated with more numerous households (especially more children). While the average number of children in households in the formal market is around 0.5, this figure almost triples in the informal housing market. Also, the heads of informal households are younger and less educated than the average. The proportion of heads of household with secondary education is around 14.6 percent among those enjoying formal housing conditions, but drops to 7.8 if we look at those in the informal market only. Regarding marital status, married couples are more frequent in the formal market.

With respect to housing quality, as expected, houses in the informal market are more likely to be of poor quality, while only 5.4 percent of formal households are in this category (Table 19).

**Table 18. Formality Categories and Demographics**

	formal		semi-formal		informal		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Gender of head (% of males)	0.69	0.46	0.75	0.43	0.73	0.45	0.70	0.46
# of people in house	2.94	1.62	3.07	1.78	3.94	2.11	3.03	1.70
# of children <14	0.56	0.98	0.91	1.21	1.41	1.58	0.68	1.10
Age of head	56.24	16.35	48.12	16.53	44.28	14.54	53.86	16.78
Education of Head *	2.17	1.01	1.96	0.79	1.83	0.67	2.11	0.96
With Partner **	0.61	0.49	0.61	0.49	0.67	0.47	0.61	0.49
No Partner **	0.39	0.49	0.39	0.49	0.33	0.47	0.39	0.49
Married	0.55	0.50	0.48	0.50	0.41	0.49	0.53	0.50

Source: ENHA (2006).

\*Education was defined as a categorical variable with 1 being the lowest value and equivalent to less than primary and 6 the highest and equivalent to postgraduate studies;

\*\* “No partner” implies a mono-parental household, while “with partner” implies a house in which the household’s head has a partner, either married or not.

**Table 19. Formality, Quality of House and Housing Deficit**

	Formal	Semi-Formal	Informal	Total
	Construction Quality			
Poor	5.41	12.90	28.40	8.29
Average	30.01	45.45	40.26	33.82
Good	64.58	41.65	31.34	57.89
	Housing Deficit			
Qualitative Deficit	18.98	38.88	58.27	25.38
Quantitative Deficit	1.64	2.52	2.78	1.89
Basis Deficit	5.41	12.90	28.40	8.29

Source: ENHA (2006).

Informal housing conditions tend to be associated with poorer socio-economic status, and social policies are hence expected to be relatively more important among households living in informal housing conditions. Table 20 confirms this inference and shows that around 65 percent of these households receive some kind of government aid, either in-kind or monetary. This figure is well above the one for the penetration of these programs among the overall population, where around 35 percent are receiving public assistance.

**Table 20. Formality and Social Policies**

	formal	semi-formal	informal	Total
Public meals programs	0.33	0.95	1.23	0.51
Meal Baskets	0.07	0.20	0.74	0.14
Hogar Constituido	8.37	5.88	5.40	7.68
Asignaciones Familiares	14.92	27.08	30.69	18.36
Registered for housing policies	2.01	3.29	4.42	2.41
PANES	3.69	9.95	21.93	6.04
Total	29.39	47.34	64.40	35.14

*Source:* ENHA (2006).

**Table 21. Formality and Housing Continuance**

	formal	semi-formal	Informal	Total
< 1 year	3.76	6.26	4.83	4.34
1-4 years	17.15	28.66	26.60	20.09
5-9 years	14.82	20.98	24.39	16.65
10-14 years	12.78	13.87	18.00	13.30
15-19 years	9.26	8.60	9.25	9.12
20-24 years	9.63	7.14	4.99	8.85
25-29 years	7.18	3.80	3.60	6.27
30-39 years	12.04	5.79	5.32	10.35
40+ years	13.38	4.91	3.03	11.02
Total	100	100	100	100

*Source:* ENHA (2006).

Tables 21 and 22 show the relationship between formality and housing continuance. In the formal market, around 36 percent of families have been living in the same house for less than 10 years, and around 42 percent for more than 20 years. These figures are drastically different in the informal market, where almost 55 percent of families have lived in the same house for less than 10 years and only 17 percent for more than 20. In this sense, for more than half of all households, informality seems to be a recent phenomenon. If we look at the mean and median of the



distribution of household continuance, the median number of years that a household has been living in the same housing unit is 15 for those with formal arrangements, but drops to 8 for informal housing situations. All in all, and as expected, formality is associated with a more permanent housing situation. Still, these figures are also showing that informality is a rather permanent situation, with more than 40 percent of households reporting staying in informal arrangements for more than 10 years.

**Table 22. Formality and Housing Continuance**

	Mean (in years)	Median (in years)
Formal	18.93	15
Semi-formal	11.89	8
Informal	11.07	8

*Source:* ENHA (2006).

## **6 Access to Housing and Effectiveness of Housing Policies**

One of the aims of this paper is to understand whether housing policies are reaching neediest. This section provides an overview of the way in which people have accessed their current housing unit and, in particular, whether they made use of any public housing programs to do so. It also looks at the housing conditions of those eligible to make use of housing programs, to see if housing policies are targeting the right segments of the population and if they are effective in improving their housing conditions.

Table 23 shows that the most owners have purchased their house with their own resources and only 16 percent of total households received some kind of public assistance to purchase their current home. The vast majority of this aid, however, came through BHU, which used to offer mortgages and housing savings accounts for members with less stringent conditions than private institutions (see Table 25). Tenants also relied on public assistance, especially through the National Accounting Office, which provides rent guarantees predominantly for public employees (see Table 24).

**Table 23. Mode of Access to Current Home, Owners in %**

	MVD	Other Urban	Rural	Total
Own resources	54.07	58.15	62.19	57.45
Private Bank Loan	2.97	4.39	2.61	3.61
Cooperative Funding	2.87	1.58	0.29	1.80
Other private loan	1.82	1.13	0.73	1.30
Inheritance	17.53	15.19	26.91	17.97
Gift	1.84	2.13	1.92	2.00
Public loan or program	18.90	17.44	5.35	15.88
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: ENHA (2006).

Notes: Owners are defined as those that either own both land and dwellings (formal owners), or as those that only own the dwellings (informal owners), regardless of whether they have finished paying for it or not.

Public housing assistance and programs are not reaching rural areas. While the proportion of owners that use public housing programs is around 19 percent in the urban areas of the capital, this figure drops to 5 percent in rural areas. Moreover, the presence of the different programs is markedly different. In the capital, BHU administers around 80 percent of all housing programs, while in cities upcountry, this figure is 43 percent and in rural areas it is only 25 percent. Interestingly, housing assistance provided by local governments is much more popular in rural than in urban areas (See Table 25).

**Table 24. Mode of Access to Current Home, Tenants in %**

	Montevideo	Other Cities	Rural	Total
No Guarantees	6.59	27.74	63.36	18.31
Friend or Family	32.27	47.56	22.90	37.11
Other Person (Ex. Employee)	1.07	3.35	2.29	1.98
CGN	33.14	2.90	2.29	20.01
ANDA	8.91	3.05	-	6.16
PIAI	0.29	0.15	-	0.22
Deposit in BHU	6.78	2.13	-	4.62
Deposit other	8.04	8.23	4.58	7.86
MVOTMA	-	0.15	-	0.05
Other	2.91	4.73	4.58	3.68
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: ENHA (2006). Notes: CGN is the National Accounting Office.

**Table 25. Breakdown of Public Assistance by Institution and Geographic Location**

	MVD	Oth. City	Rural	Total
BHU	81.80	43.12	25.19	57.69
MVOTMA	6.18	13.35	1.53	9.78
MEVIR	-	35.19	53.44	22.05
RAVE	2.49	0.40	-	1.22
PIAI	0.11	-	-	0.04
Local governments	4.66	5.66	10.69	5.55
Other	4.77	2.27	9.16	3.67
Total	100.00	100.00	100.00	100.00

Source: ENHA (2006).

The survey also asks respondents whether they are currently enrolled in any public housing program. Excluding BHU programs, registration for public housing assistance seems to be low, with only 2.4 percent of the households surveyed enrolled in public housing programs (see Table 26) and only 12.5 percent of the sample made use of some kind of housing program.

**Table 26. Overall Use and Enrollment in Public Housing Programs**

	Proportion of total HHs (%)	Freq. in sample
<b>Non-owners</b>		
Use of Rent Guarantee Fund	1.73	369
Reg. in ownership programs	1.41	301
Reg. in PIAI (regularize ownership)	0.16	35.00
<b>Owners</b>		
Reg. to repair/renovate/expand	0.53	112
Acc. through pub. prog.	10.75	2290
<b>All</b>		
Made use of housing prog.	12.48	2659
Currently registered in housing programs	2.41	514

Source: ENHA (2006).

### 6.1 Why is the Usage of Housing Programs so Low?

In light of the relatively low take-up of some of these programs, we looked at whether stringent eligibility conditions could be the reason behind the scant usage. Considering the eligibility criteria of each of the programs described in Section 2, Table 27 compares the proportion of the population that would be entitled to use these programs with the share that actually uses them. As we can see, eligibility does not seem to be hampering program participation, as the proportion of

eligible households is much larger than the share actually using these programs. Still, even though eligibility criteria may not be stringent from a quantitative point of view, they may well be targeting population groups that do not find the programs appealing or do not need them. Also, obtaining information on eligibility and application procedures can be difficult. People who might wish to participate may not be doing so because the program is not presented in an accessible way or has not been well promoted.

**Table 27. Population Eligible for Public Housing Programs**

Program	Eligible population (in percent)	Eligible Households in sample
FNVU -Purchase of existing housing units	5.51	1,174
MVOTMA - SIAV	18.40	3,921
MEVIR	12.77	2,722
BPS*	1.00	76
Eligible for any of the above	26.30	5,604
<b>Regularization of Irregular Settlements</b>		
PIAI	5.46	1,163
<b>To access through rental</b>		
Rental Guarantee Fund	7.06	1,504
<b>To repair/renew/expand own housing</b>		
CrediMat	43.54	9,279
Housing Continuance - URO	16.9	3,602
<b>BHU</b>		
Mortgage to buy	37.22	7,931
Loan to repair/renew/expand own housing	78.1	16,646

*Source:* ENHA (2006). Note: Because certain households are eligible for more than one program, the percentages do not add up to 100.

Table 28 presents a more detailed analysis of use of and eligibility for housing programs for the different categories of ownership. If we compare the use and eligibility of public programs for upgrading housing units, we find that only a few of the eligible households are making use of these programs. Moreover, program usage does not seem to be linked to eligibility, as the most comprehensive program (CrediMat, with around a 45 percent of the households eligible) is also the one with the lowest usage (only 24 percent of households use this program, while 47 percent and 41 percent use MEVIR and continuance-enabling programs, respectively). A similar picture arises

with respect to use and eligibility for purchasing a housing unit, with only two programs displaying a take up of more than 10 percent of eligible households, namely BPS loans and MVOTMA's program for purchasing existing dwellings.

With respect to specific renting programs, we looked at the use of the RNP by households that do not own their housing units and which meet the income and rent conditions, assessing the latter through an estimated housing rent value, despite those households not being legal tenants at the time the ENHA was conducted. This would be the eligible population in a broader sense, since it could have accessed this type of help had it opted to formally rent a housing unit. In spite of this, this broader definition hardly affects the proportions in Table 28, which implies that the number of households that could avoid informality by making use of the RNP is marginal (only 0.53 percent).

**Table 28. Use and Eligibility of Public Programs for Upgrading, Purchasing a House, and Renting**

Eligible	Use CrediMat			Use MEVIR			Use Continuance		
	No	Yes	Total	No	Yes	Total	No	Yes	Total
No	12,031	9	12,031	18,571	17	18,588	17,671	37	17,708
Yes	9,279	15	9,279	2,692	30	2,722	3,598	4	3,602
Total	21,286	24	21,310	21,263	47	21,310	21,269	41	21,310

Source: ENHA (2006).

Eligible	Purch. existing house			MVOTMA-SIAV			MEVIR			BHU			Buy BPS		
	No	Yes	Total	No	Yes	Total	No	Yes	Total	No	Yes	Total	No	Yes	Total
No	20,041	95	20,136	17,355	34	17,389	18,551	37	18,588	4,656	10	4,666	7,480	54	7,534
Yes	1,144	30	1,174	3,877	44	3,921	2,701	21	2,722	16,595	49	16,644	71	5	76
Total	21,185	125	21,310	21,232	78	21,310	21,252	58	21,310	21,251	59	21,310	7,551	59	7,610

Source: ENHA (2006).

Bought through housing programs (in %)			
18+ & formal income	No	Yes	Total
No	98.16%	1.84%	4,664
Yes	98.71%	1.29%	16,646
Total	98.59%	1.41%	21,310

Source: ENHA (2006).

Use Rental Guarantee Fund (in %)			
Potential Users	No	Yes	Total
No	99.40%	0.60%	19,806
Yes	83.38%	16.62%	1,504
Total	98.27%	1.73%	21,310

Source: ENHA (2006).

Considering the proportion of households that currently live in irregular settlements, we also looked at the incidence of PIAI. As Table 29 shows, around 5.5 percent of households in the ENHA (1,163 households) are in irregular settlements. Of these, only 35 households are currently registered for housing regularization under PIAI and only 1 household reported having used the program and accessed its current home through it.

**Table 29. Use of PIAI**

	Proportion of HH in %	HH in sample
Households in Irregular Settlements	5.46%	1163
<b>PIAI Use</b>	<b>Proportion of HH in Irr. Sett.(in %)</b>	<b>HH in sample</b>
Accessed current housing through PIAI	0.09%	1
Currently registered for regularization	3.01%	35

*Source:* ENHA (2006). *Notes:* Eight of the 35 households registered for regularization through the PIAI program were classified as being located outside an irregular settlement. It is also curious that three households state they are registered in PIAI although they already accessed housing through public programs ( BHU, PIAI, Other) 19, 6 and 4 years ago, respectively.

**Table 30. Housing Deficit and Use and Eligibility for Public Housing Programs**

	Homeowners eligible for programs to repair/improve/renew their housing, which do not make use of public programs		Non-homeowners eligible for housing programs to acquire housing, which do not make use of public programs	
	HH in sample	Eligible HHs (in %)	HH in sample	Eligible HHs (in %)
<b>Quality of construction</b>				
Poor	501	5	615	11
Average	2,922	32	2,410	44
Good	5,801	63	2,402	44
Total	9,224	100	5,427	100
<b>Housing deficits*</b>				
def_basis	501	5	615	11
def_cuali	1,721	19	1,934	36
def_cuanti	151	2	92	2
No ALEX	1,218	13	1,557	29
Overcrowding	222	2	347	6
Severe problems	555	6	467	9
Medium problems	3,185	35	2,410	44
Small problems	1,758	19	834	15

*Source:* ENHA (2006). *Note:* \* Categories are non-exclusive therefore percentages do not add to 100.

Table 30 assesses the extent to which the subsample of eligible households displaying housing deficits—and hence more in need of public housing assistance—is actually making use of housing programs. Two conclusions seem to emerge from the figures. First, only a small share of eligible households live in poor-quality housing units. In the case of programs for renewing/repairing an owned housing unit, most eligible households (64 percent) live in homes rated as being of good construction quality, while 31 percent live in dwellings where construction was rated of average quality. Analogously, 89 percent of households that are eligible to buy a new housing unit live in average or good construction quality housing units. This seems to further supports our initial intuition that some of these programs may not be hitting their target audience correctly, hence their low take-up.

On the other hand, when looking at the housing deficits irrespective of the dwellings' initial construction quality, 18 (33) percent of households eligible for repairing (buying) their housing units display a qualitative deficit. Among households eligible for assistance to repair their housing unit or for buying a new housing solution, the stake of households having medium to severe problems is 40 and 51 percent respectively. Thus, around half the eligible population that is not making use of public housing programs to improve their living conditions would actually need to do so. This may reflect either lack of information about housing programs or a certain inertia with respect to continuing in their current housing status, regardless of whether it is currently meeting the household's needs. In fact, according to Ramada-Sarasola and Garabato (2011), this inertia can also be observed with respect to the income elasticity of housing demand.

## **7 Conclusion**

Clearly, in considering the wide array of housing policies and programs available in Uruguay, the question arises why they have not been able to reduce the country's housing deficit. Initially, it would seem that Uruguayan housing policies are neither supply-side nor demand-side biased and that, in theory, they provide solutions for households needing support to either access a new housing unit—either as tenants or as owners—or to renovate and refurbish their current housing solution to better meet the household's needs. These programs also target different market segments, attempting to accommodate the needs of very different households, such as those led by young and less educated heads of households, retirees, and pensioners. Programs also differentiate among solutions for Montevideo, other cities, and rural areas, and assistance seems to follow a



subsidiarity principle in which local entities are in charge of assessing the type of help needed in each case.

From the analysis and data-mining exercise performed in this study on the ENHA (2006), further conclusions can be derived. First, while only 2 percent of households point toward the existence of a quantitative deficit, 8.3 percent live in housing solutions that suffer from basis deficit. In other words, almost 10 percent of housing units that are already built do not meet minimum quality standards. In addition, 25 percent of households suffer from qualitative deficits, mainly stemming from the lack of WES. In total, 29.05 percent, i.e., nearly a third of the sample, suffer from at least one type of deficit. Given the high number of households living in housing units displaying qualitative deficits, housing programs aiming at renovating, repairing, and refurbishing housing units should be the most numerous. However, although these programs target more than half the population, they are used by less than 1 percent of households. In fact, more than half of households eligible for repairing/renovating/refurbishing their homes live in housing units with severe structural problems. Besides a certain degree of inertia, this clearly points towards either a lack of information about these programs or a high rate of inefficiency in their targeting and allocation.

Second, certain facts about the Uruguayan informal housing market are worth mentioning. According to the ENHA data, 64.4 percent of households in informal settlements receive other type of social assistance. This means that two-thirds of households living in irregular conditions access other public programs and can thus be reached by public policies. Greater coordination among social and housing policies could ensure that this segment of the population is sufficiently informed about housing policies and could also make access to certain type of programs conditional on the regularization of their informal housing status. In addition, although informal housing seems to be a rather recent phenomenon—the mean number of years households have lived in an informal housing solution is 11—the data also shows that while entering the informal housing market begins as a transitory decision, it ends up being permanent, since at least 16.94 percent of households in irregular housing units has been living this way for over 20 years.

Third, less than 4 percent of households that own their housing unit accessed it through a bank loan. Almost 16 percent did so through a public program—including mortgage loans from BHU—but most households (57.45 percent) accessed it via their own resources. Since almost 60 percent of public housing solutions were provided by BHU, it is understandable that after the

mortgage lending freeze introduced by BHU in 2002, it became extremely difficult for medium- and low-income households to access housing. Still, this could have increased the usage of other housing programs, which remained sparsely used. In fact, only 2.4 percent were registered in housing programs in 2006, and only 5.28 percent had accessed their housing solution through a public program, other than BHU.

In summary, we conclude that while a severe housing problem affects more than a third of Uruguayan households, public housing programs have not reached the affected population. Indeed, since the restructuring of BHU's operations, a clear void has arisen in the mortgage lending arena. The population that traditionally was able to access a housing solution through BHU has not yet been able to find alternative ways of owning a home or apartment. This may explain why so many young families seem to have been pushed into informal markets. In addition, when looking at the housing conditions in which most housing program-eligible households live, it can be concluded that some of these programs are targeting the wrong types of households. Finally, Uruguayan households seem reluctant to repair and renew their current housing solutions, despite medium to severe structural problems. Although the programs allowing for this type of housing unit repair and renovation are the ones with the largest eligible population, they still display very low uptake. This may imply that these programs are not being advertised enough or that they are too difficult to access or inefficiently run.

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