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Markets and housing finance ☆

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ABSTRACT

We examine the extent to which markets enable the provision of housing finance across a wide range of countries. Housing is a major purchase requiring long-term financing, and the factors that are associated with well-functioning housing finance systems are those that enable the provision of long-term finance. Across all countries, controlling for country size, we find that countries with stronger legal rights for borrowers and lenders (through collateral and bankruptcy laws), deeper credit information systems, and a more stable macroeconomic environment have deeper housing finance systems. These same factors also help explain the variation in housing finance across emerging market economies. Across developed countries, which tend to have low macroeconomic volatility and relatively extensive credit information systems, variation in the strength of legal rights helps explain the extent of housing finance. We also examine another potential factor—the existence of sizeable government securities markets—that might enable the development of emerging markets' housing finance systems, but we find no evidence supporting that.

1. Introduction

Housing is for many households around the world both the largest expense and the most important asset. For all households it is an important determinant of quality of life. For the majority in developed countries, and for some in emerging market economies, housing is adequate. But a significant proportion of the world's population does not have access to adequate and affordable housing. According to UN-Habitat (2005), roughly one billion people, or one-third of the world's urban population, live in slums. And a well-functioning housing market influences not only shelter concerns. At a basic level, a country's housing sector can improve public health (by reducing the likelihood of outbreaks of disease), stimulate economic growth (through its own job creation, but also as workplaces for home-based entrepreneurs), and have important social consequences (by influencing crime reduction and citizenship).[1] The best housing sectors should enable the adequate provision of shelter across all segments of the population.

In this paper we focus on one important pillar of a well-functioning housing market, the extent that markets

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[1] See, for example, Glaeser and Sacerdote (2000). See also Leung (2004) on the link between macroeconomic outcomes and housing.

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enable the provision of housing finance. While there are many aspects to the housing market (discussed below), it can be argued that the provision of housing finance is a binding constraint that must be addressed before the market can sustainably provide adequate housing. Even in the best of environments, housing is a major purchase—average home prices typically ranging from 4 times annual income in developed countries to 8 times annual income in emerging economies (Ball, 2003)—that is affordable only when payments can be spread out over time. Absent a well-functioning housing finance system, for many the market-based provision of formal housing will be neither adequate nor affordable.[2] Other housing or housing finance solutions are possible—such as subsidies and the outright provision of public housing—but these can be unsustainable (Quigley, 2000).[3]

While housing finance is a vital component of a well-functioning housing system, to date there has not been a systematic analysis of the depth of housing finance across a broad set of countries.[4] In fact, as far as we know, no formal cross-country study of the size of the housing finance market exists. Existing international housing finance studies tend to be descriptive and highly informative, but lack any formal empirical analysis and often focus on one or more country case studies. The seminal work is Boleat (1985), which includes numerous country case studies. Diamond and Lea (1992) evaluate the housing finance systems of five countries. Chiquier et al. (2004) include case studies of eight emerging market economies. Low et al. (2003), the Mercer Oliver Wyman study, focus on eight countries in Europe. Hegedüs and Struyk (2005) present case studies on seven transition economies and Germany and tabulate housing finance statistics. Chiuri and Jappelli (2003) analyze 14 developed countries (with an emphasis on loan-to-value ratios). Allen et al. (2004) include a short section on mortgage markets in 17 developed countries. Renaud (2005) includes a presentation of data on 45 countries, the broadest set of countries heretofore available. All of these studies are important, but none formally studies why some countries have larger mortgage markets than others and none includes formal empirical analysis.[5]

We begin to fill this void by analyzing the determinants of the extent of housing finance in a sample of 62 countries that includes both developed countries and a wide range of emerging economies. Across all countries, controlling for country size, we find that countries with stronger legal rights for borrowers and lenders (through collateral and bankruptcy laws), deeper credit information systems, and a more stable macroeconomic environment have deeper housing finance systems. These same factors also help explain the variation in housing finance across emerging market economies. Across developed countries, which tend to have low macroeconomic volatility and relatively extensive credit information systems, we find that variation in the strength of legal rights helps explain the extent of housing finance.

We note at the outset two things that we do not address in this paper. First, housing finance, while vital, is but one of many aspects of the overall housing market. The availability of housing is governed by supply and demand factors. According to World Bank (1993), across countries, housing supply tends to be idiosyncratic, primarily because of the housing sector's regulatory environment (especially land use policies and building regulations), but also due to the structure of the construction sector (including the material inputs into the construction process). In contrast, housing demand within and across countries is relatively predictable as it varies with income level. For a given income level, the availability of mortgage finance (and the prevailing interest rates) plays an important role. Mortgage finance is a critical factor in generating housing demand, yet in many countries it is severely limited. In the context of the overall housing market—in which factors that influence supply and demand interact to affect housing outcomes—we focus on mortgage finance as an important, binding constraint on the demand side.[6,7]

Second, our emphasis on market solutions means that our work is not immediately relevant to those in an economy's lowest income levels. Historically, for those who do not have the requisite financial resources, it has been the government's role to provide housing—be it rental property or for owner occupation. While we do not dispute that there is an important role for government housing to serve the poorest sectors of the population, there are limitations such as fiscal pressures and, in many countries, the burden of long-term liabilities. Moreover, in many places government-provided housing is inadequate, potentially leading to other problems. As there is a view that the role of government has switched from that of a provider to more of a market enabler, to the extent that our study—by focusing on the basic fundamental factors necessary to enable housing finance—helps lay the groundwork for financial sector innovation and development, it will be relevant for even the poorest sectors. We also note that our study is of collateralized housing loans, so it excludes the work of housing microlenders that have been providing non-collateralized loans to increase the home purchase possibilities for low-income households.[8] That said, our emerging market results

[2] In addition to the availability of housing finance, other factors that impact housing affordability include home prices and household incomes.

[3] In general, an argument for the government as a direct provider of housing has been that the free market is unable to provide housing for the lower income households.

[4] Data limitations preclude a broad comparative study of other measures (such as reach) of the efficacy of the housing finance systems. For studies of homeownership rates across countries, see Fisher and Jaffe (2003) and Earley (2004).

[5] Other studies include OECD (2002) on transition economies and BIS (2006) on 14 developed countries and two emerging markets. Ghosh (2006) includes a description of mortgage finance in East Asia, Watanabe (1998) includes eight case studies of Asian housing finance systems, and the September 2005 special issue of *Journal of Housing Economics* includes a number of case studies (see Sanders (2005) and references therein). Bardhan and Edelstein (in press) provide a comprehensive analysis of China, India, and Russia.

[6] The complexity of the housing market system dictates that each of the other aspects of housing supply and housing demand is worthy of a complete and separate study.

[7] Certainly, housing finance also impacts the supply side through its impact on builders and developers.

[8] On housing microlenders, see HGSD Center for Urban Development Studies (2000) for case studies, Ferguson (2004) for an overview, Daphnis and Ferguson (2004) for a collection of studies, and FinMark (2006) for an application in South Africa.