The role of housing and real estate in the economy

By John Tuccillo and Sean Burns

HOUSING is the most complex of economic activities. Shelter is a basic need, yet highly developed delivery systems are usually necessary for its provision. Its longevity makes it a capital asset, yet the consumption dimension is often the critical element. Housing contributes directly and indirectly to economic progress, yet, in developed and developing countries alike, there are continuing debates about the share of resources the residential sector commands.

It is with this last question that much of the debate about the housing sector deals. Housing need not be the only engine of development. In the Japanese experience, clearly, development has proceeded quite nicely with scant attention to the domestic housing sector. Yet housing can represent a beneficial package of fiscal, financial and real side interactions that can drive development.

Too often, the utility of housing as a leading sector in development is overlooked. In many developing countries, the emphasis on industrialisation and export earnings tends to channel resources away from the housing sector, since it is considered both small-scale and purely domestic. Yet housing gets built, and the creation of shelter is often the basis for a thriving informal economy that contributes to economic growth in spite of national policies.

In this paper we deal with the impact that the construction and maintenance of housing have on the state of the general economy. We base our story on the United States experience, in which housing has played a crucial role in economic growth. It may be argued that this is a bad example, since the United States has so much of everything that growth can proceed along a variety of paths, while in the developing world scarce resources demand hard choices. But at the end of the Second World War, housing was a backward sector, with standards generally low and scarcity the usual case. The elimination of scarcity and inadequacy through the creation of housing units and the communities in which those units were located were as much a factor in the post-war growth of the United States as was any other element.

'Housing often overlooked'

Moreover, the development of the shelter sector generated a system of resource mobilisation and financial complexity that paved the way for other development thrusts. The growth of household deposits and the scope of the domestic mortgage market provided a financial scale that made the development of secondary markets and the adoption of efficiency-enhancing technology feasible.

Thus, the United States experience contains a variety of elements that are sufficiently universal as to yield some lessons for the developing world.

If there is a single bottom line to this story, it is that housing is a powerful agent of economic growth, a major part of the financial sector and a vehicle for resource mobilisation. It adds as much to the economy as foreign trade, for example, and provides an organising principle on which a sophisticated financial system can rest.

Housing and growth: The US experience

Housing drives growth through the sizeable multiplier effects that accompany construction, maintenance and transaction of real estate. For the entire residential sector, $1 of activity generates nearly $4 of Gross National Product (GNP). If we focus only on construction (a relatively more important activity in the developing world), that ratio rises to 6:1.

Residential real estate plays a major role in the US economy. A home purchase is the largest single consumer transaction that the majority of Americans make, and it is the largest portion of non-human wealth for most of these households. The annual value of housing construction is between 4 and 5% of annual GNP and National Income (NI). The servicing of housing in place — broadly defined to include brokerage services, rental housing management, mortgage lending and servicing, and repair and maintenance services — contributes another 7% to GNP.

Housing services are a major component of the household's consumption bundle; the purchase of housing services and household operation comprises 39% of the typical consumer's total purchases. Moreover, income is generated in the form of rents and management fees in the rental housing market. The implicit rental income of owner-occupied housing services constitutes about 7% of GNP. This component is not included in our definition of the "real estate industry", but is considered as part of the more broadly defined "real estate sector" of the economy.

Economic activity related to providing the products and services of residential real estate employs millions of workers, in numerous industries and of all skill levels. New construction alone employs over 4% of the labour force. Additionally, the income generated through taxation of the value of housing construction and services (housing in-place) provides substantial revenues to federal, state and local governments. This includes income, sales, and property taxes, as well as numerous types of fees.

These tax revenues contribute greatly towards needed publicly-provided resources, such as public education, police and fire services, and physical capital infrastructure. Moreover, general taxes on the income from the services and materials to build and maintain housing support a broad variety of functions and programmes at all levels of government.

Housing constitutes a significant portion of the nation's capital stock. The residential capital stock accounts for approximately 38% of the combined value of net residential and non-residential capital and of consumer durable goods. Moreover, housing is responsible for generating the demand for a substantial share of the nation's durable goods, including appliances, heating and cooling systems, etc. Home equity — the value of the housing stock net of mortgage debt — represents a vast store of national wealth, estimated to total in the region of $3 trillion. According to the Federal Reserve's 1986 Survey of Consumer Finances, the average homeowner held $46,000 in home equity in 1986.

Home equity constitutes 28% of the net worth of the typical household (renters and owners together), the largest single component of net worth. Equity in other real estate (besides the principal residence) makes up an additional 15% of net worth. Other significant components are net business assets (18%) and public stock (10%). Three of these four major components are owned predominantly by high-income households, home equity being the exception. Indeed, home equity represents the key vehicle for accumulating wealth for the vast majority of Americans.

In sum, homeowners save through their homes, and their equity becomes wealth usable to remodel or improve their housing, or to provide for the education of their children or for needed medical services. The prospect of accumulating equity is a major draw of investment funds into owner-occupied and rental housing.

'New types of investor'

There is another side to this progression as well. In the process of acquiring housing, Americans have built a system of resource mobilisation that has been the basis of a highly sophisticated financial structure. Initially, this was centred on the savings and loan industry, a group of depository institutions whose major purpose was the financing of home purchases. The size of these institutions grew both absolutely and relative to GNP during the post-war period.

Later, as economic conditions changed and technological change affected the financial sector, household savings were channelled into other intermediaries. These, in turn, increased the efficiency of the mortgage market, and enabled the creation of new instruments and processes that both suited household demands and attracted new types of investors into the financing of housing.

Housing and growth in the developing world

In developing economies in particular, the housing sector can be very important to growth-oriented macroeconomic policies and continued economic adjustments. In fact, a strong case can be made for designating the housing sector as a leading sector in developing economies, and providing the market conditions necessary for it to flourish.

The important role of housing in developing economies can be viewed from two perspectives. First, the annual flows attributable to housing in developing economies typically account for 3-8% of GNP, and 15-25% of gross capital formation (*The Emerging Role of Housing Finance, World Bank,* 11/88, p. 10). Second, as a store of wealth, housing's importance is unsurpassed. Housing typically comprises between one-quarter and one-half of the capital stock in developing countries, and is the largest single component of household wealth.

Where data on national wealth composition can be found, housing usually represents a major share: in India housing is the single most important component of reproducible wealth; in Korea, housing makes up about 23% of total wealth, and almost 50% of reproducible wealth; and in Mexico, housing makes up about 31% of reproducible assets. Further, the value of the housing stock in India in 1975 amounted to 85% of Indian GDP (*Housing Policy in Developing Economics: Evaluating the Macroeconomic Impacts,* Buckley and Mayo, 6/88).

This relationship of stock (wealth) to flow (GDP) may prove an important one, since macroeconomic policy changes induce changes in relative prices, which themselves can lead to wealth effects.

Housing can become a leading economic sector with or without explicit government policy. In the United States, the housing sector

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developed with a strong input from the government in the form of subsidies, insurance and a special financial circuit. But in reality the benefits of the sector for macro-economic development were achieved through a free market system coupled with an efficient regulatory framework.

Where governments are crucial is in providing the seed funding for the housing system to develop by itself. Thus, the fact that government expenditures on housing in developing countries have tapered off in recent years may prove to be a barrier to the use of the housing sector as a tool of domestic development, if that support cannot be provided in other ways.

According to data from the International Monetary Fund, housing sector programmes have only accounted for about 2% of government expenditures in developing countries. However, as Buckley and Mayo point out, "Against this background, it is easy to conclude that government policy in the sector is of relatively low priority. . . . This view is incorrect . . . the 'off-budget' operations of governments are far more important than traditional 'on-budget' expenditures."

Measuring the impact of the housing sector

Input-output (I-O) analysis is an analytical framework designed to measure the importance of industries (sectors) in determining the level of final output in an economy. Its usefulness for our application is that we can measure the interrelationship between the real estate sector and other industries to assess how changes in real estate output would impact the entire economy. Although the most recent data for the United States were derived for the economy based on 1977 data, they do give us some idea of the relative shares of GNP contributed by various sectors of real estate.

The result of this somewhat technical exercise is that the combined real estate industry contributes $3.74 to GNP for every additional $1 of demand for its products and services. This is consistent with some estimates that have been done in developing countries. Moreover, if one focuses only on the construction aspects of real estate — a figure more appropriate to a developing economy in which the transfer of property figures less prominently — the multiplier number reaches nearly six.

The 3.74 full output multiplier for the aggregated real estate industry indicates that a $1 increase in the final demand for real estate products and services in the formal sector will result in the creation of $3.74 worth of national income. Conversely, a $1 decrease in the final demand for real estate products and services also will cause final output to drop by over $3.74.

Thus, the input-output model analysis indicates almost a 4 to 1 relationship between a dollar spent in (or taken from) the real estate industry and the generation of total output in the economy based on these data. This represents a strong addition to national development arising from the housing and real estate sector. In the US it is a major source of development. It can be so for any nation.

Factors affecting the impact of housing on the economy

The degree of housing's impact on the economy — its share of GNP, income, employment, as well as tax revenues and wealth — depends on several factors, the most important of which are interest rates and general economic conditions, the structure of mortgage markets, the tax treatment of housing, and demographic trends. Effects of these influences are varied and complex, and they often impact the markets for owner-occupied and rental (of single- and multi-family) housing differently.

In the long run, the level of housing activity depends crucially on demographic trends: the total population and its age distribution, household formations and household composition. The rate at which individuals form households, and the particular sizes and composition of these households, determines the potential demand for housing and its type. For example, in the United States we have witnessed the huge impact of the "baby boom" generation throughout the economy, and on the housing market in particular.

The subsequent "baby bust" generation portends declines in the levels of new household formations and housing demand, with major impacts expected in the 1990s. In the developing world, the tremendous numbers of young people create a housing need that often manifests itself in overcrowding, inferior housing and homelessness.

While demographics matter the most in the long run, financial impacts can be dominant in the short run. In the developed world, housing markets respond quickly to fluctuations in mortgage interest rates. In the recent volatile interest rate environment in the US, housing sales and construction were similarly volatile. This responsiveness of housing demand to mortgage rates virtually guarantees substantial short-run housing cycles, particularly for housing starts (as opposed to housing sales).

Since 1953, housing construction cycles have occurred on average every three-and-a-half years, with an average peak to trough decline in housing starts of 45%. Mirroring the greater stability in activities associated with the existing housing stock, resales of existing homes have grown steadily with relatively little cyclical fluctuation compared to sales of new houses. Existing home sales show less than half the cyclical volatility of new housing starts. Fluctuations in housing sales and construction seriously disrupt the

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short-run flow of output, income and employment in the economy.

Multi-family housing construction has shown particular volatility. In recent years, much of this is attributable to the two major tax law changes, which impacted rental housing directly. The very generous tax write-offs enacted in the 1981 Economic Recovery Tax Act contributed much to the ensuing rise in multi-family building. But vacancy rates soared as the level of building exceeded demand. Then, the Tax Reform Act of 1986 removed many of these tax benefits and directly reduced the desirability of investment in rental housing.

Excess supply together with reduced incentives have resulted in sharply falling multi-family starts, and the end is not in sight. Even though rental demand may fall off some in the near future due to the "baby bust", rents have been increasing and will most certainly continue to rise. Moreover, while owner-occupied housing has escaped major adverse tax changes so far, the first limitation on the mortgage interest deduction was instituted in 1987 and policymakers are sure to discuss further limitations in the interests of deficit reduction.

The impact of financial fluctuations on housing as described above will occur whether financial markets are controlled or not. In the free market case, however, the disruptions are likely to be less costly. In the United States both situations have prevailed at one time or another. Prior to 1980, when interest rates in the housing finance system were highly regulated, housing cycles were deep and prolonged; after deregulation, cycles have been less frequent and less severe.

The competition for precedence on the public policy agenda in developing countries can often diminish the attention given to the housing finance system. Controls are adopted to ration credit and thus "contain" the housing sector. But the US experience suggests that the benefits of developed housing finance systems are significant and therefore deserve a prominent position in a developing country's agenda for economic development.

However, the experience with inflation and financial instability of the 1980s in the United States demonstrates that housing finance systems can serve to enrich or hinder the economic development process — which role they play in developing economies depends greatly on their structure. The stakes are high: housing finance systems impact the efficiency of housing investment which can account for between one-sixth and one-quarter of total annual aggregate investment.

Preconditions necessary for housing to have this impact

The ability of the housing sector to contribute in a significant way to national development is not a theoretical construct. The case of the United States strongly suggests that it is a real possibility for any given nation. But certain pre-conditions must be present if this is to happen.

'Security of tenure'

The prime requisite for housing to be a contributor to economic growth is the *establishment of a system of clear title.* In the United States, the development of a strong housing sector has been facilitated by the ability to alienate land privately and efficiently, through a system of laws that not only protect private property rights, but also allow those rights to be transferred or exchanged at the will of the owner.

The issue of secure tenure, all but taken for granted in most Western industrialised economies, is anything but commonplace in developing countries. An estimated 20 to 40% of all urban households in developing countries are living on land to which neither they not their landlords have legal title. In many cities, the figure is much higher.

Without such a system of clear title, households will be less willing either to increase the value of their own holding through individual investment or acquire homes that were constructed by public or private builders. Additionally, security of tenure has a major effect on individual attitudes towards ownership and the condition of one's property. The scope of the market (relative to the size of the total economy) that is necessary for housing to play a key role in development cannot be achieved without this tenure system.

The second major pre-condition for housing to play its role in development is *an effective system of resource allocation.* In the United States, the housing sector developed through the creation of a special circuit in the form of a highly regulated set of financial institutions devoted to the financing of home purchases. The system combined voluntary savings with some level of government subsidies in the form of deposit insurance and protection from competition. In a sense, the development of the savings and loan industry in the United States was a domestic application of the "infant industry" trade argument.

But this process accidentally revealed a key aspect of resource mobilisation. Unable to compete on a price basis, savings and loans competed on convenience, saturating their allowed market areas with offices at which households could lodge deposits or transact loans. A great deal of the success of resource mobilisation in the US took place because the institutions went to the people. The success of institutions in the developing world that went to the people, like the HDFC in India and the Jordan Housing Bank, suggest that the proximity that helps the US experience may be a universal guideline.

There are several key issues which typically impact voluntary schemes of resource mobilisation. Any voluntary savings mobilisation must *ensure positive real rates of interest* to be effective. But the preconditions for this extend beyond the housing sector: the entire interest rate structure must be allowed to adjust, if direct government subsidies and/or a displacement of savings are to be avoided, and resources are not to be artificially rationed.

But often, the provision of positive real interest rates is exceptionally difficult in the face of high rates of inflation as is the case in many developing countries. In some places, this has led to the adoption of indexation schemes. In its earlier forms, indexation was thought to be a temporary measure that could lead to a better handle on inflation, by boosting both contractual and voluntary savings, increasing tax revenues and trimming the government's addiction to inflationary finance. Instead, indexation has evolved into a strategy unto itself for co-existing with inflation.

While indexation has worked in several countries, it has serious shortcomings and consequences. Chief among these is that indexation is much like a cough drop: it covers the symptom, but offers no cure. Indexation as a means of losing the effects of inflation only postpones finding a cure, and it risks making the indexation scheme a permanent aspect of an economy's financial sector. Indexation has also been guilty of introducing distortions between indexed and non-indexed sectors. However, the fact remains that indexation has encouraged urban development and contributed to increased housing finance.

Involuntary savings, usually in the form of mandatory contractual savings, have never really been a significant part of the US housing sector, but appear frequently in the developing world. Whether such a plan will work depends on the environment in which it operates. Success occurs most frequently where there is a relatively stable price level; readiness of lenders to make loans; and more depositors than borrowers in the programme.

In all, a contractual savings plan is probably most likely to be successful where it is applied as a means of providing housing finance for the self-employed, who typically have difficulty when verifying their income and determining their credit worthiness. When these plans are successful they bring the added benefit of enlarging the resource pool from which a housing finance system can draw.

Mandatory savings plans have been used where governments often find domestic savings lacking, and where private financial institutions have run up against severe intermediate problems engendered by high inflation. Commonly, households are found to be participating in a number of contractual arrangements, from pensions, mortgage payments, and a number of payroll-related savings plans. The perpetual lack of housing finance often leads housing policymakers to make use of these contractual funds by reserving a portion for housing, or by outright changing them to mandatory schemes.

'Enlarging the resource pool'

Conclusion

The experience of the United States is that the housing sector is a powerful contributor to the national economy. By any measure, it constitutes between 15 and 20% of GNP, and accounts for about 6% of total employment. Moreover, the multiplier effects that it carries are high relative to other sectors: a dollar spent on construction results in $6 of final product; for the entire sector, the ratio is 4:1.

This interrelationship occurs for a variety of reasons, but for the most part because the fiscal, financial and regulatory systems created, in the post-war period, a housing industry which in turn fed back upon those other sectors. Thus, government regulation created a housing finance system that mobilised resources and set the stage for increased financial sophistication. The tax system encouraged investment in housing, and reaped the benefits of increased incomes and wealth, and thus tax receipts.

For housing to play this kind of role in the economy, certain pre-conditions should be met. First, the legal system should provide an environment that allows for the smooth transfer of property. Second, resources need to be mobilised and channelled to the housing finance system. Finally, the government must make a commitment through its regulatory environment to foster the housing sector and use it as a tool of national development.

Housing can be an important vehicle for economic growth. However, it is not the only one, as the Japanese case illustrates. Moreover, it's not one that comes to mind readily in the developing country context, where the need for foreign exchange often dominates development policy choices. However, housing is the sector that undergirds practically all dimensions of national well-being. To get this and a development boost as well is not an option that should be overlooked. ■

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