RAPID HOUSING PRIVATIZATION IN REFORMING ECONOMIES: PAY THE SPECIAL DIVIDEND NOW

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WORKING PAPER

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I. INTRODUCTION AND OVERVIEW

The benefits of market economies over centrally planned economies stem from economic agents freely responding to prices that better reflect real social costs. The liberalization of prices to reflect true economic scarcity should thus be a top priority for policymakers in the previously centrally planned economies (PCPEs).¹

Liberalizing rents and privatizing housing ought be the top priority in the PCPEs for two reasons. First, rents were the most distorted of all prices, owing to the status of housing as a social (as opposed to economic) good.² Moving this price to market will thus generate substantial efficiency gains in reallocating the existing stock [Daniel and Semjen (1987) and Tolley (1991)]. Second, well-functioning housing markets are an essential precondition for the restructuring of the business sector to a market economy. Labor market efficiency is enhanced through vastly improved household mobility (Blanchard et al., 1991), and the efficiency of capital accumulation and allocation is improved by funding entrepreneurial effort via borrowing against homeowner equity (Newberry, 1992).

Conversion of the housing sector is said to be high on the list of reform minded governments, as well as international agencies.³ Nonetheless, there has been little progress to date, and privatization initiatives appear to be losing steam (see Kalinina, 1992, on Russia, and Kingsley and Struyk, 1992, on Eastern Europe). Indeed, some countries, such as China, are planning on phasing in housing reforms over several decades.⁴

Blanchard et al. (1991, pp 36-39) make the case for rapid privatization of state assets

¹ This priority of price reform is emphasized in Calvo and Frenkel (1991), Blanchard et al. (1991) and McKinnon (1991). Many of the conclusions in this paper follow from the transition models presented in these works.

² Renaud (1991) shows that in the late 1980s the simple average gross rent to income ratio for Bulgaria, China, Hungary, Poland, Romania, Yugoslavia, and the USSR was less than 3 percent. Similar figures hold for Czechoslovakia (Kingsley and Struyk, 1992). Administered rent levels are even lower when measured as a fraction of economic rent because income in the PCPEs was also severely repressed. In market economies, in contrast, the average rent to income ratio generally exceeds 20 percent (Mayo et al., 1992).

³ The Russian Republic has identified housing as one of its most foremost reform areas, and in 1991 adopted a law "On Privatization of the REFSR Housing Stock" (Kalinina, 1992). One of Poland's first loans from the World Bank was a $200 million housing loan; in both 1988 and 1991 the Chinese embarked on a major housing reform effort (World Bank, 1991); and a number of World Bank and USAID studies of housing policy in Eastern European countries have pointed out the broader problems posed by socialist housing delivery systems and the need to reform these systems.

⁴ China's 1991 plans are based on a premise that it will take until the year 2015 to develop a housing market and that privatization will not occur on a significant scale for at least 10 years.
through giveaways, whereas McKinnon (1991) presents the case for "going slow." The stakes regarding this policy choice are high. Housing markets will not function properly until the transition to a free market is essentially complete; the go-slow approach perpetuates housing market distortions with few offsetting benefits and undermines the entire reform agenda of converting economies. Moreover, the distortions introduced by the phasing in of partial reforms can be destabilizing. 

The arguments against rapid privatization generally are analyzed in Blanchard, et al. (1991). We address those arguments in the context of housing reforms. Our conclusion is identical: the arguments "are ill-thought out." The first argument is that existing housing stock is unaffordable in private ownership. The second is that governments cannot afford to forego the revenue from the housing stock. Both are based on a partial analysis of how central planning distorted rents, ignoring its simultaneous distortions to household income and wealth.

In market economies, housing affordability arguments always reduce to some households having relatively less income than others; hence, housing subsidies are introduced as an in-kind transfer. This household-specific argument cannot be extended to the total population of an economy vis-a-vis its existing housing stock. While enormous subsidies are provided to renters in the PCPEs, the full cost of these subsidies is currently being paid by the existing population. Conceptually, freeing rents while simultaneously returning the income funding current subsidies would make private market rents as affordable in the aggregate as the pre-reform subsidized rents. Moreover, the overwhelming efficiency gains make it relatively easy to develop giveaway schemes in which everybody is unambiguously better off, mitigating equity considerations relative to the status quo.

The second argument is that governments need to retain the housing stock because it will generate either an ample stream of revenues or a large lump sum when sold at "market prices." While we sympathize with the need for governments to reduce fiscal deficits, retaining the housing stock will not do so; as shown by Renaud (1991), the current operation of public housing loses money in all the PCPEs. Giving such "assets" away would increase government revenues even if no taxes on private housing returns or capital were collected. This conclusion

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5 Actually, Blanchard et al. (1991) argue for rapid housing distribution on page 29, but for administered increases in rents and thus housing prices prior to distributing the housing stock on page 50. They are unambiguously in favor of rapid distribution of industrial assets.

6 Calvo and Frenkel (1991) conclude that "the benefits from administratively spreading the price rise over time may be illusory" (p 21), and that "the more effective is the domestic safety net designed to protect wage-earners, the more likely it is that more economic problems (inflation) ensue" (p 19).

7 This is a general theme of McKinnon (1991): "Indeed, the tendency of the fiscal position of the government to deteriorate because of the liberalization itself militates against any 'giveaways' of industrial assets or the housing stock" (p 148, italics added). Katsura and Struyk (1991) specifically state that "these [housing] assets are so valuable that if sold at or near full value, they could provide the state with substantial funds to help during the economic transition." (p 1)
is only altered slightly by proposed rent increases, which in most cases would increase the present value of net rents to less than twenty percent of reproduction cost, or less than the present value of the tax revenue the government would be expected to collect from private owners.

Neither is the conclusion altered fundamentally by apparent sales of some properties at significantly above fundamental value. Such sales would either shrink the domestically occupied housing stock or fuel inflation. Moreover, the resultant perception of unaffordable rents is largely responsible for the heightened concern of the population regarding eviction, foreclosure and tenancy rights that is stifling serious reform. Preventing such sales is thus another argument for, not against, housing giveaways.

The persistent misconception that the housing stock has large fundamental value relates to the gap between the level of subsidized administered rents and of long-run equilibrium free market rents. Of course, if rents were at unsubsidized free market levels, fundamental value would be substantial. But rents cannot get to such levels unless the income funding current subsidies is returned to the population. As a result, all analyses of reform have recommended rent and wage increases as a necessary first step.

At this point we need to emphasize the two sources of subsidies in existing rents and the reforms necessary to restore demand to free market levels. As is well known (Kornai, 1990, and Blanchard et al., 1991), socialist economies generally repressed wages and implicitly "taxed" business income at rates of 100 percent or more. This amounts to an income tax on wages. The current implicit wage income tax in the PCPEs funds numerous subsidies, including the ongoing operating subsidies for housing.

While rents have risen sufficiently to about cover operating costs in a number of countries (Kingsley and Struyk, 1992), the gap between long-run equilibrium and administered rents is still huge. This gap represents the second subsidy, the return on capital from past housing investments. Households financed capital subsidies for past investments with "forced savings" through the wage repression mechanism just described. Rents can be raised to free market levels only if the "dividends" from investment in the existing housing stock are restored to household income.

The restoration should not be provided through wage reform (be tied to hours worked) because doing so would severely distort labor markets and reduce international competitiveness. Rather, the dividend income should be distributed either as an ongoing rental allowance or in one lump sum (a "special" dividend equal to the present value of all future dividends), which is fiscally equivalent to giving away the existing housing stock. Identification of the state's

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8 See Pogodzinski (1991) for a discussion of labor supply effects of this wage repression.

9 The implicit tax on wages to finance the rent subsidies and the need for wage reform are discussed in Tolley (1991) and Tanzi (1991).
housing dividend as the major source of current subsidized rent levels explains the seeming dichotomy between the low fundamental (rental) value of public housing and the perceived high market value (which includes the present value of future dividends).

While the dividend could be paid either way, we strongly advocate the one-time special dividend. As Olsen (1983) argues, the fall of communism offers policymakers a unique but fleeting opportunity to break the existing institutional political obstacles by irretrievably giving away the housing stock. A continuing dividend both keeps the housing stock in the hands of the government and is all too easily cancelable at some future date, when rent controls could all too easily be reintroduced.

Restoring effective demand is not the only condition necessary for robust private housing markets. As Russian policymakers learned, liberalizing prices while production is still controlled by state monopolies does not necessarily produce a supply response. The primary focus of this paper, however, is the need to restore housing market demand, assuming that the supply side reforms described in Renaud (1991) are implemented. More specifically, the central question for rapid housing privatization concerns the distribution of the dividend from the existing housing stock, rather than the much thornier wage and rent level questions that have been the emphasis of all other studies. From this it follows that policy should focus on developing an equitable formula (e.g., homeownership vouchers) for giving away the vast majority of the housing stock, while implementing all supply reforms (breaking up inefficient state monopolies, developing property rights, etc.).

The remainder of this paper is divided into four parts. Part II describes the working of real estate markets in market economies. Part III identifies the distortions introduced by central planning, and Part IV discusses alternative transitions to a free real estate market. The final part summarizes the paper.
II. REAL ESTATE SECTOR IN MARKET ECONOMIES

A discussion of real estate markets in market economies is best presented in two parts: the long-run equilibrium and the adjustment from a disequilibrium to the equilibrium.

A. Long-Run Equilibrium

In full equilibrium, net (of operating expenses) rent equals the rental or user cost (UC), the quantity of space equals the demand for it, and the value of the space equals its replacement cost. Measuring the user cost as the sum of the financing cost (real after-tax financing rate) and depreciation, grossed up by unity less the tax rate, after-tax net (of operating expenses) rents must cover the financing cost and depreciation. Solving this relation for the pretax gross rental rate:

\[
\frac{Pr}{RC} = \frac{(\text{fin}+\text{depr})}{(1-\tau)} + \frac{\text{oper}}{RC},
\]

where \( Pr \) is the price of (gross rent on) a unit of space, \( RC \) is the replacement cost of a unit of space, \( \text{fin} \) is the real after-tax financing rate, \( \text{depr} \) is the depreciation rate, \( \text{oper} \) is operating expenses (utilities and maintenance) per unit space, and \( \tau \) is the rate at which rents less operating expenses are taxed.

In general, value equals the present value of expected future after-tax net rental income. But in equilibrium, where these future rents are expected to equal expected future user costs, new construction exactly earns normal profits and the real asset value of a unit of space equals its replacement cost:

\[
V = RC.
\]

In a well-functioning market economy, demand and supply are equal because price adjusts to bring demand into line with the existing stock. We express the demand for space as a positive function of income (\( Y \)) and a negative function of the price (rent) of space relative to the price of other goods (\( Pr/PrPo \)) and equate demand to the existing supply or \( Q \):

\[
D = D(Y, \frac{Pr}{RCPr}) = Q.
\]

We abstract here from vacancy rates. With vacancies, we would convert \( Pr \) to an effective rent and \( Q \) to an effective quantity (would multiply both by one less the vacancy rate), and, in disequilibrium, we would allow for differences between the actual and "natural" vacancy rates.\(^\text{10}\)

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\(^\text{10}\) For an analysis incorporating vacancy rates, see Hendershott and Kane (1992b). For a discussion of the "natural" vacancy rate (the rate that maximizes profits for owners of space), see Hendershott and Haurin (1988).
Figure 1 describes the rental market for space. The solid schedules describe full equilibrium; the quantity of space is such that demand and supply are equated at \((Pr_{oper}/RC = uc)\) (in which case \(V = RC\)). Excess demand is illustrated by the dashed demand schedule, where \(Y' > Y\) and thus \(Pr' > Pr\). In this situation, value exceeds replacement cost and new construction will be induced until \(Q\) rises to \(Q'\) and full equilibrium again exists, as we shall now explain.

B. Adjustment to Equilibrium

Three more equations are needed to capture the essence of the adjustment process. First, we express net construction (C) as a positive function for the value/replacement-cost ratio:

\[
C = C(V/RC). \tag{4}
\]

With \(V/RC\) exceeding unity, new space can be sold for more than the cost of producing it. Thus construction in excess of depreciation will occur. With \(V/RC\) less than unity, construction will be less than depreciation. In fact, if the value of space in this use is below the value in an alternative use by more than the cost of conversion, conversion to the alternative use will occur. To capture the impacts of net construction and net conversions (CONV) out of the stock, we express the stock in period \(t\) in terms of the previous period stock and net construction and conversions (both between \(t-1\) and \(t\)):

\[
Q_t = Q_{t-1} + C - CONV. \tag{5}
\]

The last, and probably most important relationship for what follows, is the determination of fundamental value, the present value of expected future net real rental income. Assuming that the operating expense ratio, tax rate, depreciation rate and financing rate are constant,

\[
V = \sum_{t=1}^{\infty} \frac{(1-\tau)(Pr_t - oper)(1-depr)^{t-1}}{(1+fin)^t}. \tag{6}
\]

Equation (6) illustrates three fundamental points. First, and most obvious, valuation requires market participants to make long term forecasts of real rents.\(^{11}\) Second, if rents only cover operating costs (and are expected to do so "forever"), then value is zero. Third, if the market is in full equilibrium, market rents equal their long-run equilibrium value \([(Pr_{oper}/RC = (fin+depr)/(1-\tau))]\) and \(V = RC\).

Equation (6) is usefully rewritten as

\(^{11}\) Generally, real rents are specified as adjusting to discrepancies between natural and observed vacancy rates. For estimates in which real office market rents adjust to discrepancies between both natural and observed vacancy rates and equilibrium and observed real levels, see Hendershott (1993).
\[ V = (1 - PVBERI)RC, \]  
where PVBERI is the present value of expected below equilibrium rental income

\[ PVBERI = \sum_{t=1}^{\infty} \frac{(1-t) \left[ uRC - (Pr_e - oper) \right] (1-depr)^{t-1}}{(1+fin)^t}. \]

Numerous "disturbances" can change fundamental value: changes in uc (in fin, \( \tau \) or oper), in RC (real labor costs, production technologies) or in the expected path of the Pr’s (owing, possibly, to changes in government policies). As a general rule, we would expect changes in these variables over any short period to be small (costs and technologies generally change slowly) or to be temporary in nature (real after-tax interest rates rising and then cycling back down). Combined with a fairly rapid production response, real value would not fluctuate sharply.

The 1980s provided an exception to this rule in the United States. Owing to a breakdown in prudent lending practices, an unprecedented commercial building boom occurred. Real office market rents were halved, and real fundamental value fell by over a third relative to replacement cost (Hendershott and Kane, 1992b). This "lending-frenzy" is estimated to have reduced commercial real estate values by $250 to $300 billion dollars and to have wasted about $125 billion of economic resources (Hendershott and Kane, 1992a). The frenzy is largely attributable to mistaken government regulatory and private sector lending practices.

The recent U.S. experience should be a warning to countries reforming their real estate sectors. Even in a purportedly stable market economy, lending and building errors of enormous magnitude can occur. The potential for such errors in economies with highly distorted real estate markets must be far greater. And with tenuous macroeconomic stability, the social as well as economic costs of such errors would be multiplied many times over.
Figure 1

Rental Market in a Market Economy

Real Rent

Pr

Pr'

0

Quantity of Space

D(Y, Po)

D(Y', Po)
III. THE REAL ESTATE SECTOR IN CENTRALLY PLANNED ECONOMIES

Real estate sectors in centrally-planned economies functioned far differently than those in market economies. Construction was subsidized, interest rate and rent subsidies were given for owners and renters, respectively, and wages were repressed ("taxed") to fund the subsidies. We begin by describing how these policies distort markets and then discuss whether the PCPEs have over or under invested in housing during the last 45 years.

A. The Controlled Housing Sector of a PCPE

Construction costs in the PCPEs were previously directly lowered by four "capital" subsidies: land was provided for residential use by the state at little or no cost; the price of labor and materials contained substantial subsidies; direct grants from the state budget were provided to finance construction of both owner-occupied housing and state cooperative developments; and long-term mortgage financing for cooperative and owner-occupied housing was provided at below market rates. There were also ongoing "operating" subsidies: utility rates (central heating, electricity, water and sewer, gas, and trash collection) were set below economic scarcity value, and state-owned companies typically provided upkeep and maintenance of the housing stock at administered prices.\(^\text{12}\)

The PCPEs raised revenues by suppressing wages well below productivity and "taxing" (confiscating) enterprise profits. The tax revenues financing operating subsidies can be described as "transfers," whereas the tax revenues subsidizing capital represent "investments" in the state-owned housing stock. The tax was broadly based, but housing investments were made in discrete intervals. At any point in time, the tax on household income to fund capital subsidies was the implicit failure to pay "market" dividends on the existing housing stock (i.e., the implicit tax rate on housing dividends was 100%).

With \(\alpha\) and \(\beta\), respectively, of replacement-cost capital and current operating costs being subsidized, the total income suppression (SUP) necessary to fund all housing subsidies today is:

\[
\text{SUP} = (Pr - Pr^c)Q = \left[\alpha\text{finRC}/(1-\tau) + \beta\text{oper}\right]Q, \tag{7}
\]

where \(Pr-Pr^c\), the difference between market and controlled rents, is the rental subsidy per unit housing and \(Q\) is the total quantity of (state owned) housing space. The current dividend income missing from household income is \(\alpha\text{finRC}/(1-\tau)Q\), and the wage tax is \(\beta\text{oper}Q\). Current household income is reduced by both the lack of dividends and the wage suppression.

The present value of the expected missing after-tax dividend income is the wealth

\(^{12}\text{See Renaud (1991) for a more complete description of these subsidies and their relative use, e.g., among public housing, cooperatives and private dwellings.}\)
(homeowner equity) missing from PCPE household balance sheets.\textsuperscript{13} To understand how crucial homeowner equity generally is to the "affordability" of market rents, consider the following. During the period of high interest rates in the U.S. in the late 1970s, housing market analysts concluded that, based on current prices and interest rates and ignoring substantial homeowner equity, only about ten percent of homeowners could afford the houses they lived in. This percentage would likely be even lower at the higher real interest rates and production costs characterizing the PCPEs. That is, without homeowner equity, the vast majority of PCPE households will not be able to afford their current housing.

Figure 2 illustrates how a real estate market so controlled would deviate from a free market. With low rents, excess demand and a queue result: the income suppression reduces the demand for all goods and services, but all of the income is used to fund rent reductions. The queues are perhaps the most damaging consequence of the controlled market. Households are assigned a particular unit and are effectively prohibited from moving. That is, the existing housing stock is inefficiently allocated among households, and households are suboptimally distributed geographically relative to their job locations. Moreover, effect zero household mobility greatly undermines attempts at industrial restructuring.\textsuperscript{14}

These subsidies result in huge differences between rents for controlled (residential) and uncontrolled (commercial) real estate. The result is the development of "gray markets" for illegal conversions to alternative uses. Thus the distortions in residential markets spill over into other real estate markets.

Housing market distortions also result in hoarding and an inefficient allocation of housing. Both Daniel and Semijen (1987), for Hungary, and Tolley (1991), for China, show that the gains from permitting a market to reshuffle the entitlements to the existing stock of housing are equivalent to an increase in housing services generated by a number of years of production. These potentially large efficiency gains, however, require market prices to facilitate reallocation of the stock among households, to encourage renovation activity, and to provide proper signals for new construction.

The involuntary taxes to finance housing demand placed the state in the position of a price-insensitive monopoly developer. Kingsley and Maxiam (1992) estimate that real supply costs in Czechoslovakia exceed competitive supply costs by 40 percent. We suspect even greater resource misuse in the former Soviet Republic, where price distortions were larger.

\textsuperscript{13} If expected future values of $\alpha$ and $\beta_0$ equal current values, the missing wealth is $cR\gamma C^*Q$.

\textsuperscript{14} Renaud (1991) finds household mobility in reforming economies to be less than 10\% of market economies. Again, see Blanchard et al. (1991) for a discussion of the potential costs of this impediment to restructuring.
Rental Market in a Controlled Economy

Figure 2
B. Over or Under Investment in Housing?

The conventional wisdom is that the cumulative effect of a half century or more of planning and administrative allocation of housing has resulted in substantial under-investment in housing (Renaud, 1991). If this were the case, then demand, after the return of the housing stock to households, would exceed the existing stock at \( Pr = uc \), and market rents would rise above \( uc \). Value would exceed replacement cost, and new construction would be forthcoming, assuming a liberalized housing supply sector. Because this response would take time, the economy would be at a point such as A in Figure 3.

On the other hand, while shortages are expected at the low administered rent, increases in rent to the long-run equilibrium level could easily create an excess supply. Recall that the share of investment demand allocated to all consumer goods was low in most PCPEs relative to market economies. That is, after removal of rent subsidies these economies could be at point B in Figure 3, and little construction would be expected for many years.

We would anticipate that some local markets would be represented by point A and others by point B. However, several reasons lead one to doubt that the pre-reform state of disequilibrium is generally one of shortage. First, data on the PCPE shares of investment in housing are difficult to sort out and compare with those from market economies. Prell (1989), for example, argues that the post WWII growth of housing production in the Soviet Union was "considerable" and almost twice as high as estimates made in the West. Similarly, Alexeev et al. (1991) show that during the 1957-64 period Soviet housing production per capita was the highest in the world, and the World Bank study of housing policy in Hungary indicates that during the 1970's Hungary was probably the world's leading producer of housing on a per capita basis. Finally, Goldsmith's (1985) data indicates that Soviet and Hungarian levels of housing assets -- the only two PCPEs for whom there are such data -- as a share of wealth are higher than many market economies.

Second, while the share of savings directed to nonresidential investments may have been higher than for market economies (see Kornai, 1986), the value of these investments probably was not (see Tanzi, 1991). World Bank estimates indicate that average returns on industrial investment for PCPEs over the last several decades were negative (Bleaney, 1988). Discounting the existing capital stock at a rate reflecting the real marginal productivity of new capital would likely suggest that housing represents a proportionately greater share of wealth for PCPEs than for most market economies.

Third, even if housing is in short supply, there may well be a surplus of the generally disliked panel construction flats. The removal of all subsidies and a simultaneous boost in after-tax incomes (and housing wealth) could lead to an increase in the demand for, and thus supply of, "luxury" housing and a permanent surplus of panel flats.

We suspect that a substantial amount of renovation, repair and conversion work will meet
the hurdle rate for new capital. But the share of GDP devoted to new housing construction projects that are viable at a 15% real cost of capital will probably be quite small, and the share devoted to panel construction produced by state monopolies will be negligible.\textsuperscript{15}

\textsuperscript{15} McKinnon (1991, pp 37 and 52) suggests that the hurdle rate for new investments in the converting economies should be near this value.
Figure 3
Rental Market After 45 Years of Control

Quantities of Space
D(Y-sup, Po)
D(Y-Po)

Real Rent
Pr
P o

Q1
Q2
uc
A
B


IV. TRANSITION TO A MARKET ECONOMY

The need to convert the housing sector is universally recognized. Disagreements arise regarding the optimal pattern and speed of adjustment and the priority of housing over other reforms. While some advocate going slow on housing reform, we, like Tolley (1991), contend that speed is of the essence. Our reasons are three. First, many of the gains from reform accrue only when reform is essentially complete. Second, gradual reform is likely not politically feasible. To illustrate, during an election campaign in the summer of 1993, Hungary, which has been trying to raise rents to their full-equilibrium for decades, froze nominal rents, meaning that real rents would decline. Third, the major arguments against rapid reform are false: privatizing the housing stock will improve, not worsen, the fiscal position of governments, and the housing stock can be privatized in an affordable and equitable manner.

This section addresses these arguments directly. We begin with an analysis of a very gradual transition to a free housing market, including the implications for real estate values, and conclude that deeply subsidized housing has virtually zero value in the government’s hands. We then describe the means to a rapid transition, and last we discuss equity concerns and political objections.

A. A Glacially Gradual Transition

Suppose that rents are raised, but not even sufficiently to clear the market. Then virtually none of the benefits of housing reform are gained. Hoarding of large flats will continue (no efficiency gains from reallocation of the existing stock will occur), and labor force mobility will not increase. Achieving market clearing rents for the vast majority of markets is a minimal initial step. Referring back to Figure 2, the housing queue would be eliminated, and some government savings would be achieved as rents rose from $P^r$ to $P^{r'}$. Generally, though, the rent increase and budget savings will be small because in most reforming economies few households can afford much higher rents. The fundamental problem is, of course, the income (and wealth) suppression. Until after-tax incomes or wealth are raised, few can afford to pay full-equilibrium rents.

How long will it take to get to full-equilibrium rents? Consider two cases. In the first, which approximates China, real rents are only one-tenth of full-equilibrium, and they will be raised by 10 percent a year. The adjustment takes 25 to 27 years, depending on the level of financing rates. In the second, which appears to approximate Romania, real rents are 25 percent of full-equilibrium (operating costs are covered), but real rents will be increased at only 5 percent a year. The adjustment is still 25 to 29 years.

And just what is the housing stock currently worth under these scenarios? We can

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16 Stiglitz (1991, p 15) argues that state "commitments" to competition and against subsidization are the primary economic advantage of privatization. See also Sappington and Stiglitz (1987).
answer this question by using the valuation equations (6a) and (6b), in which the ratio of value to replacement cost is related to the present value of below equilibrium rents. Table 1 reports this ratio for the two slow transitions described above (real rents starting at 10 percent of market or covering operating expenses, respectively). The calculations are performed for two financing costs (high and low). In the first, \( \text{fin} = 0.12, r = 0.2, \text{opcr} = 0.06 \) (0.03 each for maintenance and utilities), and \( \text{depr} = 0.024 \). Thus, from equation (1), \( UC = 0.24 \) and rents just covering operating costs initially equal a quarter of equilibrium rents \( (0.06/0.24) \). In the second, \( \text{fin} = 0.08 \), and thus \( UC = 0.19 \) and initial rents are about a third of equilibrium \( (0.06/0.19) \).

The values in the table are ratios to replacement cost, and those in the first row (\( RC = 1 \)) are based on the further assumption that real construction costs have not changed since the housing was built. As can be seen, values are negative if real gross rents start out at only one-tenth of equilibrium and rise at 10 percent per year. If rents initially cover operating costs and are expected to rise at 5 percent per annum in real terms, then value is positive, but equals only 6 percent of (depreciated) replacement cost in what we consider to be the more realistic high interest rate/user cost case. In the low real interest rate scenario, value is almost a quarter of replacement cost.

The assumption of unchanged replacement cost seems inappropriate. Estimates by Kingsley and Maxiam (1991) suggest that the presubsidy production costs of state construction companies may be 40% greater than those of their private market counterparts. If this is true, the development of private construction companies will reduce replacement cost by 30 percent \( (0.4/1.4) \). In this case (row 2), value would be only 4 to 16 percent of original (depreciated) replacement cost, even when real rents initially cover operating costs and are expected to rise at 5 percent per year.

The values in Table 1 may seem low to some and certainly appear at odds with casual observation of isolated high sales prices. The question is whether such observations support a go-slow privatization approach. We think not, as we explain by considering specific types of and motivations for sales.

One reason for high prices in some desirable markets is purchases by foreigners. They are willing to pay close to reproduction-cost prices because they (1) have income and wealth (their income has not been suppressed) and (2) are not eligible for domestic rent subsidies. While such sales raise revenue, they also reduce the housing stock available for citizens. Whether the net deficit reduction -- the declining available stock will increase pressure for subsidized production -- is worth the net reduction in available housing is unclear.

Another reason for high prices is the conversion to other uses. Commercial rents in most PCPEs are unregulated while supply has typically been restricted. These rents are thus often above, not below, equilibrium levels. With such rents, values above replacement cost are to be expected, and conversions from residential, though typically illegal, will follow. Here again, such conversions reduce the supply of housing for citizens.
Considerable cash balances ("liquidity overhang") have been accumulated by some owing to the lack of available consumer goods, and those with this cash might well be willing to pay above fundamental value for units continuing in housing use. Macroeconomic policy calls for a 100 percent tax on such balances to reduce inflationary pressures, which is one reason households with balances are willing to overpay for housing units. Sales by local governments at above-fundamental-value prices are one way to impose this tax, but the proceeds must then be taxed at 100% by the central bank if inflation is to be controlled. If this second taxation is not possible, housing giveaways are necessary to prevent inflation. Moreover, distributing the housing stock to holders of liquidity overhang is generally considered inequitable, due to the prior inequitable distribution of the overhang.

Finally, governments might be able to generate sales prices above fundamental value by providing excess credit. Not only is this inflationary, but the immediate revenue gain is likely to be offset by default losses in the future. Housing giveaways also avoid this problem.

B. A Rapid Transition

Two mechanisms for a rapid transition to a free-market housing system are an income supplement (rental housing allowances, such as those being employed in the former East Germany) and a wealth transfer (home ownership vouchers, such as those contemplated in Russia). Annual housing allowances would provide housing subsidies to the population that, in the aggregate, equal the foregone annual regular dividend on the rental stock. Ownership vouchers would provide a one-time special dividend to households equal to the existing physical stock of government residential capital. Both mechanisms can be structured to reflect desired equity considerations.

While both mechanisms would entail substantial administrative, managerial, and other difficulties, we believe the problems of the regular dividend mechanism to be more severe.

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17 Calvo and Frenkel (1991) note that "...sales by state enterprises generate (non recurring) revenue (however such a revenue cannot be spent for, otherwise, a new liquidity overhang would be generated)." (p. 34, emphasis in original). Salimano (1990) also concludes that "sterilization of the proceeds of the auctions of state-owned assets is required" (pp. 14-15).

18 Blanchard et al. (1991, p. 34) note "the two domestic groups that are in a position to acquire a disproportionate fraction of the capital are the 'nomenklatura' and those who have become rich from black market activities."

19 See Buckley, Hendershot, and Villani (1993) for a discussion of the likely moral hazard and adverse selection problems associated with lending in the PCPEs.

20 Rental housing serves an important role in market economies. Most important, renters are more mobile than owners. Moreover, rental housing management is more effective for dense multi-family housing units, such as those characterizing urban PCPE housing. Privatization schemes should thus encourage active rental markets.

21 Kornia (1990) discusses problems involved with transferring the ownership of a large part of the capital stock.
First, because there are currently no explicit housing dividends, the desired/needed level of housing allowances is unknown. Second, the government as the single landlord would have the added practical difficulty of searching for the equilibrium rent, as well as the political problem of collecting the rents. Third, the state would continue as the (inefficient) manager of the housing stock.

The surest and most efficient way to restore housing market equilibrium without creating additional distortions during the transition is to unwind totally the socialist housing legacy by eliminating all housing subsidies and the taxes that finance them and giving away the existing stock. With homeowner equity, market rents would then be affordable to most households. The transition would, of course, need to focus on creating an environment in which the giveaway would be accepted by tenants who in some cases are now paying very low rents. This issue is probably highly idiosyncratic across cities and countries and is beyond the scope of this paper.

A common objection to this proposal is that a valuable asset is being given up by the impoverished government. We have already addressed this objection, at least in part: if rents are below operating costs or expected to rise by less than 5 percent per year in real terms in the absence of the giveaway, then the housing "asset" is really a liability. But what if rents equal operating expenses and are expected to rise by 5 percent per year in real terms? And further that the financing rate is only 8 percent? According to the calculation in Table 1, the stock is worth 0.23 of replacement cost. However, the present value of tax revenue, using the same 20 percent tax rate, expected to be collected on earnings from a replacement-cost unit of the deregulated housing stock is even greater than 0.23. Calculating the present value of taxes from $1 of stock as \( \frac{\tau(uc-oper)}{(fin+depr)} \), we obtain 0.25 for any assumed level of the financing rate. The deregulated housing stock is worth more to the government in private hands than the regulated housing stock is in the government's own hands!

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22 As a first step, dividends equal to \( \frac{fin}{(1-\tau)} \) on a stock valued at reproduction cost could be allocated to subsidies. If households used part of their subsidies to consume nonhousing goods or if PCPIs have overinvested in housing, market-clearing rent levels will be below long-run equilibrium levels. Subsidies would then have to be cut temporarily to reflect the below-market return on existing housing capital. Over time, an excess of absorption over net new construction would increase rents toward the long-run equilibrium level, and subsidies would increase.

23 The state need not give away all publicly owned units. The share of public housing in the total housing stock in market economies varies from 2% in the U.S. to 30% in Britain (Renaud, 1991, p 38, note 15). The criteria for robust private markets is that public housing not be an alternative at a subsidized rate. Thus, the percentage of housing that remains public needs to be kept low, and the supply strictly rationed.

24 The present value of taxes per unit of stock is calculated as

\[
TAX = \sum_{t=1}^{\infty} \frac{\tau( ucRC - oper ) (1-depr) t^{-1}}{(1+fin)^t}.
\]
C. Equity Concerns and Political Objections

A major concern with housing giveaways is the priority often extended to the existing tenant and thus the perpetuation of past inequities. This concern could, as mentioned earlier, be addressed through careful design of an ownership voucher plan. The vouchers would be distributed based on a politically determined formula. The state (or local government) could then set an initial price, in voucher units, for the housing stock. Vouchers would be issued for the entire stock. Then, an active secondary market could be created to facilitate housing market adjustments.25

The voucher scheme could, for example, allow those in the queue who have not yet received units to be compensated by those who have. In practice, an explicit "vesting" scheme would be created "ex post". Age (pensioners will likely be protected; they have, after all, had their wages suppressed longer than the young have), time in unit, etc. are all issues politicians might address. Because the current housing system is inequitable to almost all and the voucher distribution scheme is infinitely malleable, equity concerns are not a legitimate obstacle to rapid market reforms.

We believe the political problems associated with this reform have been greatly aggravated by the previous focus on setting sales prices high and failing to consider a dividend distribution. The likelihood of a shrinking housing stock, owing to sales to foreigners and conversions to other uses, and the obvious advantage of those with accumulated liquid wealth raise legitimate concerns regarding eviction, foreclosure and tenancy rights. Housing giveaways, on the other hand, would reduce these concerns by greatly increasing the affordability of most current tenants and thus reducing the political issue to the more manageable establishment of the appropriate social safety net.

Another reason for the delay in housing privatization is the perverse political incentives created by the transfer of the state housing stock, along with the liability for housing services, to local governments. Local governments have not yet developed alternative revenue sources, have no influence over housing wage reform, and are not taxed on liquidity overhang captured by asset sales. Consequently, they have an enormous incentive to garner high sales prices and little incentive to speed reform (Alm and Buckley, 1992). The incentive mechanism for housing reform can be improved by the central government recouping proceeds from housing sales, adjusting revenue sharing and providing the legal infrastructure that supports housing markets (Renaud, 1991). Encouraging these actions should be a top priority for the international agencies.

25 While formal mortgage finance is not necessary prior to the privatization of the existing stock, some form of finance is necessary to facilitate efficiency-enhancing trades and is desirable to allow individual households to move up or cash-out and entrepreneurs to purchase and develop rental housing. However, the system must be limited because excess credit in transitory housing markets could destabilize housing markets and undercut macro-economic stabilization policies, just as excess real estate credit in the 1980s is undermining the U.S. economy today (Hendershott and Kane, 1992a).
Finally, we note that simply giving housing to existing tenants is no more inequitable than a glacially gradual increase in rents where the present value of the future below full-equilibrium market rents equals the fundamental value of the housing. In both cases those with better housing benefit equally relative to those with worse housing. Given the above described efficiency gains from the giveaway, it is preferred to the glacially gradual rent increase.
V. SUMMARY

Transforming the housing sector to a market orientation ought to be a top economic and political priority of formerly socialist economies. This prioritization is appropriate because effectively-functioning housing markets would improve the utilization of the existing stock, facilitate labor mobility and thus productivity gains in the industrial sector, and provide strong collateral to tap existing wealth for venture capital, as well as lower the cost of new housing construction. Despite these putative benefits, tangible progress toward housing sector reform has been very limited in most of these countries, using as a benchmark the rent levels charged in public housing or the share of public housing stock that has been privatized.

The failure to establish a well-functioning housing market stems primarily from two fundamental misconceptions. The first is that giving the housing stock away will erode the fiscal position of governments. The second is that the existing housing stock is unaffordable in private ownership.

The first misconception relates to valuing real estate. In many reforming economies, housing privatization decisions are being made at the local government level, and these cash-constrained governments often expect asset sales to finance their operations. But real estate values depend on expected future cash flows. Without bonafide rental reform, which cannot occur without distribution of the housing dividend, the housing stock in the PCPEs has trivial fundamental value (current cash flows are negative). While some sales can be achieved at prices above fundamental value, such sales either reduce the stock of housing available to citizens or fuel inflation. Giving away the housing stock is an excellent means to prevent such sales. Taxing the increased productivity at rates significantly below the 100 percent marginal rate implicit under state ownership improves the fiscal positions of both the government and households.

Rent to income ratios in the PCPEs are on the order of one-eighth of those in market economies. As is well recognized, these low ratios follow (in part) from a tax being placed on current wages to finance part of current rental operating costs. Not previously recognized is that the low ratios are even more the result of a 100 percent implicit tax on the returns ("dividends") from past housing investments. Recognizing this tax is important for two reasons. First, without removal of the housing dividend tax, along with the wage tax, households will not be able to afford long-run equilibrium rents for at least a decade, and until they can, a well-functioning housing market will not exist. Second, understanding this tax helps clarify the very serious equity concerns that characterize and often obscure the privatization discussion.

While the return on the government owned housing can be distributed as either an ongoing regular dividend or a one-time special dividend, the one-time giveaway is preferred. This method both assures the transition to a system in which housing services are allocated according to market signals and gets the government out of the housing management business. To not pay the special dividend could be a policy error of enormous proportions.
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Table 1. The Value of Real Estate Relative to Replacement Cost

<table>
<thead>
<tr>
<th>Rents = 10% of Market</th>
<th>Rents = Operating Costs</th>
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<tr>
<td>uc = .19</td>
<td>uc = .19</td>
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<tr>
<td>uc = .24</td>
<td>uc = .24</td>
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</tbody>
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| RC = 1.0   | -.09 | -.14 | .23  | .06  |
| RC = 0.7   | -.06 | -.10 | .16  | .04  |