ARTICLE

THE EFFECT OF THE WARRANTY OF HABITABILITY ON LOW INCOME HOUSING: "MILKING" AND CLASS VIOLENCE

DUNCAN KENNEDY*

Housing for the poor suffers in quantity and quality as tenement landlords "milk" still viable buildings, allowing them to deteriorate and become uninhabitable at a rate that outstrips construction of new housing. As a result, the rate at which the poor filter up into higher quality buildings slows, crowding low income tenants into fewer, more run down buildings. Professor Kennedy postulates that selective enforcement of a warranty of habitability can maximize the useful lives of tenement buildings, and, contrary to the "mainstream" view, exert downward pressure on rents while increasing the supply of low income housing.

IN THIS Article I argue that enforcement of a nondisclaimable warranty of habitability in leases of low income urban housing might, under particular market and institutional circumstances, benefit low income tenants at the expense of their landlords. This thesis is controversial. As Edward Rabin[1] recently put it, the "mainstream" view among writers on housing law is that the enforcement of a warranty of habitability will hurt tenants as a class, including low income tenants. I believe that the mainstream view is wrong, at least as far as one can tell on the basis of plausible assumptions and generally accepted analyses of the low income market.

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1. Rabin, *The Revolution in Residential Landlord-Tenant Law: Causes and Consequences*, 69 CORNELL L. REV. 517, 558 (1984).

The "dissident" view, according to Rabin,[2] is that of Bruce Ackerman[3] and Richard Markovits.[4] I start from different assumptions and reach somewhat different conclusions, but my analysis is based on their work, which I see as the most important contribution to the field to date.

My argument is as follows: According to the "filtering model" of low income housing supply, poor people are likely to live in neighborhoods where building values are declining, even when housing conditions are improving. Under conventional neo-classical microeconomic assumptions, we would expect landlords to undermaintain, or "milk," buildings in declining slum neighborhoods. The degree of undermaintenance is theoretically indeterminate. Enforcing a code or warranty should prevent it, prolong building life, and increase housing supply. Contrary to the conclusions of "mainstream" analysis, the effect of comprehensive code or warranty enforcement on the price and quantity of slum housing is therefore indeterminate. Selective enforcement could increase supply more than it decreases it, and depress rent levels for the poor. Institutional conditions make it likely that slum landlords will sometimes seriously rather than trivially undermaintain, and that neighborhood effects will amplify individual landlord decisions into large scale trends. Selective warranty enforcement against "milkers" is at least worth experiment, in neighborhoods where the model suggests it is likely to work.

I. THE FILTERING MODEL

No new housing, or very little, is currently built for poor people in urban areas. It has long been the case that new housing becomes available to the poor through trickle down, otherwise known as the filtering process. As higher income people build new housing for themselves in the suburbs, lower income people "filter up" through the existing stock, so that today's poor often live in housing built for an earlier middle class.[5]

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2. *Id.* at 559-61.

3. Ackerman, *Regulating Slum Housing Markets On Behalf of the Poor: Of Housing Codes, Housing Subsidies and Income Redistribution Policy*, 80 YALE L.J. 1093 (1971).

4. Markovits, *The Distributive Impact, Allocative Efficiency, and Overall Desirability of Ideal Housing Codes: Some Theoretical Clarifications*, 89 HARV. L. REV. 1815 (1976).

5. *See generally* HOUSING IN AMERICA: PROBLEMS AND PERSPECTIVES 161-203 (R. Montgomery & D. Mandelker 2d ed. 1979) [hereinafter Montgomery & Mandelker] (discussing filtering in general); W. GRIGSBY, HOUSING MARKETS AND PUBLIC POLICY 84-130 (1963).

The filtering process involves steady decline in the value of existing housing, as new housing is built and lower income people move upward through the neighborhood chain. The reason for this, within the model, is that the new occupant of a given unit has lower income than the departing occupant, and should therefore offer less for that unit at any given amenity level. Because the unit commands less rent at a given level of maintenance expenditure, it generates less cash flow, and therefore has a lower capital value.[6]

Maintenance also declines, because new residents will not pay as many dollars as older residents, out of their smaller incomes, for a given level of amenity. But, the new residents should still be getting *more* amenity for those dollars than they did in the older and less desirable structures they lived in before. Otherwise, they would not move.[7]

If filtering is working right, the number of functioning units should grow no faster than the population (assuming constant preferences about household composition), but the composition of the stock should improve. There should be abandonment and conversion to nonresidential uses, corresponding to new construction, but only of housing that is so bad that, given the alternatives filtering down, no one can be found to rent it. (Much of the housing already abandoned through filtering lacked indoor plumbing, electricity, running water, central heating, and so forth.)

If the middle and upper classes build themselves new housing faster than old housing is abandoned or converted, the model suggests that the rent for buildings at the very end of the chain will eventually decline to a level that reflects *only* the price of ongoing maintenance (plus taxes) and premiums for good location. In other words, the Ricardian quasi-rent[8] for the structures themselves should decline to zero. Unmaintained housing, albeit the least desirable then in the stock, should be a free good, and its quality should increase steadily over time.

The reason for this is that landlords at the end of the chain have no bargaining power with tenants, other than for the provision of maintenance and location. A landlord who tried to charge rents

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6. *See generally* Montgomery & Mandelker, *supra* note 5, at 162-172 (excerpt from W. SMITH, FILTERING AND NEIGHBORHOOD CHANGE 17-33 (1964)).

7. *See generally* Montgomery & Mandelker, *supra* note 5, at 172-79 (excerpt from Edel, *Filtering in a Private Housing Market*, in READINGS IN URBAN ECONOMICS 204-15 (1972)).

8. A quasi-rent is a return to a factor that is in temporarily fixed supply but whose quantity can be increased over the long run. A true rent, by contrast, is a return to a factor like location or natural soil fertility whose quantity is just given.

that reflected more than maintenance (and location) would lose his tenants to the competition from the new units filtering down. As between similarly situated units available at the bottom, tenants should choose those that deliver the greatest amenity for the least maintenance cost.

Lower rents and cheaper home ownership opportunities in the neighborhoods into which the poor are moving should, according to the model, be at the expense of those long time owners in the area who decide to stay put.[9] There are, however, strategies by which landlords caught in the downward chain reaction can minimize the losses allocated to them by filtering, and these involve shifting the losses to incoming and older tenants, and to banks.

If the rate of abandonment and conversion at the end of the chain is equal to or greater than the rate of new construction at the top of the chain (minus units absorbed by increased demand of the middle and lower middle class before they reach the bottom), then the stock of units available to the poor will remain constant or decrease.[10] Landlords at the bottom will be able to charge rents that reflect the scarcity of units (quasi-rents) as well as location and maintenance costs.

Where that is the case, the poor receive the level of amenity they can afford, but only after they have subtracted from their incomes the part of their rent which reflects the scarcity of buildings. (This is the basic Henry George point.)[11] As a matter of fact, low income rents generally reflect substantial scarcity payments, as is evident from the fact that dilapidated buildings in slums have positive market value. One of the factors that counteracts the growth in supply of housing at the bottom of the chain is the landlord behavior known as milking to abandonment.

What follows is a model of landlord maintenance decisions in a declining neighborhood. The idea is to show that the behavior of a rational landlord facing decline may be socially undesirable, in a way that we might be able to cure by enforcing the warranty of habitability.

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9. Montgomery & Mandelker, *supra* note 5, at 174-76.

10. On abandonment in general, see G. STERNLIEB & R. BURCHELL, RESIDENTIAL ABANDONMENT: THE TENEMENT LANDLORD REVISITED (1973); J. HEILBRUN, URBAN ECONOMICS AND PUBLIC POLICY 355-58 (1981); Rasmussen & Struyk, *A Housing Strategy for the City of Detroit: Policy Perspectives Based on Economic Analysis*, in PERSPECTIVES ON LOCAL PUBLIC FINANCE AND PUBLIC POLICY 151-93 (J. Quigley ed. 1983).

11. H. GEORGE, PROGRESS AND POVERTY (1879).

II. DEFINITION OF MILKING

The specific landlord behavior involved I call "milking." I mean by milking the decision to reduce maintenance below the level necessary to keep a building in existence as a residential unit.[12] In other words, the milking landlord treats his property as a wasting rather than a renewable asset. He adopts a strategy of renting for what the market will bear as the building deteriorates, fully understanding that within some relatively short period of time he will be out of business. Either tenants will no longer pay him anything, or the authorities will close the building. At that point, he expects the building to have no market value. He will walk away from it, give it away, or lose it to tax foreclosure.

Take the longtime owner with no mortgage debt and small holdings in the area. Suppose he is taken by surprise when decline sets in, and does not sell until the value of his property has fallen sharply, reflecting the common expectation that rents have begun an irreversible decline. The new tenants moving in (and old ones as well) are willing and able to pay rents that would maintain the area at a marginally lower level than when the departing affluent were there, but it does not follow that it is rational for the landlord to provide this service.

He faces a trade-off. Cutting back maintenance will lead to a shorter life for the asset and reduce the rent he can charge, but it will also reduce current outlays. What is the right solution for him? It depends on how rapidly rental income will decline if he continues to maintain at the old level, on how sensitive rents will be to declines in amenity if he decides to cut back maintenance, and on how fast the building will deteriorate for a given reduction in maintenance.

Suppose the landlord expects rents to decline very quickly no matter what he does, that they will not decline much faster if he

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12. Lowry, *Filtering and Housing Standards: A Conceptual Analysis*, 36 LAND ECON. 362-70 (1960) is the closest thing to the analysis in this section that I have found in the literature. An important assumption in the discussion that follows is that age per se is not an important factor in abandonment, contrary to the intuitive notion that all buildings will eventually be abandoned when they "wear out." Lowry argues that age leads to technical and stylistic obsolescence, which reduces demand for the unit, sometimes so far that it is abandoned. The physical aging process just means that the owner must spend money on maintenance in order to keep the unit in the stock. If demand is great enough, maintenance will replace every part of the unit that deteriorates, and most buildings will stay in the stock indefinitely. Different buildings may have different physical aging patterns and require different quantities of maintenance, but for any given unit the question of abandonment is economically rather than physically determined. *Id.* at 365-66.

reduces amenity, and that he can keep going at low or zero maintenance for a long time before he loses the building. Under these conditions, it may be a rational investment strategy to stop or reduce maintenance and let the building gradually deteriorate toward abandonment. This is milking, a maintenance strategy that treats the building as a wasting asset rather than an indefinitely renewable long-term investment.

III. When Is Milking Rational?

The case that I am going to deal with is that of the landlord who wants to reduce maintenance below the renewable level before rent falls so low that he has no other choice. In other words, I am going to argue that it will sometimes be rational for a landlord to begin to milk a building before the rent roll has fallen so far that rent will not cover maintenance (plus taxes, insurance, and a normal profit). And I am going to argue that it would be a good idea to enforce the warranty of habitability to prevent this behavior.

It is easy to see why a slum landlord milks a building when the exodus of more affluent tenants filtering up and out has driven rent down so far that keeping the building viable would put him in the red. Likewise, it is easy to see that a stable low income neighborhood might be abandoned through milking if the income of long-term tenants declined far enough (due to a reduction in welfare payments, for example). But where rent will cover maintenance (plus taxes, insurance, and a normal profit), it would seem the landlord is hurting his own interests if he in effect destroys his property by undermaintenance.

Imagine that we know how much a tenant will pay for the unit kept in renewable shape, and how much a tenant will pay for it if the landlord stops maintenance and the unit begins to deteriorate. So long as this rent premium for amenity is greater than the cost of providing it, we assume that profit-maximizing landlords will not milk. They will go on maintaining in order to maximize their income from the building. But now suppose that as the neighborhood deteriorates there comes a time when tenants will not pay a premium for the maintained premises equal to the cost to the landlord of keeping them that way. The landlord will at least consider stopping maintenance payments since those payments no longer generate a concomitant increase in rent.

But if he stops maintaining, he will lose his investment when the building becomes uninhabitable or is condemned by the city. Moreover, each monthly rent payment will be smaller for the un-

maintained premises, though the decrease will not be as great as the savings on maintenance. In other words, maintenance does not increase monthly income by as much as it costs, but it does prevent loss of a future income stream and earns back a *part* of its cost. The landlord will have to offset the gains from milking (generated by the suspension of maintenance payments) against these losses (reduction of the monthly payments for now less desirable premises, and reduction in the longevity of the income stream).

The income *lost* through milking should, under conventional economic assumptions, become less and less as the neighborhood declines. First, the difference between rent payments for the building maintained and for the building unmaintained should become smaller and smaller. This follows from the conventional assumption that poorer and poorer tenants will offer a smaller and smaller premium for any given quantity of amenity. In other words, imagine that a family with a $15,000 per year income will offer $400 per month for the landlord's premises if they are deteriorating toward abandonment, and an additional $100 per month if the landlord is maintaining at the renewable level.

If family income falls to $10,000, the family could only offer, say, $300 per month for deteriorating premises, and a premium of $75 for the same apartment maintained. This means that as the neighborhood declines, the landlord foregoes less and less monthly income when he decides on a given cutback of maintenance.

Second, as the neighborhood deteriorates, the value of the income stream the landlord will have to forego if he abandons becomes smaller and smaller. Imagine that if the landlord maintained at the renewable level, he would have eleven years of (declining) income before rent payments became so small they would not cover maintenance (plus taxes, insurance, and normal profit). Let us say that at that point (eleven years) it would make sense for him to stop maintenance altogether, and just collect marginal rent until he lost the building, after, say, another four years. Under the best of circumstances, the life of the building is only fifteen years from the start of neighborhood decline.

Now imagine that he starts milking as soon as neighborhood decline confronts him with falling rent, and as a result, he loses the building after four years. He has foregone eleven years of (declining) rent payments. But for each year he delays the start of milking, the foregone income stream is one year shorter. Thus if he starts milking after six years of declining rent, and it still takes four years for the building to leave the stock (at the ten year

mark), he foregoes only five years of rental income, years in which the unit would have commanded relatively little anyway.

As the neighborhood deteriorates and the building approaches the eleven-year mark (at which the landlord is sure to stop maintaining, we suppose, because rent payments have gone through the floor), the savings from eliminating maintenance decline. The landlord who milks prematurely in year ten saves only a year's expense. But the gains from maintaining become smaller faster, as the tenant premium for amenity declines, and the foregone income stream becomes shorter and shorter, approaching zero. At some point before year eleven, the gains from milking *must* exceed the gains from maintaining, and at that point a rational landlord will let the building go down.

IV. Graphical Illustration of the Rationality of Milking

In this section, I will illustrate graphically the conclusion that, under the assumptions I have been making, there must come a time, before rent falls below maintenance cost (plus taxes, insurance, and profit), when a rational landlord will decide to milk his building. If you do not like graphs, and are satisfied with the statement in the text above, I suggest you skip to the next section. If you would prefer a more elegant and more definitive mathematical statement of the conclusion, I can only apologize for my inability to provide one.

As always, we need heroic assumptions in order to reduce the problem to graphic form. As always, the claim is that though artificial, they do not obviate the interest of the result. The first assumption is that the landlord operates either at a renewable level, or at zero maintenance. Second, whenever he stops maintaining, the rent he can charge falls instantly from the renewable to the "deteriorating" level, and remains there for four years, at which point the building leaves the stock. Making both rent and building life continuous functions of variable maintenance expenditure would greatly complicate the analysis without changing the outcome.

In Figure 1, line AB represents the declining rent offers through time for the premises maintained at the renewable level (this is *not* a demand curve: it shows the dollar rent for a given unit in succeeding years, rather than dollar rent for more and more units). Line CB shows the rent for the premises if the landlord is spending no money at all on maintenance. AB and CB slope downward

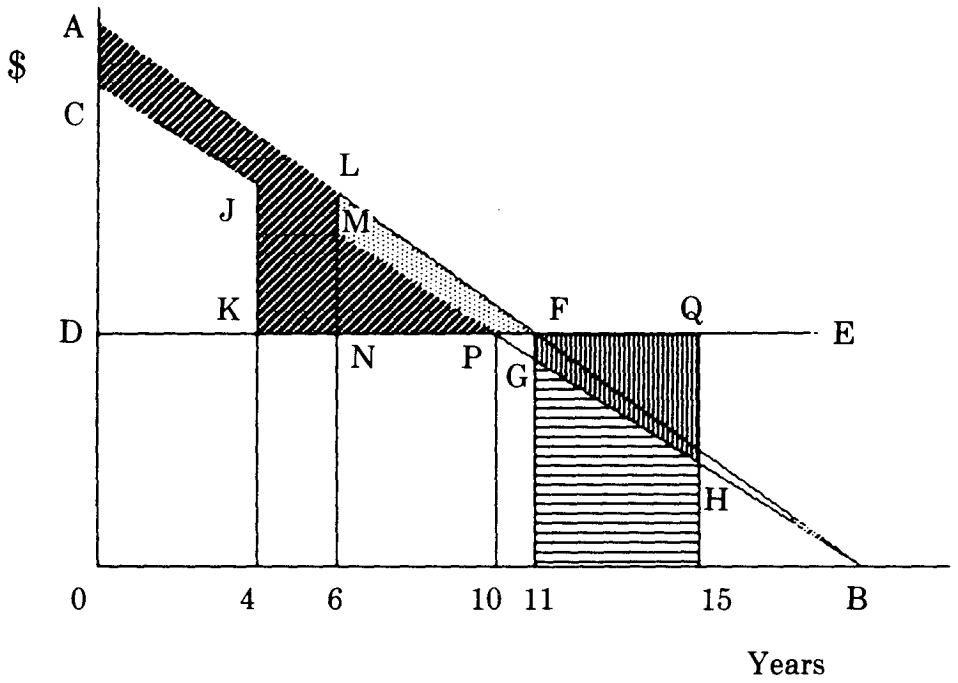

Figure 1:

Comparison of Revenues from Milking and Maintaining

through time because tenants are getting poorer and poorer and can offer less and less for the premises, whether maintained or deteriorating. They converge because as tenants become poorer the rent premium for amenity declines.

Line OD is the amount of maintenance needed to keep the unit in the stock (the renewable level), and it remains the same through time, as shown in line DE. Distance OD is greater than distance CA because during the period that interests us tenants are unwilling to pay a rent premium for amenity equal to the cost of maintenance at the renewable level. At point F (year eleven) the rent offer for the premises maintained falls below the cost of maintenance, as line AB intersects line DE. My goal is to show that a rational landlord will begin to milk at a point to the left of (earlier than) F, that is, at a time when tenants are still offering enough rent to keep the building in the stock.

Suppose that at time O, the landlord considers the possibility of beginning to milk, and compares it with a policy of continuing to maintain until, at point F, it becomes an obviously losing course. Maintaining will yield, first, an income represented by the area

ADF (total revenue of OAF[11], less maintenance cost of ODF[11]). At year eleven, the landlord will stop maintaining, and earn a milker's terminal income of [11]GH[15] during the four years the building remains in the stock in deteriorating condition.

Now suppose he begins to milk at time O. Rent falls immediately to OC, and continues to decline for the four years the unit remains in the stock. Total income is OCJ[4], with no deduction for maintenance, because none is done. This course is less remunerative than the alternative, because the net revenue lost through milking, area ACJKF plus area [11]GH[15], is patently greater than the net revenue gained, area ODK[4].

But now suppose that the landlord waits until year six, and then reconsiders a milking course. Rent will fall from [6]L to [6]M. He will lose the premium for amenity for the five years remaining to year eleven and point F, represented by area LMPF. He will also lose the terminal milking profits represented by area [11]GH[15]. He will gain four years of suspended maintenance payments, represented by area [6]NP[10].

Milking is more profitable than maintaining as of year six, because area [6]NP[10] is greater than area LMPF plus area [11]GH[15]. The visual test of this is as follows:

[6]NP[10] = [11]FQ[15] (both equal four years of maintenance costs).

[6]NP[10] minus [11]GH[15] therefore = Area FGHQ.

Area LMPF is, by visual inspection, less than area FGHQ.

Therefore, the saving from milking, area [6]NP[10] is greater than the lost revenue, area LMPF plus [11]GH[15], from maintaining to point F.

The discussion so far simply illustrates the proposition that premature milking *may* be a profit-maximizing strategy. To show that there *must* be a point earlier than point F (eleven years) at which milking is preferable to maintenance, we have to look at what would happen if the curves were drawn so as to minimize the gains and maximize the losses from milking. Here is a verbal proof.

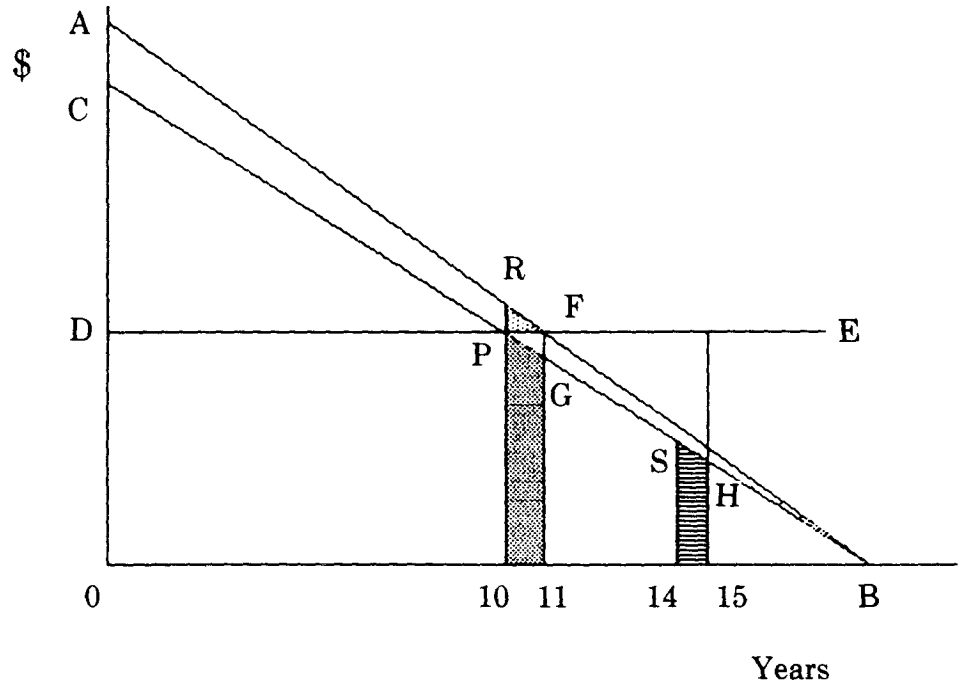

Figure 2:

Proof that Milking Must Eventually
Become More Profitable than Maintaining

In Figure 2, suppose that the landlord begins to milk in year ten and collects rent for the deteriorating premises for four years until year fourteen. Her milking revenue will be area [10]PS[14]. If she had behaved "optimally" by continuing to maintain to year eleven, her revenue would have consisted of two elements: the net premium for amenity during the one year she would have continued to maintain, area PRF, plus terminal milking revenue of [11]GH[15].

Area [11]GS[14] will be revenue to the landlord whether she milks in year ten or in year eleven. The difference between the two courses of action is the difference between area [10]PG[11], revenue from premature milking, and the sum of the areas PRF and [14]SH[15], lost net revenue from maintaining plus lost terminal milking revenue.

As we delay the decision to milk further and further, all of these areas approach zero, which they attain at year eleven, when the two options become identical. It is nonetheless the case that no matter how the curves are shaped there will come a time before year eleven when the premature milking area will be greater than

the sum of the two areas that represent the gains from maintaining.

The area [10]PG[11] will be larger than area [14]SH[15] right up to the point at which they both disappear in year eleven, because by hypothesis the rent offer for deteriorating premises declines through time. The difference between these areas represents the fact that the premature milker will receive a larger offer for the deteriorating premises than the maintainer, because the maintainer starts terminal milking later in the game, when the tenants' ability to pay is smaller.

The maintainer's net gain from providing amenity, area PRF, may initially be large enough to overcome this difference and make maintenance the better strategy. Eventually, however, as PRF declines toward zero, it must become smaller than the difference between [10]PG[11] and [14]SH[15], which remains positive even at the limit of year eleven. When this point is reached, the landlord begins premature milking.

V. The Significance of Milking

There are three important points about this conclusion. First, it means that if we permit milking, the actual life of the building (under the assumptions) will always be shorter than the fifteen-year life span it would have if we selectively enforced the warranty of habitability. Assume that we can enforce the warranty just enough to compel the landlord to maintain the building at the renewable level. In our hypothetical, it would be eleven years until the rent did not cover this cost (plus taxes, insurance, and normal profit). At that point, if we continue to enforce the warranty, the landlord will walk away. But if we then relax enforcement, she will milk for four years, to the end of the building's fifteen-year life span. In other words, if real world circumstances corresponded to the model, selectively enforcing the warranty could extend the lives of buildings in declining neighborhoods.

Second, and equally important, the length of the extension is indeterminate unless we have a great deal of specific data about the building and the market. It *might* be the case that milking made sense from the very beginning of neighborhood decline. And it might also be the case that it only made sense in the very last part of the cycle. The life extension brought about by enforcing the warranty might be very substantial, or trivial, or anything in between.

Third, extending the life of buildings in the stock adds to the supply of housing. Thus if the warranty extends building life, it should also depress rents, an outcome not contemplated by the dominant view. Of course, the amount of the supply-increasing, rent-decreasing effect is indeterminate, and we have to assess it in the context of the general impact of the warranty on the price and quantity of low income housing.

VI. Impact of the Warranty on Housing Price and Quantity

Begin with the conventional assumption that the price and quantity of low income housing is determined by the interaction of supply and demand. As a preliminary matter, we might try to apply to this market the standard analysis of the impact of a compulsory term in a consumer contract.[13] This analysis suggests, first, that if we have to impose the term it is worth less to consumers than it costs sellers to provide it. Second, sellers will add the cost of the term to the cost of the commodity and try to pass it on through higher prices. Buyers will respond by demanding less. The outcome should be less quantity at a higher price, with buyers and sellers bearing the unwanted extra cost in proportions determined by the shapes of the supply and demand curves.

In the housing case, this analysis suggests that landlords will pass along some of the increased maintenance costs generated by the warranty, so that rents will go up. Tenants will be forced to purchase more amenity than they want; they will pay more for less housing, albeit housing of better quality. The outcome falls into the general category of liberal reforms that hurt their supposed beneficiaries. In the absence of regulation, the poor supposedly get the level of housing amenity they want, given their incomes and the cost of housing. Attempts to improve their situation by paternalistic interference with their freedom of choice supposedly just make matters worse.[14]

In the general case, there are a number of ways to critique this critique of regulation. To begin with, transaction costs, and particularly problems of information, may be preventing consumers from

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13. *See generally* Kennedy, *Distributive and Paternalist Motives in Contract and Tort Law, With Special Reference to Compulsory Terms and Unequal Bargaining Power*, 41 Md. L. Rev. 563, 590-624 (1982).

14. *See generally* Hirsch, Hirsch & Margolis, *Regression Analysis of the Effects of Habitability Laws Upon Rent: An Empirical Observation on the Ackerman - Komesar Debate*, 63 Cal. L. Rev. 1098, 1116-24 (1975); R. Posner, Economic Analysis of Law 356-59 (2d ed. 1977).

getting what is in fact their preferred outcome of warranted premises.[15] Moreover, there may be external effects of consumer decisions on the warranty that ought to be included in a social calculus of its desirability, and that would lead to the conclusion that it is socially optimal.[16]

Third, there may be a strong paternalist case[17] in favor of the warranty if it turns out that eliminating very bad units, forcing marginally higher densities in better maintained conditions, has long-term beneficial effects on poor families. Fourth, it is just wrong to assert that "the poor" as a group are made worse off by the imposition of a compulsory term. Depending on the shape of the supply and demand curves, the poor as a group may be enriched at the expense of their suppliers as a group (loss to both is also possible, as is enrichment of sellers at the expense of buyers).[18]

My view is that those who have applied these arguments to the low income housing case are persuasive in favor of the warranty of habitability. The fact remains that this position concedes that enforcing the warranty will have the effect of reducing the quantity of low income housing and raising its price. In the best case, there are enough poor people who actually benefit from this change so that its bad effect on other poor people (and landlords) seems an acceptable cost.[19]

Bruce Ackerman is the exception in this respect.[20] He explores the case in which there is a very small or null reduction in supply because landlords have nowhere to go. The existence of marginal tenants who put a very low value on housing amenity may prevent landlords from passing through *any* of the cost of a comprehensive housing code enforcement program. Presumably a nondisclaimable warranty that was somehow equally comprehensively enforced would have the same effect in his model.

Ackerman, however, sees *piecemeal* warranty enforcement by individual tenants using civil remedies as counterproductive. In his model, it is the need to compete for the marginal, amenity-indifferent tenant that prevents landlords from passing on the costs of

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15. *Cf.* Kennedy, *supra* note 13, at 597-604.
16. *See* Ackerman, *supra* note 3, at 1177-79; Markovits, *supra* note 4, at 1831-33.
17. *See generally* Kennedy, *supra* note 13, at 624-49.
18. *See id.* at 609-14, 655-58; Markovits, *supra* note 4, at 1823-27.
19. *See* Ackerman, *supra* note 3, at 1179-81; Markovits, *supra* note 4, at 1827-30.
20. Ackerman, *supra* note 3.

code enforcement.[21] If improvement occurs piecemeal, landlords can raise the rent on improved premises and attract those among the low income tenant population who are willing to pay more for amenity. The result is higher rent, though presumably the increase will be less than the landlord has had to spend (or the landlord would have made the improvement without the pressure of the warranty).

To my mind, Ackerman's analysis of code enforcement is a very important special case of the general analysis of a compulsory term, the special case in which landlords locked into their units confront marginal tenants indifferent to amenity and thus have to eat the cost of across-the-board improvement. His contribution to the discussion of the impact of the warranty of habitability is to show that the redistributive goals of intervention in this special situation will be jeopardized if it is carried out piecemeal through private law remedies. He is like everyone else, however, in assuming that the impact of code or warranty enforcement will be at best neutral with respect to the supply of units, and more likely than not will reduce it, causing a rent increase.[22]

VII. Might the Warranty Depress Rents?

The critics of the warranty assume that there are substantial numbers of sub-warranty units that landlords will either upgrade (passing along at least part of the cost as increased rent) or abandon (where the cost of upgrading makes operating the building a losing proposition, given what tenants will pay for improvements).[23] The adverse impact of the warranty comes from the removal of substandard units from the stock through abandonment, and from rent increases reflecting upgrading. Together, they crowd the low income population into offering more money for less housing (of higher quality).

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21. *Id.* at 1193-96.

22. *See id.* at 1111-12; *cf. id.* at 1104 n.15. I venture the guess that Ackerman would have considered the impact of code enforcement on building life had he written only a few years after he did. The wave of abandonment discussed *supra* note 10 and *infra* note 41 was barely recognized or understood in 1971.

23. Meyers, *The Covenant of Habitability and the American Law Institute*, 27 Stan. L. Rev. 879, 889-93 (1975). Meyers also suggests that in cases where the landlord has to upgrade without raising rent the warranty will reduce the funds available for maintenance and therefore shorten building life. This argument leaves out altogether the effect of warranty-induced maintenance expenditures on building life, and seems to operate on the physicalistic understanding of abandonment critiqued *supra* note 12.

At this point, we have to ask whether the life-extending effect of a warranty that prevented milking might not counterbalance the supply-reducing, rent-increasing effects of upgrading and abandonment. Indeed, it seems at least possible that if we enforced the warranty very selectively, it might increase supply and push down prices, rather than the reverse.

Assume that we are trying to improve the housing conditions of the poor without increasing rent at all. Under the conditions of the model we have been working with, it would make sense to try to identify those buildings that are *about to be* milked, and enforce the warranty to the extent necessary to prevent that outcome. We would ignore (a) those buildings in such bad condition that their owners would abandon rather than comply with the warranty, and (b) those buildings that would stay in the stock after upgrading to the renewable level, but at higher rents.

In other words, we would not enforce the warranty against the worst housing in the stock. We would allow it to deteriorate toward abandonment, or deal with it in some other way (such as by expropriating it for the benefit of its occupants). Instead, we would use the warranty to prevent landlords in declining neighborhoods from beginning to milk before falling rent offers made it necessary for them to do so to avoid a loss. And when we did enforce it, we would do so only to the extent necessary to prevent that kind of milking.

Assuming again the conditions of this model, there would be no reduction in supply due to abandonment and no rent increases due to upgrading. The warranty would extend the lives of low income buildings because it would force landlords to go on maintaining at the renewable level when they would otherwise have chosen to milk toward abandonment. Buildings in declining neighborhoods would still be milked and abandoned eventually, when rent offers fell below the renewable maintenance level. But no building would be milked or abandoned when there were still tenants willing to pay a sum in rent large enough to cover the landlord's cost.

Under conventional assumptions, the increase in the supply of low income housing caused by life extension should depress rents. Since our ultraselective enforcement policy prevents warranty actions from ever increasing rents or inducing abandonment, the rent-depressing effect of life extension would be the only effect in the field. The overall impact of the warranty would be to make

tenants as a group better off at the expense of landlords by increasing housing quantity while reducing its price.[24]

Of course, this case is particularly implausible because it would require the enforcers to make extremely fine discriminations between units. They would have to distinguish failures in maintenance that signaled the beginning of milking (and could be remedied without forcing rent increases) from failures whose correction would produce either rent increases or abandonment. We need to consider the case in which this kind of fine tuning is impossible.

Note that the policymaker has a wide range of choice. At one extreme, she could invest resources in accurately identifying buildings on the verge of milking, while carefully avoiding all others. At the other, she could enforce a warranty designed to upgrade living conditions beyond the renewable level, and enforce it across the board. Selective enforcement means picking a standard and a set of targets with a view to administrative cost, impact on the stock through abandonment and upgrading, impact on the stock through life extension, and impact on living conditions.

As soon as the warranty begins to force some units out of the stock (because it would cost more to upgrade them than can be recovered through rent increases) and to push some into upgrading with rent increases, the overall impact of enforcement becomes indeterminate. Where price and quantity end up depends on how large the supply-increasing, rent-depressing effect of stopping milking is, in comparison with the supply-reducing, rent-enhancing effects of upgrading and abandonment.

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24. The statement in the text is too simple. The initial impact of an anti-milking warranty should be to keep buildings in the maintained category that would otherwise have begun to deteriorate toward abandonment. This should change the relative prices of maintained and deteriorating premises. The price change will have a redistributive effect within the low income group, though its character is hard to predict. As maintained premises get cheaper, deteriorating premises *may* get more expensive. But the movement of tenants into cheaper maintained units should also weaken demand for milked units, perhaps so far that their absolute price falls (though not their price relative to maintained units). Moreover, buildings held in the maintained category by the warranty will eventually reach the point where they do not command enough rent to keep them in the black, and we must then either let their landlords milk them or deal with them in some other way. In other words, the warranty initially chokes off the supply of milked housing, but eventually it resumes. The long-term consequences for the overall cost of low income housing are clearly favorable, but the implications for the composition and relative prices of the low income stock are indeterminate.

VIII. CRITIQUES OF THE SUPPLY EFFECT

It seems to be a common intuition among people with law and economics training that this result just has to be wrong: it should not be possible to help the poor by enforcing the warranty. I will respond here to two different lines of attack.

First, the withdrawal of the milking option reduces the profitability of low income housing by increasing its cost to landlords, and should therefore reduce supply, not just through abandonment but also by reducing new construction and slowing the filtering process. Second, even if life extension through an antimilking warranty drove prices down, any benefit to the poor would be wiped out either by the choking off of filtering (this time by lower prices rather than by higher costs), or by an influx of middle income tenants bidding for upgraded units.

With respect to the first, there are really two arguments. There is the question of the impact on upper income construction of loss of the milking option if and when the building filters down. In other words, a perfectly foresighted builder would calculate into the expected income stream of a new unit some discounted sum reflecting the advantage of milking over maintaining in the final stages of decline. Ackerman argues convincingly that uncertainty as to which neighborhoods will decline and when makes it unlikely that upper income builders' reactions to code enforcement in the slums will have an impact on new construction.[25]

But enforcing the warranty (or code) might affect landlord decisions, and therefore supply, at the point when neighborhood decline begins. Landlords who know they will be forced to keep maintaining, at least until rents have fallen below maintenance costs (plus taxes, insurance, and normal profit), will take a less sanguine view of the future of their investment than they would if they knew they could start to milk whenever it appeared to be the profit-maximizing strategy.

Under the simplest kind of filtering model, this reduction of landlord expectations of gain will not affect the filtering process. The simplest models assume either a chain of single houses of de-

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25. *Id.* at 1117. *Compare* Komesar, *Return to Slumville: A Critique of the Ackerman Analysis of Housing Code Enforcement and the Poor*, 82 YALE L.J. 1175, 1188-91 (1973) (arguing that the costs of a code enforcement program would have a significant effect on new housing construction) *with* Ackerman, *More On Slum Housing and Redistribution Policy: A Reply to Professor Komesar*, 82 YALE L.J. 1194, 1204-06 (1973) (arguing that uncertainties as to the future effects of code enforcement make it unlikely that builders would consider those future costs in new construction planning).

clining quality, or that each neighborhood is homogeneous and filters down as a unit. If this is the case, the effect of new construction at the top of the chain is that each successive owner further down simply loses his earlier tenants who move up.

In this situation owners have no choice but to rent to the people moving in from below, at whatever price will clear the market. The full impact of the prohibition on premature milking falls on low income landlords. Because they are "locked in," meaning that they no longer have higher income tenants, they have to let their units filter. Once they have done this, it is in their interest to go on operating until rent no longer covers whatever maintenance is compelled through the warranty. Even though they could make more money if they were allowed to milk, they will not, as the previous analysis showed, prematurely withdraw their units by abandonment.

Now suppose that new construction for the rich allows more middle income people to move out of their old neighborhood. But instead of imagining that these units go automatically to the poor, imagine that some longtime middle income residents will increase their consumption of space, say turning three-family into two-family houses, if prices are low enough. In this model, the ultimate disposition of the vacancies created by new construction depends on the point of equilibrium between the price middle income people will pay for more space and the price poor people will pay to filter up into a new neighborhood.

Even in this more complicated model, the warranty does not slow filtering. Landlords have no reason to discriminate as between middle income and low income tenants. The whole neighborhood will eventually decline as new construction elsewhere further softens demand. The loss of the option of premature milking means that landlords will have fewer options, regardless of who they rent to.[26]

But now suppose that filtering is occurring in the context of residential segregation by income class, brought about by the willingness of middle income renters to pay a premium to live in an entirely middle income neighborhood. Further suppose a border area or transition zone that is less attractive to the middle class than their core neighborhood, and more attractive to the poor than

26. *But see* Ackerman, *supra* note 3, at 1115-16 (Ackerman argues that code enforcement can reduce trickle-down if landlords in more affluent areas are reluctant to rent to lower income dwellers, in the belief that greater abuse of buildings will result and increase the cost of code enforcement).

theirs. Border landlords can decide which class of tenants to rent to, and their decisions determine the equilibrium position of the dividing line between zones.[27]

Suppose landlords assume that the choice to move a border unit from middle to low income occupancy will likely be irreversible, and that the course of events over the period of decline will be different in the two areas. In the shrinking middle income area prices will decline, but more slowly than in the low income area, as the middle class departs and the better off among the poor move in behind them. Abandonment occurs only in the core of the low income area.

Under these assumptions, the milking option is likely to be more attractive to low income than middle income landlords. A border landlord who loses the milking option because of the warranty will find low income tenants marginally less attractive, compared to middle income tenants, than he did before. It follows that enforcing the warranty might slow the rate of filtering. Softening demand has to drive prices down further in the middle income area before it makes sense for a border landlord to switch a unit from middle to low income occupancy. (On the other hand, it is easy to imagine that neighborhood effects, in this case group expectations about what is going to happen to the border zone as a whole, will be so strong that a unit will filter or not on that basis, without much sensitivity to changes in the profitability of individual buildings.)

What this means is that in estimating the overall impact of enforcing the warranty, we have to take account of the possible slowing of the filtering process, along with abandonment and rent increases through upgrading. This is an effect we cannot evade even by highly selective enforcement.

When we turn to the impact of a fall in rents, the situation is less complex. First, it is correct that if the warranty increases supply and decreases rents, there will be a slowing of the filtering process. But this is not a coherent objection to the claim that the warranty will help the poor at the expense of their landlords. The reduction in filtering occurs because the poor are unwilling to bid as much for housing filtering down as they were before life extension increased the low income stock. As a result, middle income renters will acquire a greater share of the space made available by

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27. *See* Montgomery & Mandelker, *supra* note 5, at 192-99 (excerpt from C. LEVEN, J. LITTLE, H. NOURSE & R. READ, NEIGHBORHOOD CHANGE: LESSONS IN THE DYNAMICS OF URBAN DECAY 37-47 (1976)).

new construction for the rich. The warranty therefore benefits them as well as those below them in the chain.

Second, the filtering model presupposes that the poorest households rent at the bottom of the chain. If enforcing the warranty were to increase supply by extending the lives of buildings that were about to be prematurely milked, and drive down the prices for units at the end of the chain, it is possible that there would be an influx of middle income people who would bid these now cheap units up and away from the poor.

The model we have been discussing is one of neighborhood decline. Within the standard filtering analysis, incomes do not increase and their distribution does not change. New construction by the rich is the motor that drives the system. The reason for premature milking is failure of demand for maintained low income housing.

In this model, there will indeed be some influx of middle income tenants to the low income neighborhood in response to a fall in rent there. But this effect, like the slowing of filtering, occurs because the poor are no longer willing to pay enough for now more plentiful housing to keep all of it in their hands. If the warranty depresses rents, some middle income families will bid against existing residents, and the border between neighborhoods may move. Middle income people will thus benefit. They will filter backwards to the extent that the slackening of low income demand makes it cheaper for them to convert in the slums than to move up the chain in response to new construction by the rich.

This is not to deny even for a moment the reality of the phenomenon of gentrification, in which increased and redirected middle class demand displaces and impoverishes low income tenants. When this happens, it is typically driven by market forces that dwarf the conceivable impact of a warranty that merely requires maintenance at the renewable level. It would be silly to blame it on the warranty, or as I will argue later on,[28] to expect the warranty to do more than a little to stop it. We need other ways to deal with it (rent control, eviction for cause laws, condo conversion restrictions, removal permits, and so forth).

But it is wrong to conclude from the fact that gentrification occurs that it is occurring or will occur everywhere. In many neighborhoods and indeed whole regions of the country there is little or no danger from this direction. The argument for the warranty is

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28. *See infra* pp. 517-18.

addressed to those situations where the reality is neighborhood decline and the goal is to stop displacement through abandonment rather than through middle class buy out.

I conclude that it is perfectly possible that an enforcement campaign that attacked all substandard conditions could slow down premature milking so much that, even with substantial upgrading and abandonment, rents would end up lower and quantities greater than they were to begin with. But the campaign could end up with just the opposite result, or it could improve quality while leaving price and quantity unchanged. Which it will be is a question that can be settled only by an appeal to the facts of particular cases. Microeconomic theory at this level of abstraction cannot tell us what to expect.

It is an important corollary that a policymaker working with this model does not have to choose between comprehensive enforcement and no enforcement at all. In this respect, the model is strikingly different from Ackerman's. If we can identify with confidence a single unit that is about to be prematurely milked, it makes sense to enforce the warranty against it to extend its life in the stock. This will increase supply, however marginally, and put downward pressure on rents.

IX. Factors Conducive to Milking

It should also be possible to identify institutional factors that are conducive to milking, in the sense of making it more likely that a landlord will see it as in his interest to suspend (or dramatically reduce) maintenance and take his chances on losing the building. This section makes a preliminary catalogue of such factors.

(1) Unlike the owner for the long term, the milking owner does not expect to be able to sell the building but rather to abandon it. Subject to the considerations in section (4) below, he has few incentives to pay property taxes if the city will not foreclose its liens and take the building before he has finished with it. If the city has a policy of slow or otherwise lax enforcement, the owner will find milking more attractive than it otherwise would be. Conversely, if the city makes it impossible or very difficult for owners of property in declining neighborhoods to obtain tax abatements reflecting lower values, the cost of the maintenance strategy will be greater than it "ought" to be on the assumption of 100% valuation.

When a milker can simultaneously stop maintaining and stop paying taxes, while a maintainer must pay the city on the basis of

an unrealistically high valuation,[29] the city is inadvertently pushing housing into the milking category. Many cities in decline have been reluctant either to adjust valuations or to take buildings for nonpayment[30] (because they fear that doing so would accelerate abandonment, because of antiquated underfunded administration, because of corruption, or for all three reasons).

(2) Banks may respond to decline, or to racial transition, by "redlining," that is, by reducing or eliminating mortgage money for the neighborhood.[31] Redlining makes it hard for landlords to finance major maintenance, and drives resale values down. New buyers must scramble for the available bank funds, or look for sellers who will take back purchase money mortgages. A simultaneous increase in the financial cost of maintenance and decrease in resale value will tilt marginal owners into the milking strategy.

(3) To the extent a milker can recoup some of his investment at the end of the process, this course of action becomes more attractive relative to a maintenance strategy. One possibility of this kind is arson. If owners can insure buildings for sums of money that reflect their maintained value, and then burn them and collect the proceeds at the end of the milking process, milking will be dramatically more profitable, compared to maintenance, than it would otherwise be. Brady's[32] studies establish both that arson for profit has been a serious problem in declining neighborhoods, and that it is often part of a milking strategy.

(4) If there is a possibility that a declining neighborhood will eventually be converted from low to middle or high income housing, milking may make sense as a form of speculation. The owner calculates that if conversion and the displacement of the low income population eventually occur, there will be massive rehabilitation, or the leveling of existing structures to make way for new construction.

When this happens, the value of neighborhood land may actually be greater without buildings than with them, even if they have been maintained at reasonable levels in the interim. The chance that increased land values may eventually allow recoupment of any possible loss from building deterioration makes milking a more and

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29. *See* G. PETERSON, A. SOLOMON, H. MADJID & W. APGAR, JR., PROPERTY TAXES, HOUSING AND THE CITIES 26 (1973).

30. *Id.* at 44.

31. *See* Note, *Attacking the Urban Redlining Problem*, 56 B.U.L. REV. 989 (1976).

32. Brady, *The Social Economy of Arson*, 6 RES. IN LAW, DEVIANCE & SOC. CONTROL 179 (1984).

maintenance a less rational strategy. (It may or may not provide an incentive to pay taxes, depending on whether slow foreclosure and resale, along with protracted protection of the owner's equity of redemption make it rational to gamble on nonpayment.)[33]

(5) In deciding between maintenance and milking, an owner may be influenced by the possibility of bailing out at the end by selling at an above market price to a newcomer from a poorer neighborhood who (a) is excluded from the purchase of housing elsewhere by racial discrimination, and (b) underestimates both the likelihood of further decline and the costs of ownership.[34]

These buyers may be able to borrow funds through subsidized or defrauded government programs, or they may be willing to give purchase money mortgages that leave them with negative equity from the start. They are also likely to be undercapitalized, because there is a discontinuity in the supply of capital to them. A higher cost maintenance strategy will be less viable *for them*, and milking consequently more attractive, than would be the case for mainstream investors.

(6) The milker may be part of a quasi-criminal subculture that can evict illegally (to enforce payment of rent or resist tenant demands for maintenance), obtain capital outside legitimate channels, and burn buildings for profit, all at lower psychic costs with lower risks of detection or punishment than would be the case for mainstream bureaucratically organized investors.[35] (There is no reason to believe that milkers will make super profits, or that they will be individually wealthy. Indeed, the evidence suggests that there are all kinds.)[36]

(7) Once a landlord adopts a milking strategy, it may quickly become irrational to reverse it even in the face of improving conditions. Deferred maintenance will cost more when finally undertaken than it would have if done on a "normal" schedule. When the boiler breaks down and is not repaired, pipes eventually freeze, leaking water causes structural damage, and the costs of "rehab" are far greater than what the landlord initially saved on the boiler. The result is a "ratchet" effect in which the costs of reversing decline through an upgrading strategy get higher and higher as time passes.

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33. *Id.*

34. *See, e.g.*, Gottlieb, *FHA Case Recalls Bushwick in 70's*, N.Y. Times, Feb. 2, 1986, at 35, col. 4.

35. Brady, *supra* note 32.

36. G. STERNLIEB, THE TENEMENT LANDLORD 76-97 (1969).

These factors conducive to milking make it plausible that in many real world situations landlords will abandon buildings well before the time when they no longer command enough rent to cover maintenance at the renewable level. The same conclusion flows from a conventional transaction cost analysis of the impact of a mortgage on milking.

X. The Impact of a Mortgage on Milking

Suppose that low income rental housing is quite heavily mortgaged at the time neighborhood decline begins, as is often the case. Decline will quickly put the highly leveraged owner into a situation of negative equity, meaning that if he sold the building the proceeds would not cover the mortgage. The bank would generally then have the right to seek a deficiency judgment against his other assets. As the neighborhood declines, his rent roll will fall, and, because of his monthly mortgage payments, he will confront a negative net cash flow (as well as negative equity) long before an outright owner would. (Net cash flow equals rent roll minus maintenance, administrative expenses, taxes, insurance, and mortgage payments.)

Assuming for the moment that his bank will not negotiate with him, his choices are: (a) continue as before, losing money every month, (b) sell or default, and face a deficiency judgment, or (c) keep up the mortgage payments but reduce maintenance or tax payments or both. (Note that holding on to the building will not necessarily greatly increase the owner's equity, since many mortgages on slum property have "balloons," meaning that most of the loan comes due at term.)

Imagine two buildings in a declining neighborhood, identical except that one is mortgaged and the other is not, at the moment when the encumbered building goes into negative net cash flow. As of this moment, the mortgaged owner is more likely than the unencumbered one to figure it is in his interest to begin milking, rather than selling or maintaining, simply because he has no equity at stake if he milks, can maintain only at a loss, and faces a deficiency judgment if he bails out.

As long as rent covers the mortgage (supposing the city will not foreclose at all quickly), the building is like an unmarketable bond—it just keeps on producing income at no cost. It is true that if he does not maintain it will eventually be worthless, but it is *already* worthless to an owner with negative equity. When it becomes uninhabitable, the owner will abandon it, and take his

chances with what may then be a much smaller (also possibly larger) deficiency judgment if the mortgage is not yet paid and the bank goes after him.

This course of action *might* be the one the bank itself would choose for the owner if the only alternative were sale for what the market will bear. The bank will prefer milking to sale when the proceeds of sale and deficiency judgment would be less than the discounted value of the stream of mortgage payments the bank can anticipate during the milking process (adjusted for the increased riskiness of the loan as the neighborhood declines and the deteriorating tax-delinquent building loses its value as security).

The bank might also be biased against foreclosure by internal bureaucratic factors (loan officers do not like to admit mistakes), or by contingent factors like a decline in mortgage interest rates. But it is overwhelmingly likely that the bank would prefer continued maintenance, at a loss to the owner, over milking.

If there were no transaction costs, the bank would find out about the decline in value and about the owner's decision to milk, and then confront him with foreclosure on the ground that he was impairing their security. The owner would then have to choose between foreclosure and maintaining at a loss so as to keep the mortgage. Or he might make a deal, perhaps agreeing to put some money into the building to preserve it as security, and to pay taxes, in exchange for being allowed to continue to milk.

A better deal might involve some forgiveness or reduction of mortgage payments in exchange for some increase in maintenance. But given that the bank has an effective threat and a conflict of interest with the owner, *any* deal will be worse for him than his original choice of milking pure and simple.

In real life, the owner may be able to avoid having to make any such concessions to the bank just because it is too expensive for the bank to extract them. The owner can conceal or just not report the facts that would indicate milking. The costs to the bank of getting information about mortgagors, proving impairment of security, processing foreclosure and resale, and especially of actually collecting a deficiency judgment, may all be great enough to impose a strong bias in favor of letting the owner do what he wants. On the other side of the ledger, it is hard to see how transaction costs will ever promote a long-term maintenance strategy.

If we look at the overall impact of mortgages, we can conclude that they will put owners into negative equity and negative net cash flow much earlier than would happen if they held unencum-

bered. At the point at which the mortgagor has to choose between sale with a deficiency judgment, continuing prior maintenance levels at a loss, and milking, the unencumbered owner still has positive equity and positive cash flow, though both are declining. Mortgaged owners are therefore likely to adopt milking strategies before unmortgaged ones. This initial tilt may be counteracted by the intervention of bank mortgagees trying to preserve the value of their security. But because intervention is costly, it is unlikely to fully compensate for the initial effect.

XI. Abandonment of a Mortgaged Building Does Not Indicate That It Was Unprofitable

When a mortgaged landlord milks his building and then abandons it, he may explain his action by saying that "the building was unprofitable" and that the tenants "were unable to pay enough rent to make it possible to maintain the building." From the landlord's point of view, this statement is quite true. But it is completely false, counterfactual, from the point of view of the economy.

The tenants were unable to pay enough rent to cover maintenance *and* the landlord's mortgage and taxes. If the landlord had resold the building, he would have suffered a loss (and possibly a deficiency judgment), but *the new owner would have been able to make a profit by maintaining the building as a long-term investment*. Because of the lower sale price, a new owner's mortgage and taxes would have been lower (unless the city refuses to abate).

If the rent roll declined again, another sale at a yet lower price could again reduce mortgage and taxes. Until the rent roll falls to a level below the cost of standard maintenance, so that the building has zero market value as a long-term investment, it is wrong to say that it is "unprofitable," given that *someone*, even if not the current owner, could make money off it.

Milking induced by the particular interests of mortgagors with negative equity and cash flow is not in itself an indication that the poor cannot pay the true cost of decently maintained housing. Abandonment by the mortgagor reflects inability to pay the cost of amenity only when milking starts *after* the building is in such bad

shape, and the tenants' incomes are so low, that the tenants could not afford to keep it up even if they owned it outright.[37]

If we could use the warranty or code enforcement to prevent milking induced by transaction costs in the mortgagor/mortgagee relationship, we would induce the results favored by conventional efficiency analysis. The distributive effect of intervention should be to impoverish mortgagors and improve the situations of mortgagee banks and low income tenants.

XII. Neighborhood Effects and Unstable Equilibrium

In this section, I will argue that premature milking plays a more important role in the dynamics of neighborhood decline than appears from the analysis of individual buildings. Because the decision of one landlord influences that of his neighbors, there may be external effects, downward vicious cycles, and prisoner's dilemmas that lead to far more milking than suits *anyone's* interests.[38] Where this is the case, warranty or code enforcement may work to bring about results that look good in efficiency terms, and, as in the mortgagor/mortgagee situation, redistribute favorably to low income tenants.

People's decisions about how to treat the housing they own are affected by the decisions of their neighbors. For example, the value of rental property is a function not only of structure and upkeep, but of the structure and upkeep and occupancy of nearby buildings. Indeed, it is often the case that the market perception of the desirability of a neighborhood has a strong enough effect on the value of any given house to dwarf the impact on value of individual owner decisions about maintenance.

Because of these interconnections or externalities, it is possible for all the landlords in a neighborhood to find themselves "forced" to make investment decisions that all agree are worse for them than those that would occur if it were possible for them to act in concert. For example, every landlord might be able to invest more in maintenance of existing structures, hoping thereby to get higher rents and increase property values, were it not for the fact that

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37. An egregious example of the error discussed in the text occurs in Meyers, *supra* note 23, at 890-91. Meyers' article is probably the most misleading in a generally misleading body of literature. *See* Ackerman, *supra* note 3, at 1103 n.14.

38. On neighborhood effects and prisoner's dilemma, see the editors' note in Montgomery & Mandelker, *supra* note 5, at 188-92.

each believes that others are and will continue disinvesting, so that the neighborhood is in an inevitable state of decline.[39]

The most important implication of neighborhood effects is the possibility of an "unstable equilibrium" or "downward vicious cycle" in those neighborhoods that are at the end of the filtering chain.[40] Remember that in its own terms the filtering model requires a process of declining housing values leading ultimately to abandonment or conversion. If neighborhood effects come into play, this process may not be "orderly": it may not lead to gradual declines with abandonment only of those units that have become unrentable because there is better housing now available to their former tenants.

Rather, the softening of values in a lower income neighborhood, along with the gradual influx of poorer tenants who are "filtering up" as old residents themselves move up and out, may cause a chain reaction. In particular, the milking of a building may destroy the viability of its neighbor so that it too has its highest valued use as a wasting asset. This is "blight." "A bad apple spoils the barrel." One shooting gallery spoils the neighborhood.

A milking outcome for the whole neighborhood may be the result of a prisoner's dilemma in which no owner can afford to invest in maintenance because so long as all other owners are milking, the investment is overwhelmingly likely to be lost. If it were possible to make and enforce an agreement to maintain without cost, such an agreement might be the most profitable strategy for all.

Once the downward chain reaction gets going, it may lead to far more abandonment in the neighborhoods where it began than the filtering model requires. Conversely, other neighborhoods that might, in an "orderly" process, undergo moderate decline may escape unscathed. Because of neighborhood effects and unstable equilibria, the market process of adjustment to new upper income housing construction in the suburbs may be a random but dramatic pattern of low income neighborhood destruction, combined with an equally random pattern of low income neighborhood stability or even upgrading.[41]

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39. Davis & Whinston, *The Economics of Urban Renewal*, 26 LAW & CONTEMP. PROBS. 105 (1961).

40. On unstable equilibrium and vicious cycles, see generally G. MYRDAL, ASIAN DRAMA 1843-78 (1970). For these ideas applied to neighborhoods and housing, see R. GOETZE, UNDERSTANDING NEIGHBORHOOD CHANGE (1979).

41. Four very different approaches to the issue of inner city abandonment support the generalizations in the text. *See* Montgomery & Mandelker, *supra* note 5, at 192-199 (excerpt

XIII. Racism in the Filtering Process

Racism pervades the low income housing market, affecting the housing conditions of the poor in many different ways. Here we are concerned with classic housing discrimination.[42] Housing discrimination constricts the black population of a city to a limited number of neighborhoods, whether by the use of force against black pioneers in white neighborhoods or through nonviolent refusals to sell or rent. It slows the filtering of units to poor blacks by preventing them from moving into white neighborhoods where values are softening due to the movement to the suburbs. The limiting of the possible supply of housing for the black poor will drive up the price even of unmaintained shelter in the ghetto, thereby squeezing low incomes.[43] The squeeze means that poor black families will have less disposable income available to bid for amenity through maintenance at the renewable level.

The smaller the income available to bid for amenity, beyond what is necessary to buy the worst shelter, the more likely it becomes that the best course for the landlord is to milk the building. (As we saw earlier, milking becomes more profitable relative to maintaining as the premium for amenity gets smaller.) Milking ghetto buildings to abandonment means a permanent reduction in the low income housing supply, since incomes are too low to sustain new construction and discrimination prevents moving into neighboring areas (except in tipping cases). The result will be to raise the price of unmaintained shelter still higher, further reducing the desirability of maintaining vis-a-vis milking, and so on.[44]

This might be called the self-feeding effect of racial discrimination on milking: Discrimination constricts the supply of bad housing by raising its price, which sops up the income available to bid for amenity through maintenance, making milking more attractive, and through milking further reducing the supply of housing while raising its price.

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from C. Leven, J. Little, H. Nourse & R. Read, Neighborhood Change: Lessons in the Dynamics of Urban Decay 37-47 (1976)); The President's Nat'l Urb. Pol'y Rep. 5-17 (1980); M. Castells, The Urban Question 402-11 (1977); O. Newman, Community of Interest 78-99 (1980).

42. *See generally* D. Fusfeld & T. Bates, The Political Economy of the Urban Ghetto (1984); A. Hirsch, Paper Presented at the Consultation/Hearing of the United States Commission on Civil Rights (Nov. 12-13, 1985), *reprinted in* 1 Issues in Housing Discrimination 56 (1986).

43. *See* Rose-Ackerman, *The Political Economy of a Racist Housing Market*, 4 J. of Urb. Econ. 150 (1977).

44. *Cf.* R. Muth, Cities and Housing 127, 135 (1969).

XIV. The Impact of Milking on Filtering

"Filtering by catastrophe" defeats the whole idea of filtering as a benign social policy. It can mean that the poor move up from neighborhood to neighborhood without any improvement in the quality of their housing. Rather than new construction in the suburbs making room for better housing at the bottom of the chain, filtering by catastrophe just moves the bottom around geographically, or even causes it to deteriorate. Given unstable equilibrium in low income markets, there is nothing in the system to prevent the poor from ending up paying rents that are sufficient to maintain housing in good condition, but which in fact buy them dramatically substandard accommodations. When a landlord decides that the highest valued use of a viable building (one that could be profitably maintained as a long-term investment) is in fact to milk it, his decision directly increases the likelihood of such a disastrous outcome.

We saw in the case of the heavily mortgaged owner that milking may be the best choice at a time when maintaining the building would still be profitable to an unencumbered owner. We saw also that there are strong elements in low income neighborhoods, from tax policy to arson to the hope of eventual gentrification or racial transition, that may induce a landlord to milk a building that is viable.

Each of these factors is intensified by neighborhood effects, the possibility of downward vicious cycles, prisoner's dilemma, and the "self-feeding" effect as racial discrimination reduces supply, drives up the price of bad shelter and pinches the resources available to pay for amenity. In this way, not only can milking happen to a single viable building, it is also a *social process*, that can wipe out a whole viable neighborhood.

When this occurs, milking sops up the units that were supposed to reduce the cost (unmaintained) of the least desirable shelter to zero while steadily improving its quality. It eliminates the potential benefits of the new construction at the top of the chain that touched off the process in the first place. And it leads to lower living standards for the poor, because rents for both maintained and dilapidated units will be higher, and amenity consequently lower, than would have been the case if the milked buildings had remained in the stock. In short, by increasing, perhaps dramatically, the scarcity of buildings at the end of the chain, it reduces the purchasing power of the low income dollar.

We might be able to counteract these effects by enforcing the warranty or code to prevent milking of viable buildings. There would be fewer neighborhood effects, less probability of a downward chain reaction, no prisoner's dilemma at the bottom, and no self-feeding through inflation of the price of bad shelter. The enforcement of the warranty might therefore do more than increase the supply by saving individual buildings. It might stabilize changing neighborhoods by reducing the tendency toward cumulative decline.

XV. What To Do With Nonviable Buildings

In the early stages of warranty enforcement, there would be many buildings that would be viable had they been maintained, but which have been (illegally) milked into an irreversibly deteriorated condition. Moreover, if enforcement took place in the context of a (stabilized) filtering process, new buildings would constantly reach the point where their landlords would just abandon if not permitted to milk, as the movement of low income people out of their old neighborhoods into new ones gradually reduced the rental value of the worst slum units. If there are poor people who cannot pay the costs of maintaining their housing as a long-term investment, and no assistance is available to them, it *may* be a good idea to let them rent from landlords who are minimizing the losses associated with such nonviable buildings by milking toward abandonment.

Furthermore, even tenants who could pay for maintained premises may prefer to live in buildings landlords are milking at the end of the chain, if they would rather spend their money on things other than housing amenity. In each of these cases, milking becomes an issue of paternalism: To what extent do we want to impose minimum living standards on adults and their children, when we are unwilling to make available enough income so that tenants will voluntarily pay for those standards.

I think a good case can be made for enforcing the warranty and forcing the abandonment of nonviable milked housing, even though doing so imposes minima by the cruel device of forcing displaced tenants to double up. (The argument is frankly paternalist, but also relies on external effects on children and neighbors of tenants in substandard housing.) But there may be an even better case for cities taking over nonviable buildings through eminent do-

main and distributing them to low income tenants as limited equity co-operatives.[45]

To begin with, in valuing a nonviable building for just compensation purposes, we should ask what market price it would bring if sold subject to an easily enforceable legal duty to bring it up to the warranty standard. If it is possible to rehab the building and make money off it maintained, so that the market value of the building with this legal liability attached is positive, then the building is viable, and we are back to a situation in which enforcing the warranty to the hilt will help the tenants (by forcing resale to a buyer who can make a go of it). If the building is truly nonviable, this price will be zero.

Having taken the nonviable low income housing stock for zero compensation, the city could improve the situation of those tenants who have to or want to live at the absolute tail end of the filtering chain by simply handing their apartments over to them for free. This eliminates whatever rent the milking landlord was able to derive from the absolute scarcity of housing at the bottom (as opposed to rent based on location or maintenance services).

But there are numerous other possibilities, including city rehab through bond issues with the city becoming the landlord, and, my preference, the limited equity co-operative. This is not the place to explore these choices. The key point is that the city should pay nothing when it takes, and should dispose of the buildings to increase the welfare of the poorest tenants while minimizing shrinkage of the stock.

XVI. THE IMPACT OF THE WARRANTY ON GENTRIFICATION

Of course, filtering does not work for many other reasons than milking. Note especially that increased demand from middle and lower middle class consumers, who cannot afford to build new houses but can afford to increase their consumption of the existing stock, can absorb all filtered units before any of them reach the

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45. *See generally* Mandelker, *Housing Codes, Building Demolition, and Just Compensation*, 67 MICH. L. REV. 635 (1969). On limited equity cooperatives, see Kirkpatrick, *Limiting the Equity in Housing Cooperatives: Choices and Tradeoffs*, ECONOMIC DEVELOPMENT AND LAW CENTER REPORT, January/March 1981; Rocket, *A Program for Community Ownership of Residential Property* (1982) (unpublished manuscript available at the Cooperative Housing Task Force, Boston, Massachusetts); Newman, *An Overview of the Low Income Retained Equity Housing Cooperative Model*, 8 LAW & HOUSING J. 21 (1980); Sanchez, *Limited Equity Housing Cooperatives, A Case Study* (1987) (unpublished note on file, *Florida State University Law Review*).

poor at the bottom of the chain. If the middle and upper classes are increasing their shares of the pies of income and wealth relative to the poor (as they are at present), there is the distinct possibility of reverse filtering, or gentrification. In this process, higher income people bid for the buildings now occupied by the poor, displacing some directly, and increasing rents for everyone.[46] Even in this desperate situation, the warranty may be helpful.

One motive for milking may be speculative: The owner is betting that the neighborhood will gentrify, and the cheapest way for him to buy into that possibility is to buy a building and milk it. If a speculator had to maintain any building held for possible gentrification, the costs of converting a neighborhood and displacing its older residents would be marginally higher than it is now. In other words, middle and upper income renters, condominium owners, and homeowners would have to pay marginally more and wait marginally longer before moving into their new premises, and the poor could hold on a little longer in their old ones.

Note, though, that the time factor is crucial. Enforcement of the warranty after a building is no longer viable *will indeed* cause the owner to abandon it, since milking is irreversible. And enforcing the warranty against a speculator who has bought expecting to be able to milk may cause him to *accelerate* the gentrification process by selling earlier than he would have had he been allowed to continue to milk. Enforcement will only work if it pushes up the *ex ante* costs of the milking strategy, and it will do this only if potential milkers have a rational expectation that they will be sued or prosecuted if they attempt it.

XVII. CONCLUSION

The problems of defining guidelines for identifying buildings that are viable, of framing rules so that they are administrable, and of choosing between public and private enforcement, or a combination of the two, are all difficult.[47] An experimental attempt at serious code or warranty enforcement would have to face these

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46. *See* Marcuse, *Gentrification, Abandonment, and Displacement: Connections, Causes, and Policy Responses in New York City*, 28 WASH. U.J. URB. & CONTEMP. L. 195 (1985). On the underlying demographic forces behind gentrification, see Alonso, *The Population Factor and Urban Structure*, in THE PROSPECTIVE CITY 32 (A. Solomon ed. 1981).

47. On the institutional obstacles to enforcing the warranty through private actions, see Lazerson, *In the Halls of Justice, the Only Justice Is in the Halls*, in 1 THE POLITICS OF INFORMAL JUSTICE 119 (R. Abel ed. 1983); AMERICAN CIVIL LIBERTIES UNION, JUSTICE EVICTED (1987).

problems, but I have nothing to say about them here. My argument has been that the "mainstream" analysis that would advise against such an experiment is incomplete because it leaves out potential supply-increasing effects of the warranty. Welfare economics does not, contrary to the mainstream view, suggest that the warranty will hurt the poor. Rather, the impact of comprehensive enforcement is indeterminate without detailed contextual analysis, and there is no reason in principle why selective enforcement should not reduce the price and increase the quantity of low income housing.