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U.S. AND GERMAN HOUSING MARKETS
AND POLICIES: A COMPARATIVE
ECONOMIC ANALYSIS

BY

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U.S. AND GERMAN HOUSING MARKETS
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Konrad Stahl and Raymond Struyk

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Analysts involved in reconsidering a nation's housing policy have found it useful for a long time to compare their country's consumption patterns and policies with those of other countries. A comparison of housing consumption patterns against those of a reference nation often serves to justify a change in housing consumption norms, and can thereby lead to adjustment of housing policy objectives.¹ Similarly, international comparisons of housing policies often serve to justify local policy changes, especially if coupled with statements of policy impacts observed in other nations.²

The literature on comparative housing focuses on two aspects: (1) describing and comparing aggregate housing consumption patterns³ and (2) comparing institutional aspects of housing policies.⁴ Most of these studies pay little attention to possible differences in the microeconomic structure of the respective housing markets, as caused not only by variations in their institutional arrangements, but possibly more fundamentally by differences in housing market behavior. These differences may turn out to be important, because identical housing policies applied to markets of different structure may not only have different implicit objectives but also have quite different impacts. These factors limit the ability to transfer policy options across countries.

1. An example in point is the comparison of West Germany's rates of owner occupancy with American rates. Such a comparison in the Federal Republic of Germany was used to justify the promotion of policies to increase that rate.

2. Consider the discussion on "leased housing" in the Federal Republic of Germany in 1977/78, which was also transferred from the United States.

3. See, for example, Grebler and Burns (1976).

4. See, for example, McGuire (1981).

In this paper we present observations on such differences in the structure of West German and American housing markets. It turns out that by the neoclassical economist's yardstick, West German housing markets appear to function much less "properly" than do American ones.

Several general questions can be raised about this conclusion. First, there is a question of interpretation: Given the quite strong similarities in the overall structure and performance of the respective national economies, how can such a difference be explained? Can it be traced back to differences in the evolution of the economic environment, in particular to institutional differences in the housing market or differences in policies applied thereto; or is it related to more fundamental behavioral variations?

Second, there is a question of evaluation: Which market performs better by efficiency and distributional standards? In particular, can we say that because the U.S. market behaves more in keeping with the neoclassical prototype it performs better by such standards? What consequences follow from this on the evaluation of housing policies? There is also a methodological question: If the observed differences are really related to dissimilarities in housing market behavior, is it appropriate to base a comparative analysis on methods that rest on assumptions of fundamentally similar behavior?

Rather than resolving all of these questions, this paper exposes some key cross-national differences in housing market behavior, and goes some way towards

explaining them. The emphasis is on comparative analyses of the behavior of households and suppliers in different market environments. We wish to provide a first step toward an expanded and, we believe, exciting program of analytical research on the international comparison of housing market performance and policies.

The remainder of this paper is organized as follows. The next section discusses the most important observed differences in housing market structures and outcomes that have resulted from behavioral and policy differences. The third section contrasts some of the principal housing policies of the two nations. The paper concludes with a summary.

Comparison of Housing Market Structure and Outcomes

In this section we report on what we believe to be the most salient differences between the housing market structures and outcomes of the two countries. The discussion draws on empirical evidence from many sources that is used to illustrate our points, not to "prove" them in a rigorous way.⁵ Similarly, our explanations and evaluations are informed but intuitive in a number of cases. These speculations and observations are presented to provide a comprehensive image of the two housing markets. Evidence marshalled elsewhere,^{5A} however, lends support to many of the points made here.

5. If unreferenced, the evidence is obtained from the 1980 Census of Housing for the United States, and from the 1 percent Housing Sample of 1978 for the Federal Republic of Germany.

5A. In Stahl and Struyk (1984)

Seven points strike us to be key in comparing German and U.S. housing markets.

1. The price of newly constructed dwelling units is dramatically higher in West Germany than in the United States. The 1978 average sales price for newly constructed single-family houses was \$62,500 in the United States and about \$167,500 in West Germany at the then-current exchange rate.⁶ In recent years, to build roughly the same number of housing units per capita the two countries spent very different percentages of their gross national products -- 4.5 percent in the United States, 6 to 7 percent in West Germany.

Part of this difference is accounted for by the differential cost of land available for new construction. In 1978, the average price per lot used for erecting a single-family home was \$12,500 in the United States, whereas in West Germany it was \$31,700. Part of this difference is due to the high population density in the Federal Republic of Germany -- about ten times the United States density.⁷

How can the rest of the difference in housing cost be explained? If we exclude the use of inferior building technologies in the Federal Republic of Germany and difference in short-run rents to the supply sector, the cost differences can be explained by differences in the quality or durability of the units, or by input price differentials.

6. No data are currently available for comparisons of the cost of dwelling units in multifamily structures.

7. We lack comparable figures on the price per unit area of developed land. However, that price should differ even more, because the average lot size per single family home is much larger in the United States.

Casual observation, as well as some evidence to be discussed later, suggests that the consumption quality or flow of housing services provided by American single-family homes at completion time is higher than that of German homes.⁸ Most of the remaining difference then must stem from input price differences and differences in the durability of structural components of the dwelling. The latter, particularly, should be much higher in the Federal Republic of Germany, owing to custom and, to some extent, to overly rigid building codes.⁹ While durability differences do not show up very much in the figure on dwelling age given in table 1, it should be kept in mind that about 40 percent of the German housing stock from before World War II was lost in the war. Only because of this the age of housing stock is roughly comparable in the two countries. Some idea of the relative durability of housing units can be obtained from our rough estimates of average annual withdrawals from the housing stock. The withdrawal rate in the United States is three times that in West Germany -- 0.39 percent as compared with 0.13 percent.

There is one qualification to all this, which is related to a principal difference in the organization of markets for newly constructed single-family houses. In the United States, most such homes are provided by commercial suppliers. By contrast, most German homes are custom designed to the demands of a particular household, who, with the help of the architect, obtains the inputs necessary for construction. In 1982 for instance, 61.4 percent of all dwelling units

8. The only counterfactual coming to our mind is that virtually all German houses are equipped with a full basement, as compared to less than one-third of the American ones.

9. Examples of these will be discussed in the next section.

Table 1

UNITS BY AGE OF STRUCTURE

	Percentage Units Built				Total	
	Up to 1939	1940-64	1965-March 70	After April 1970		
United States	32.7	36.1	11.4	19.7	100	
	Up to 1918	1919-48	1949-69	1965-71	1972+	Total
Federal Republic of Germany	23.3	14.7	34.2	12.7	15.0	100

Sources: U.S.: Annual Housing Survey, 1978; Federal Republic of Germany: 1 percent Housing Sample, 1978.

in Germany were constructed by private households. While this may be a costly approach, it also fosters the accumulation of sweat equity that does not show up in figures on construction costs or new home prices. We do not know which one of the effects dominates the other but we guess that the cost-reducing effect of increased sweat equity is dominated by the cost increases due to foregone scale economies.

2. There is another remarkable difference on the supply side of the housing sector: The share of dwelling units contained in multiple-unit structures is much higher in West Germany than in the United States. As one might expect, the major share of owner-occupied units in both countries consists of single-family homes, but the proportion is higher in the United States than in West Germany (see table 2). More surprising, this is also the case for rental housing. All of this could be traced to the cost differentials in land and construction discussed above but could also be the result of differences in zoning practices.

3. Given that difference in the composition of the housing stock, one expects, quite correctly, that American units are larger on average. This is shown in table 3, which compares the percentage distribution of dwelling units by number of rooms. The observed difference in the size distributions does not reflect larger sizes of U.S. households. The comparison of household sizes given in table 4 points rather to the opposite. Given all this, it does not come as a surprise that the per-capita consumption of housing services is much higher in the United States than in West Germany. One indication of consumption is the amount of floor space per person. The figures are 635 square feet in the United States¹⁰ and 335 square feet in West Germany. This

10. U.S. Energy Information Agency (1981).

Table 2

STRUCTURES BY NUMBER OF DWELLING UNITS

	<u>Number of Units in Structure</u>				<u>Mobile homes</u>	<u>Total</u>
	<u>1</u>	<u>2</u>	<u>3-4</u>	<u>5+</u>		
<u>United States</u>						
all units	67	6	5	17	5	100
owner-occupied	87	3	1	3	6	100
rental units	31	12	12	43	3	100
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4+</u>	<u>Mobile homes</u>	<u>Total</u>
<u>Federal Republic of Germany</u>						
all units	24	22	8	46	0	100
owner-occupied units	56	29	5	10	0	100
Rental units	6	19	9	66	0	100

Sources: U.S.: 1980 Census of Housing (provisional); Federal Republic of Germany; 1 percent Housing Sample, 1978.

Table 3
 PERCENTAGE OF UNITS BY NUMBERS OF ROOMS

	<u>Number of Rooms</u>			
	<u>1-2</u>	<u>3-4</u>	<u>5-6</u>	<u>7 or more</u>
United States	4.8	30.7	43.8	20.7
Federal Republic of Germany	9.4	49.4	30.2	11.0

Source: U.S.: Annual Housing Survey, 1978; Federal Republic of Germany: 1 percent Housing Sample, 1978.

Table 4

HOUSEHOLD SIZE DISTRIBUTION

	<u>Number of Persons in Household</u>					Total
	1	2	3	4	5+	
United States	22	31	17	16	14	100
Federal Republic of Germany	29	28	18	15	10	100

Source: U.S.: Annual Housing Survey, 1978; Federal Republic of Germany: 1 percent Housing Sample, 1978.

large discrepancy is only somewhat mediated when we look at the number of rooms consumed per person in the two countries. They are 2.4 in the United States and 1.7 in the Federal Republic of Germany.

4. The relatively low cost of American homes contributes to the fact that the rate of homeownership differs by more than 20 percentage points between the two countries. In the United States, it oscillates around 65 percent, in West Germany around 43 percent. Because of cost differences together with tax advantages granted to U.S. homeowners,¹¹ the average price of a single-family U.S. home is about four times the average annual net income, compared with about nine times the average annual income in the Federal Republic of Germany.¹² Americans also find it easier than West Germans to buy a house because the equity-to-value ratio required by U.S. lenders is between 5 and 10 percentage points lower than in Germany. This is quite natural, in view of the much lower burden imposed on the American household for financing the loan for a lower-priced home.

5. All of the differences discussed up to now can be traced to the discrepancy in the cost of housing. However, there are other puzzling heterogenities between the two countries' housing sectors. For instance, the fraction of the dwelling unit development costs covered by the tenant's annual rental payments averages 8 percent in the United States compared with 2 percent in West Germany.¹³ As a result a housing

11. These are sketched in the next section, and discussed in more detail in Börsch-Supan (1984).

12. Net income equals gross income less income tax and social security payments. Net income is the standard way in which Germans report their incomes, while Americans routinely report gross incomes.

13. This point was raised by Eugen Dick.

developer must wait on the average six times longer before rental receipts equal the cost of building a unit. Only a small part of this big discrepancy can be explained by a comparative tax advantage granted to owners of rental housing in Germany, namely the exclusion of realized capital gains from taxation if reinvested in real property. Most of the difference must be due to difference either in the risk of renting out property,¹⁴ or in the returns from investment in alternative opportunities that may be higher in the United States than in West Germany. Explanations for this difference are well worth further investigation.

Some of the difference in the contribution of annual rental payments to housing costs appears to be reflected in the higher percentage of net income spent by U.S. renter households on gross rent. For urban households, it averages 36 percent,¹⁵ as compared to 24 percent in Germany. It should be kept in mind, however, that due to the much higher rate of homeownership in the United States, American renter households tend to belong to lower income strata than do their German counterparts.¹⁶

6. In the comparison of market structures and outcomes, let us now finally call attention to some differences in the way the markets operate. As already mentioned, the German market performs much more sluggishly. One indication of this sluggishness is that the

14. For instance, due to a higher turnover, to be discussed below, with the associated risk of vacancy.

15. Turner and Struyk (1984). Figures based on those for West and Northeast Census Regions.

16. A comparison of homeowners and renters by income quartiles for each country is given in Schneider, Stahl and Struyk (1984).

average period between building start and completion is higher in the Federal Republic of Germany than in the United States. Data are not directly comparable but figures from the 1982 U.S. Survey of New Construction reveal that it took on average 6.5 months to construct a building containing one to four units and 8.5 months for a building containing five or more units. By comparison, recent German estimates on the time elapsing between building permit and final inspection give a period of more than 18 months.¹⁷ While actual starts lag somewhat behind permits, there is little such lag--in fact, sometimes a lead--between completion and final inspection. In balance, these lags definitely do not amount to a period of ten or more months.

In addition, casual observation of both markets suggests that, owing to tighter building codes and zoning laws and to more rigid enforcement, obtaining a building permit takes much more time in the Federal Republic of Germany than in the United States. We maintain, in sum, that suppliers take longer to react to perceived excess demands for housing units in the German housing market than in the U.S. market.

7. The comparative sluggishness we observe on the supply side of German housing markets is even more pointed on the demand side. In particular, tenure times, and correspondingly mobility rates dramatically vary between the two housing markets. Owners' tenure times on average are substantially longer in West Germany, and the difference is even greater for renters. For instance, in 1978 only 7.4 percent of U.S. renter households had stayed in their unit for 24 years or more,

17. Estimate performed by the Bundesministerium fur Raumordnung, Bauwesen.

while an impressively high 30.3 percent had done so in West Germany (see table 5). Knowing the German housing market, one might want to attribute this extremely long tenure time largely to the existence of a considerable share of publicly subsidized housing units (28.4 percent in 1978). In these units, regulations determining eligibility and rental prices help keep eligible households for extended periods. These regulations are sketched in the next section.

The last two rows of table 5 reveal, however, that the difference in tenure times between renters of subsidized and unsubsidized units is not great. Thus the contribution of the rental supply subsidy policy to the inflation in German households' tenure times cannot be great, either.

A quantitatively more important factor in explaining the big difference in tenure times between the two countries' is the systematic variation in the demographic composition of households. For instance, the share of least mobile households -- namely the ones with head over 65 years old -- is 28.6 percent in the Federal Republic of Germany, larger than in the United States by 6.5 percentage points. Conversely, the proportion of the most mobile younger households, with head below 45 years old, is 40.7 percent in the Federal Republic of Germany or 7.3 percentage points smaller than in the United States.

However, neither cross-national demographic variations nor the existence of a large publicly subsidized housing stock in the Federal Republic of Germany fully account for the observed variations in tenure times and mobility rates. Indeed, if one controls for effects of governmental intervention by restricting attention to the unsubsidized

Table 5
YEAR HEAD OF HOUSEHOLD MOVED INTO UNIT

United States

	Up to 1949	1950-59	1960-69	1965-Mar 70	Apr 70-76	After 1977
All households	7.3	9.7	7.8	11.4	31.6	32.6
Owners	10.2	13.6	10.1	13.9	32.1	20.0
Renters	1.8	2.3	3.3	6.6	30.7	55.2

Federal Republic of Germany

	Up to 1964	1965-71	1972-75	After 1976
All households	33.9	22.7	22.1	21.3
Owners	40.3	22.1	20.0	17.8
All Renters	30.3	23.1	23.2	23.3
Renters in unsubsidized units only	30.0	22.0	23.7	24.3
Renters in subsidized units only	31.2	26.0	22.1	20.7

Sources: U.S.: Annual Housing Survey, 1978; Federal Republic of Germany: 1 percent Housing Sample, 1978.

housing sector, and compares the movements of similar households, one finds that mobility rates are still higher in the United States by several orders of magnitude.¹⁸ On average, American households are two and a half to three times more mobile than comparable West German households. The mobility differences are greatest for "standard" households who own their own home, have a household head between thirty and sixty-four years old, and have one or more children. U.S. households of this type are between six and seven times more mobile than West German ones.

What could be responsible for these tremendous differences? A primary factor outside the housing market should be seemingly big differences in the job mobility of Americans and West Germans. While not all job changes result in a change of residence, one expects that many do.

Another force more closely linked to the housing market could be different trends in household formation. For instance, the postwar baby boom occurred earlier in the United States than in West Germany; Americans born in the fifties and early sixties began to form households by the end of the seventies. Also divorce rates are higher in the United States by several orders of magnitude.

Factors related to the housing market itself also help explain the differences in mobility rates and length of tenure.¹⁹ As to the rental

18. The patterns are discussed in detail in Schneider, Stahl and Struyk (1984).

19. They in turn feed back on labor market mobility.

housing sector, a frequently made argument is that relatively extensive rent controls in West Germany keep rental rates low for those who remain in the same housing unit and would encourage long tenure. Furthermore, eviction controls would impose restrictions on landlords' power to dispose of their property, further reducing mobility. However, the results of surveys conducted eight years after the implementation of these controls indicate that a large majority (65 percent) of all landlords do not feel constrained by either one of them.²⁰

The comparative sluggishness in the West German market for owner occupied units may in part be induced by peculiarities in the system of housing finance. Of key importance in that are the Bausparkassen--thrift institutions collecting savings and providing loans earmarked to home building. Households wishing to borrow funds must sign a multi-year savings contract, with the size of the loan dependent on the amount of savings. The Bausparkassen accounted for over 40 percent of mortgage credit extended in 1980. Such credits are provided at low interest, in exchange for low interest paid on the future homebuyers' savings deposits. Since these favorable terms are typically lost with a change of properties, this system acts as a brake on mobility.

Yet another factor contributing to German owners' low mobility might be that most of the structures are owner built, and thus designed as well as erected with the owner's emotional and physical effort. This leads to a personal identification with the property that is not easily abandoned.

20. Institut für Wohnen und Umwelt, Infratest Wirtschaftsforschung (1979), Table 88.

However, the transactions in both the rental and owner-occupied markets are subject to costs that appear to be much higher in Germany than in the United States. A lower turnover in Germany implies, on average, fewer frictional vacancies, and therefore higher search costs.²¹ Furthermore, differences in the households' expectations as to the planned period of stay most certainly have a bearing on search efforts, and therefore costs. This implies that German households, if they move at all, willingly incur higher search costs.²² Finally, the actual costs of relocating are much higher in Germany than in the United States, because German dwelling units are typically exchanged without kitchen (and sometimes even bathroom) appliances and built-in furniture, such as closets.

There might be a final reason for the lower mobility rates within the German housing market, but one that is difficult to capture in quantitative terms. In the typical German urban area, both the quality of housing and the social composition of households vary within a neighborhood much more than in U.S. markets, and vary between neighborhoods much less. Furthermore, changes induced by changes in the housing stock or household

21. According to our estimate, average vacancy rates do not appear to be sharply divergent. They amount to 3.75 percent of the stock in the United States and 2.97 percent in the Federal Republic of Germany. Yet rough estimates of vacancy durations indicate that these are with 10.85 weeks in the Federal Republic of Germany which is 3.55 weeks longer than in the U.S. This says that, on average, a smaller share of units appears in the West German market and stays vacant over a longer period of time.

22. Indeed, one could well imagine two housing market equilibria with the same resident population, one involving long (planned) periods of stay, high search costs, and correspondingly low turnover, and another one involving short periods of stay, low search costs, and correspondingly low turnover rates.

turnover appear to occur at a much slower pace in West Germany than in the United States.

The larger quality variation within neighborhoods in Germany appears to be supply induced, and mostly due to the fact that new construction takes place at very small scale. The large share of custom building by owners tends to increase the quality diversity of the housing stock. Finally there is little, if any, exclusionary zoning.

A primary reason for a smaller variation in quality between neighborhoods appears to be the relative homogeneity in the socioeconomic composition of German households. For instance, ethnic variations are virtually nonexistent by American standards, which implies that ethnically induced neighborhood turnover hardly occurs.

At any rate, lower demand-induced changes in the aggregate do have an obvious reinforcing effect on individual mobility by raising the cost of searching and generating less neighborhood change.²³

Yet another reason for smaller inter-neighborhood quality variations in German urban housing markets appears to be supply induced. As mentioned before, German building standards are relatively high and are quite rigidly enforced, so that quality variations in the new housing stock are much smaller to begin with. Furthermore, the comparatively high durability of housing brings about a less rapid

23. Again, one could imagine two housing market equilibria with the same resident population, one involving "unsegregated" neighborhoods and consequently low neighborhood quality-induced mobility, and another one segregated neighborhoods with a high neighborhood quality-induced turnover.

change in the quality of that stock, and thus further reduces externally caused moves.

In summarizing the results obtained so far, it appears that there are very dramatic cross-national variations in housing market structures and outcomes. In particular, our assertion stated at the beginning of this paper that West German housing markets operate much more sluggishly seems quite confirmed by our analysis, both in the short and long runs. The question of whether these differences are primarily due to the divergent behavior of housing market actors or to policy differences can only be answered on the basis of a much more detailed analysis. At this point, we believe that sizable portions can be attributed to differences in behavior.²⁴

At any rate, such a large difference might invite a comparative evaluation of the performance of the two housing markets. Specifying performance turns out to be not as easy as one might expect at first glance. For instance, while the high cost of land and new housing in West Germany impede entry into the market for would-be owner occupants, they have a beneficial impact in reducing urban sprawl, and its concomitant in social costs.

The high rate of custom building for owners also contributes to this cost increase in West Germany. By contrast a cost-reducing large-scale development typically fosters the development of neighborhoods that are very homogeneous in the quality and structure of the housing stock. This in turn induces homogeneity in the socioeconomic

24. As far as the choice of mode of tenure is concerned, this point is confirmed by Börsch-Supan (1984).

composition of a particular neighborhood, which in the long run may turn out to be much more prone to dramatic neighborhood turnover at some point in time.

The high initial cost of housing in Germany also increases the degree to which new construction activities depend on capital market conditions. One thus expects more extreme cycles in new construction activities, with all the dead-weight losses associated with such cycles. It appears, however, that the peculiarities of the German housing finance system -- especially the fact that Bausparkassen interest rates are largely insulated from the market -- have had a strong dampening effect, so that in fact postwar construction cycles have been much less pointed than in the United States.

As a final example of the difficulties associated with cross-national evaluation of housing market performance, consider again the higher durability of German housing. It obviously slows the speed with which the housing stock, and indeed, large parts of the urban fabric, will be restructured in response to changing needs. However, it also reduces rapid neighborhood change, inasmuch as this is supply induced, with all the dead-weight losses generated from the many moves associated with such change. A similar effect is caused by the high transaction costs of moving, which by themselves constitute a dead-weight loss but impede neighborhood change as induced by a recurrent restructuring of its socioeconomic composition.

We might conclude from all this that there are many counteracting forces, so that a comparative evaluation of the two countries' market performance must rest on the orders of magnitude involved. These in

turn need to be investigated carefully, and should be the subject of future research.

Comparison of Housing Policies

This section gives a comparative description of the two nations' housing policies. It will be quite sketchy since such comparisons are provided elsewhere.²⁵ To begin, we provide some idea of the magnitude of the governmental financial engagement in the housing sector. We then discuss in turn, three areas of government involvement: direct housing subsidy programs, tax policies favoring housing, and government regulation of residential construction.

The entries in Table 6 give a quick overview of the financial involvement of the two governments in the housing sector. A glance indicates a much more expansive role for government in Germany. Over a quarter of all German households live in units directly assisted by the government, while only about 5 percent of U.S. households do. The German government also devotes a greater share of its total resources--especially through tax losses--to the housing sector.

We now turn to direct subsidies provided by German and American governments to promote improved housing. In both countries, government has intervened both by augmenting the purchasing power of households and by lowering the price of housing. The latter is accomplished by making below-market interest rates or other assistance available to developers

25. For example, McGuire (1981)

Table 6

GOVERNMENT FINANCIAL INVOLVEMENT IN THE
HOUSING SECTORS^a

Measure of Involvement	United States of Germany	Federal Republic
Housing subsidies as a percent of government expenditures ^b	1.0	1.1
Housing subsidies per capita	\$33.00	\$58.00
Subsidized households as a percent of all households ^c	5.1	25.2
Tax losses as percent of government budgets ^d	5.0	17.0
Tax losses per capita	\$143.00	\$120.00

a. "Government" is defined as the federal government in the United States and all levels in Federal Republic of Germany.

b. Housing subsidies include only direct expenditures by government (not tax advantages). Sources: U.S. - 1983 figures from U.S. Department of Housing and Urban Development and Farmers Home Administration budget documents; Federal Republic of Germany - 1981 figures from Statistical Yearbook of the FRG 1983.

c. Sources: U.S.: Data for 1983 U.S. Department of Housing and Urban Development and Current Population Survey; FRG: 1 percent sample, 1978.

d. Sources: U.S. figures for 1981; tax expenditures from R. Struyk et al., Federal Housing Policy at President Reagan's Mid-Term, Table 10, expenditures from federal budget documents; FRG - 1983 tax losses from Deutsches Institut fuer Wirtschaftsforschung, Gesamtwirtschaftliche and strukturelle Auswirkungen von Veranderungen der Struktur des öffentlichen Sektors, Berlin 1983.

of new housing, which is then rented to low- and moderate-income families at rents below those charged in the market for similar housing.

The approaches of the two governments differ, however, in important ways. The German social housing program (discussed below) was intended to improve the quality of the housing stock at a maximum rate, rather than to raise the housing of the lowest income people to some minimal level, which is the central thrust of housing assistance in the United States. Since German assistance is aimed at a much broader segment of the population than its American counterpart, this has meant that subsidies are smaller on a per-unit basis because tenants can contribute more of their own income for housing. This difference in purpose is reflected in the fact that 60 to 70 percent of households are eligible for assistance in West Germany, compared with about 25 percent of households in the United States.

Let us look first at subsidies intended to increase housing supply. It will be recalled that a large portion (28 percent) of the German rental housing stock has been constructed with such subsidies. Under the "social housing" scheme, landlords receive interest subsidies to finance new units and in exchange commit themselves to admitting households with incomes below a ceiling and to charging a cost-based rent.²⁶ The United States, by contrast, has employed a number of subsidy techniques over the years. In the late 1960s and early 1970s, a structure like that just described was the main vehicle for supporting

26. It is worth noting that in recent years the Social Housing Program was oriented more toward lower income households. Also, up to 1980 considerable subsidies were granted to lower income savers to assist them in the purchase of an owner occupied unit.

new housing for the poor. This approach turned out to be unsatisfactory when lower income occupants could not pay rents high enough to cover operating costs, which in turn drove subsidized projects into financial trouble. In 1974 an alternative approach was created, the Section 8 new construction program. This program guaranteed developers rents high enough to cover capital and operating expenses over a thirty-year period. Tenants contribute a fixed share of their income to rents, with subsidy payments filling the gap between these payments and total cost.²⁷ Finally, the United States has developed low-income housing since 1934 under the public housing program. Here development is carried out by local public housing authorities with three types of subsidies from the federal government: aid in development of the project, assistance with operating expenses, and special aid for modernizing older projects.

West Germany also subsidizes the upgrading of existing rental units, with particular attention to heating, appliances, and energy efficiency. Interest subsidies are granted under this program, subject to the condition that the owner can collect no more than 11 percent of the upgrading expenditures per year through rent increases. Similar programs have been funded at the federal level in the United States. The current programs are the Rental Rehabilitation Program and the Section 8 Moderate Rehabilitation Program. Both are designed to work in

27. Because of its very high cost per unit, this program was discontinued in 1982. Hence, the public housing program is the only new construction program presently operating in the United States. For more on recent developments, see Struyk, Mayer and Tuccillo (1983).

tandem with rent supplement payments to increase the supply of acceptable-quality housing available to low-income renters. These programs are dwarfed, however, by the amount of rehabilitation funded by local governments using federal funds provided under the Community Development Block Grant Program.²⁸

As suggested earlier, both United States and Germany have large housing allowance programs, which are becoming increasingly favored as a way to provide housing assistance. Germany offers allowances not only to renters but also to owner-occupier households. In either case, households are eligible if they have incomes below a certain amount determined by household size, a burden of housing expenditures in excess of a given share of income, and housing consumption below a certain quality limit. At the end of 1982, some 6.4 percent of all West German households received such allowances. Of all recipients, only 6.9 percent were owner occupants.

The objective of the German housing allowance legislation is quite different from that of the American allowance programs -- the Section 8 existing housing program and the experimental housing voucher program. Rather than assisting households in renting higher quality units, the German program is primarily intended to help preserve its recipients' current housing consumption pattern in the face of rent increases or income losses. The latter are suffered most frequently by retired people, for instance, upon the death of the former primary earner in the household. Indeed, more than 60 percent of the recipient households are

28. See U.S. Department of Housing and Urban Development (1984).

headed by persons age sixty-five or older.²⁹ Increases in rent that are taken up by housing allowances are suffered mostly by renters of social housing units. The increases are due to a reduction in interest subsidies over time, which is passed on to renters through the cost-based rent setting scheme. This type of policy orientation should be easily appreciated, in light of the housing market operations in Germany described earlier.

Housing allowances in the United States differ in two important ways from those in West Germany. First, unlike West Germany, the United States does not make them available on an entitlement basis -- that is, funds are insufficient to permit all households who are eligible and want to participate to do so. Thus, about 15 percent of the eligible renters (who are not receiving housing assistance in another program) receive such payments; this is about 1 percent of all households. Second, a key part of the program in the United States is that the dwelling unit in which the allowance recipient will live must pass a physical inspection to insure that it meets minimum quality standards. This insures substantial upgrading in the housing conditions of program beneficiaries but also constitutes a serious hurdle that prevents some eligible households from becoming program participants.

Let us now turn to a brief discussion of indirect subsidies through tax writeoffs. The tax instruments used by both governments are comparable, but the two countries give different emphasis to aiding rental versus owner-occupied housing. The German system favors the

29. Recently, there has also been some increase in the share of households with an unemployed primary earner.

rental housing sector, while the American one favors the owner-occupied sector.

Consider the latter sector first.³⁰ In contrast to the United States, no tax deductions of mortgage interest are allowed in West Germany. While there are depreciation allowances in Germany for owner occupied homes, they apply only once in a lifetime to one person, and either (in an accelerated form) with a cap on time and value, or only (in a degressive form) to new structures. Furthermore, imputed rents are in the U.S. fully excluded from taxable income, whereas deductibility is only possible in Germany when the accelerated depreciation schedule is used. This relatively disadvantageous tax treatment in Germany is only partly alleviated by the fact that Germany has only a negligible tax on land consumption, whereas the U.S. property tax is substantial even after deduction from the personal income tax.

Thus, besides taking away less of the already higher burden of homeownership from the German household, the tax treatment handicaps mobility between owner occupied units; and, at least up to the mid-seventies,³¹ it disfavored the acquisition of used homes.

By contrast, the tax treatment given to owners of rental property is more favorable in Germany than in the U.S. Most importantly, realized capital gains remain untaxed as long as they are reinvested in real property. It is worth noting, however, that changes in tax provisions

30. In our description of the West German policy, we emphasize the tax treatment of single-family homes. Up to 1983, there was a loophole to this. In adding an apartment unit to such a home -- even one "rented" to a family member -- one could enjoy the more favorable tax treatment given to owners of rental property. See Börsch-Supan (1984).

31. Up to that time, even the accelerated depreciation schedule was only applicable to new structures.

in the United States in 1981 (as part of the Economic Recovery Tax Act) substantially narrowed the differences in the tax treatment of owner-occupied and rental properties.

The last item to be covered in our comparative description of housing policies concerns governmental regulatory activities. Two major types of regulation affect the supply side of the housing market, namely zoning and building codes. In Germany, both, zoning rules and building codes are set by the federal government and are used and enforced by the local ones. By contrast, in the United States even the setting of rules is left to the local communities. So a comparison of specifics is not possible.

By and large, it appears that building codes much more rigidly constrain suppliers' construction opportunities and are more tightly enforced in Germany than in the United States. For example, the standards applying to the insulation of a building are extremely high in West Germany. The same applies to fire hazard standards, even though virtually all houses are built of brick. In fact, once it comes to the exact prescription of the minimum width of interior stairs, or the height thereof, one might ask whether regulation has not gone too far. One effect of such rigid regulation may be that it retards the adoption of more efficient materials and building practices. This is not to say that adoption of innovation is necessarily faster in the United States, where fragmentation of responsibility at the local level clearly slows innovations.

It finally should be emphasized that German building standards require that tasks immediately affecting the unit's safety, such as

electric installation or installation of the heating system, be done under the auspices of a master craftsman, which further contributes to the high cost of construction.³²

The zoning rules customarily applied in U.S. communities are quite similar to the ones imposed by federal law in West Germany. On average, German zoning ordinances, if applied to residential quarters, seem to prescribe a much higher ratio of building floorspace to ground area than American ones do. Whether this tendency just anticipates market reactions to higher land costs, or by contrast induces land prices to rise, is an unsettled issue and must be left for further analysis.

There is a last important regulatory activity that regulates housing market interactions, namely rent and eviction control. Since 1971 such controls have been applied by federal law to the entire German housing market, while in the United States they are set locally, if at all.

The German law on the Protection of Tenants (Wohnraumkündigungsschutzgesetz) contains two clauses, a rent control and an eviction clause. The first one effectively implies an indexation of the rent under maintained or renewed rental contracts. However, rents can be set freely with a change of tenants. In the former case, rents can only be increased either upon cost increases (possibly from upgrading the unit), or within bounds defined by the average rent of comparable units. If the latter bound is effective, rents for sitting tenants will react with time lags to changes in spot market rents.

³². This regulation has also a cost increasing effect when it comes to upgrading dwelling units.

Under the eviction clause, a tenant can be ousted only if he breaks his contract; or if the landlord himself or a close relative wants to move into the unit; or if, the landlord is, by the tenant's stay, "substantially inhibited in the appropriate economic usage of the lot". This last provision would imply, for instance, conversion of the unit to another use.

Space limits do not permit an account of the great variation in local rent and eviction control clauses that exist across American cities. In some, such clauses do not exist; in others, they are much tighter than the ones enacted throughout West Germany. Overall, however, they are certainly less pervasive factors in the housing market in the U.S.

Based on this review of housing policy and programs in the two countries, it seems fair to say that while the housing policy instruments used are quite similar in principle, the objectives for which they are employed are tuned to the different needs of each country. This is yet another consideration to be kept in mind when it comes to a cross-national comparative analysis.

Summary

Our analysis has brought out sharp differences in the housing consumption patterns and housing market performance between the United States and the Federal Republic. While we have suggested some explanations for these differences, we are left with many questions. In addressing these questions, the discrimination between policy-induced differences and those induced by differences in the behavior of private agents appears to us to be of key importance. If the observed differences are largely induced by the latter, then obviously the very

same housing policies may produce very different impacts--both quantitatively, and possibly qualitatively--in the two housing markets.

As an example, a policy may have filtering effects that work completely differently in the German housing market than in an American one, if the differences we have observed have been caused by variations in private agents' behavior rather than the policy itself. Clearly, however, how the indirect effects work through the market is of central importance, since many policies are justified by these indirect impacts.

The overall conclusion of all this is that Americans and Germans certainly can learn a great deal from each other about how housing markets operate and the relative efficacy of alternative government actions. On the other hand, we would suggest considerable care in making such transfers, since there is strong evidence that households in the two countries respond in different ways to similar signals: There are strong, deeply ingrained preferences and life-styles that markedly effect their responses. It is our view that each country would understand more about the functioning of its own housing market if more explicitly comparative analyses were undertaken.

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