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TRIP REPORT

ALTERNATIVE HOUSING ALLOWANCE PROGRAMS FOR THREE MUNICIPALITIES IN POLAND: ZGIERZ, PRAGA AND CENTRAL WARSAW

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EXECUTIVE SUMMARY

The rental housing sector in Poland is similar to those in other countries in Eastern Europe with fixed low rents and deferred maintenance of municipal housing stock. In 1990, responsibility for housing maintenance was transferred from the federal government to municipal governments. However, the basic tariffs for maintenance continue to be fixed at the ministry level. In light of the reduction of central budget subsidies, municipalities have put pressure on the Ministry of Housing, Construction and Spatial Economy to raise rents and reduce the subsidies to the sector covered by local budgets. The Draft Decree on Tenancy, Tenant Protection, and Housing Allowances proposes to raise rents to fully cover the costs of providing maintenance in five years, with a cap on the speed at which rents can be raised. Yet, due to the recent parliamentary elections on September 19, 1993 little progress has been made towards implementing rent increases in municipal housing. The Ministry of Housing has, however, drafted a rent increase-housing allowance program which is currently before the Council of Ministers.

The purpose of this trip report is to summarize the evaluation of this rent-increase housing allowance proposal and to present a comparison of this proposal with other variants of the program. This report reviews the parameters of the housing allowance model and explains the mechanics of the model. Total program costs, the distribution of subsidies, and participation rates among different income quartiles in three municipalities are estimated under several variants of the program.

TRIP REPORT ON ALTERNATIVE RENT INCREASE-HOUSING ALLOWANCE PROGRAMS FOR THREE MUNICIPALITIES IN POLAND: ZGIERZ, PRAGA AND CENTRAL WARSAW

The rental housing sector in Poland is similar to those in other countries in Eastern Europe with fixed low rents and deferred maintenance of municipal housing stock. In 1990, responsibility for housing maintenance was transferred from the federal government to municipal governments. However, the basic tariffs for maintenance continue to be fixed at the ministry level. In light of the reduction of central budget subsidies, municipalities have put pressure on the Ministry of Housing, Construction and Spatial Economy to raise rents and reduce the subsidies to the sector covered by local budgets. The Draft Decree on Tenancy, Tenant Protection, and Housing Allowances proposes to raise rents to fully cover the costs of providing maintenance in five years, with a cap on the speed at which rents can be raised. Yet, due to the recent parliamentary elections on September 19, 1993 little progress has been made towards implementing rent increases in municipal housing.

The Ministry of Housing has prepared a rent increase-housing allowance program which is currently before the Council of Ministers. The general consensus, however, is that the Council will reject the current housing allowance program. The proposal outlines a very specific program that would likely be very expensive for municipalities with low levels of income and high housing costs. However, if passed it is likely that municipalities would only provide allowances to tenants in municipal stock due to the costs involved. If the program is later passed by Parliament there may be central funds for expansion of the program to other types of housing stock.

One of the main features of the housing sector in Poland is the significant percentage of cooperative units. Coops account for up to 40 percent of housing stock in some cities. Some are pre-war one-building coops whereas others include several buildings. There was a resurgence of cooperative building in the 1960s when it became evident that the government was not going to provide housing for all. Currently, there are two kinds of cooperatives: tenant cooperatives and owner cooperatives. Tenant households receive a 30 percent "premium" off of their loan value whereas owners pay the full cost. Owners were able to receive a discount of 20 percent if they paid cash. Other than in financing, the major distinction is that owners have the right to sell or will their flat, tenants do not.

By the mid-1980s a private owner-cooperative sector was becoming well established. Local governments allocated free land to cooperatives and provided some subsidies for construction. Many of these units were built as cooperatives but, as separate titles were issued for each unit, were more similar to condominiums. As of 1992 individual coop owners received loans rather than the cooperative as a whole. Each household receives a loan of up to 36 times the household income, with 25% down payment and payments of 25% income at 38.5% interest rate.

By contrast there is very little building for private rentals because of the weak

eviction law and lengthy court procedures involved. A delinquent tenant must be evicted to an alternative unit.

In 1992, a "primitive" housing allowance was introduced. If a household paid more than 7% of income, the social assistance agencies provided allowances which were centrally funded. However, this program was discontinued the following year. Of households surveyed for this study, only 8.6 percent received a housing allowance under this program. All recipients had incomes lower than the median income of those surveyed.

The rest of this paper discusses a new housing allowance program which would be implemented concurrently with rent increases in municipal housing. The paper defines the model's parameters and explains the mechanics of the model. Using several variants of the rent increase-housing allowance model, program costs and participation in three municipalities are estimated.

DATA AND BACKGROUND

The data employed in this study were collected from three municipalities: Zgierz, Praga and Central Warsaw. For Zgierz two variants of eligible populations are included in the study: only municipal renters, and municipal and cooperative tenants. The samples were drawn from those municipal units not privatized and all cooperative units in Zgierz only. These data were collected via questionnaires mailed to randomly selected households in the three municipalities: 150 households in cooperative units and 150 in communal units in Zgierz; and 450 to households in communal units in both Central Warsaw and in Praga. Of those sent to Zgierz, 31 in cooperative units and 36 in communal units responded. In Central Warsaw and Praga 120 and 94 responded, respectively.

The data were weighted to simulate the actual number of units of the housing types in each of the municipalities. There are 14,173 cooperative units and 4831 communal units in Zgierz, 28,336 communal units in Central Warsaw, and 21,745 communal units in Praga. Since income was reported categorically, a random number within the reported income category was generated for each household's income. We suspect that the result was an under-reporting of income for most households.

Table 1 provides figures of total population and housing stock distribution for the three municipalities. The variation in the distributions of housing stock provide for useful comparisons of the effects of the rent increase-housing allowance models.

TABLE 1

HOUSING STOCK DISTRIBUTION BY MUNICIPALITY

	Central Warsaw	Warsaw Praga	Zgierz
Total population (thousands)	154.9	263.5	59.2
Total number of households (thousands)	75.9	99.6	21.5
Total number of units (thousands)	67.0	91.5	20.6
Distribution of units			
Municipal	63.4	31.7	26.0
Cooperative	29.2	38.6	38.8
Enterprise	7.2	9.2	15.2
Privately-owned	0.2	20.5	20.0

Table 2 presents the numbers of privatized and non privatized municipal units.

TABLE 2

MUNICIPAL UNITS: PRIVATIZED AND NOT PRIVATIZED

	Central Warsaw	Praga Warsaw	Zgierz
Total municipal units	42,974	29,042	5,089
privatized	14,138	7,294	258
not privatized	28,338	21,748	4,831

Municipal rental units are maintained by the state management firm *Przedsiebiorstwa Gospodarki Mieszkaniowej* (PGM). Currently, tariffs for maintenance in municipal rentals cover only 35% of full cost, on average. The basic tariffs are presented in Table 3. Cross subsidies from commercial space cover the deficit with additional central budget subsidies for services and emergency and capital repairs. Households in cooperative units usually pay closer to full operating costs as many buildings are maintained by private firms.

TABLE 3 **BASIC TARIFFS FOR MAINTENANCE IN MUNICIPAL UNITS**	
Basic tariff per m^2	1200 zl/m^2
— if toilet add 30% of basic tariff	1560 zl/m^2
— if bath add 30% of basic tariff	2028 zl/m^2
— if central heating add 30% of basic tariff	2636 zl/m^2
— if piped gas add 30% of basic tariff	2640 zl/m^2

Utility charges, having increased regularly, already meet full cost. Hot water tariffs were 50,400 zloty per person prior to July 1, increasing to 56,300 zloty per person effective July 1, 1993. Central heating tariffs were 7,070 zloty per square meter prior to July 1, and increased to 7,920 zloty per square meter effective July 1, 1,993. Cold water charges vary according to the amenities in the unit, ranging from 3,670 zloty per person to 16,700 zloty per person in Praga and Warsaw Central and 2,600 to 18,200 zloty per person in Zgierz.

THE RENT INCREASE-HOUSING ALLOWANCE PROGRAM

The principal goals of housing policy reforms are to reduce general subsidies to the housing sector, improve the maintenance of public housing, and expand the private rental sector. These objectives can be met through increasing rents on municipal stock and introducing a housing allowance program that will protect low-income households from excessive rent increases.

Rent increases will reduce or eliminate general subsidies to the sector and the allowance program will target assistance to those most in need, the lowest income households. The increased revenue will provide additional funds for current and deferred maintenance of the units. Because the allowance program will associate subsidies with the household rather than a specific housing unit, the family will be able to choose their own housing from both the public and private sectors. The private sector will expand to meet this increased demand and competition will lead to improved housing conditions in the housing sector as a whole.

In the short-run, the housing allowance program will be fully funded by the increased rent revenue. Net revenue after allowances will enable the municipality to reduce the subsidy to the public rental sector and improve maintenance. However, increased revenue will be insufficient to cover both the allowance program and the costs of maintenance. To eliminate maintenance subsidies altogether additional

sources of funds will be needed to finance the allowance program. This issue will need to be addressed by the municipalities and the central government.

Rent Increases

One of the most important program objective is to raise rents and reduce the level of subsidy and deferred maintenance in municipal housing. The basic idea is cost recovery. Raising rents will increase revenue available to municipalities for maintenance: tenant payments are currently covering only 35% of the full cost of maintenance. Many families are capable of paying more; however, other households may not have the means to make higher payments. Under the rent increase-housing allowance program only these low income families will receive assistance in meeting the increased rents.

In addition to decreasing the subsidy to housing, raising rents to market levels improves both the public and private sector rental markets. "Market rents" mean that rents will no longer be mandated by the government but negotiated between the management company and potential tenants. Tenants will pay what the unit is worth to them and the management company will accept what is required to maintain and provide services for the flat.

The public sector rental units benefit from improved maintenance. And, the private rental sector improves because of competition in the rental market spurred by the improvements in the public sector and the increased demand for private rentals. Housing allowances for low income households increase affordability and improve access to private rentals. As households face market rents in public units, they may chose to move to more suitable private units. Furthermore, if the rent increase is accompanied by a housing allowance for which private renters are also eligible, private landlords can be reasonably certain that the tenant will be able to meet the rental payment.

A first step in moving towards market rents in communal and cooperative rental housing would be to raise rents to the full cost of providing maintenance and utilities e.g. hot and cold water, gas, and central heating. Rents should not be centrally set as prices and demand forces vary across cities. Municipalities must be given the latitude to establish rents appropriate to their housing stock and the required maintenance. For example, the three municipalities which we have studied require different rent increases to meet their full costs of maintenance: Praga would have to increase rents 3.18 times; Zgierz would have to increase 3.68 times; and, Central Warsaw would increase rents 2.62 times. Guidelines as to how to establish rents, however, may be issued by the Ministry.

Market rents, however, are not solely determined by the costs of maintenance but reflect the demand for given housing characteristics. In the transition to market

rents, the rent policy can reflect housing preferences and adjust rents accordingly. In Solnok, Hungary where a program of rent increases and housing allowances has been implemented, the new rental policy has also introduced rent differentiation. Those in better housing pay more. A schedule of basic rents reflects the demand for and desirability of various locations. For example, the rent for a flat in the center is more than for a similar flat in the suburbs. In addition, they have established rent adjustments for various housing characteristics. The rent for an apartment on a busy street is reduced by 5%; the rent increase for an apartment facing south is 5%. This differentiation reflects market demand and provides a transition to market rents.

Housing Allowances

A housing allowance is a subsidy for maintenance and utility fees paid to a household or on behalf of a household to landlords and providers of utilities. A housing allowance protects a household for whom meeting the charges for rent and utilities would be a financial hardship. The allowance pays the difference between the standard cost of adequate housing in the city for a household of that size and the household's expected contribution as determined by policy-makers. The household contribution is the percentage of income a family is expected to be able to pay for housing. Thus, the key feature of the housing allowance is that the subsidy depends on the household's income: the lower the household's income, the larger that household's subsidy and the smaller the amount of the full costs of housing the family must pay out of its pocket. As household income increases the subsidy decreases, thereby the program essentially sets its own income limits according to the parameters.

The allowance program should be designed in such a way to balance the protection of low-income households with the municipality's ability to fund the program. The two program parameters, the normative rent and the household contribution, determine the costs of the program and the extent of protection for the poor. Conditions for eligibility must be established to determine which populations will be included. Other issues to be addressed are an arrears policy to assist households with unpaid rents and utilities charges and relocation assistance if a family chooses to move to a smaller unit because of the increased rents.

Program parameters

The amount of the allowance is determined by the household size and income and the two program parameters. The model is a fill-the-gap formula in which the allowance is the difference between what a household can reasonably pay and an a standard rent, the maximum social rent (*MSR*), according to the following formula.

Housing allowance = maximum social rent - household contribution

The household contribution is a percentage of household income. Household "income" must be defined and could include all or a portion of the household's assets.

Standard rents (MSR). Why base a housing allowance on standard rents as opposed to actual expenditure? Because standardizing rents:

- facilitates long-term budgeting;
- simplifies administration and implementation;
- creates less possibility of falsification;
- improves the equity of the program.

The standard, or maximum social rent (*MSR*), should be the rent needed to pay for a flat of appropriate size for the household in a municipality. *MSR* is determined according to a social norm of housing based on the size or characteristics of a household. A space allowance, or number of square meters of housing, is determined for each household according to its size. The space allowance is then multiplied by the maintenance fees and communal services charges per square meter of housing to determine the cost of an adequate unit.

$$MSR = space\ allowance \times cost/m^2$$

The space allowances may be established according to family composition, taking into account age, sex, and family relationships of household members. This space allowance should depend on the housing stock in the municipality as the sizes of units may vary among municipalities. An example of a space allowance schedule is:

1 person: 35 m^2	4 persons: 55 m^2
2 persons: 40 m^2	5 persons: 65 m^2
3 persons: 45 m^2	6 and more persons: 70 m^2

The cost per square meter for maintenance and services can be determined in several ways. It may be based on the average cost of an adequate flat in a given municipality, on a minimum housing cost of an adequate, or may be based on several standards depending on combinations of amenities and utilities. An "adequate" unit may be defined by each municipality according to its housing stock. These rents will vary once municipalities are permitted to determine rents for their own stock.

Program cost and equity are the main concerns. Basing allowances on actual expenditure, as has been proposed by some, would be both costly and inequitable.

A family living in a better equipped and more expensive apartment would receive a higher allowance merely because of their higher rent. Using actual expenditures would also be administratively more difficult both in terms of implementation and budgeting for the program. Thus, municipalities may embrace the concept of an allowance based on standardized rents more enthusiastically than one based on actual expenditures.

Differentiating the standard rent based on amenities and type of utilities is one alternative to using either an overall average and actual expenditure. For example, it may be determined that an adequate unit is one that has all amenities, and the basic tariff or the average market rent for such units in that city would be used in calculating *MSR*. Utility charges, however, may differ according to those in the actual unit. Yet, this differentiation provides some households with higher allowances than others solely on past allocation of units. To partially compensate for this inequity a minimum utility charge may be established.

While the definition of the standard, or *MSR*, may be determined with further analysis and discussion for each municipality, using a standard as opposed to the actual expenditures should be explicitly stated in any proposal or legislation.

Standard % of income (t). A household's allowance payment is the difference between the *MSR* and the percentage of income a household can reasonably afford to spend on housing, denoted *t*, as shown in the following formula:

$$\textit{Housing allowance} = \textit{MSR} - (t \times \textit{income})$$

The household contribution is exactly *t* if their unit is exactly equal to their *MSR*. Since few families live in units that are exactly the same size as the social norm, families rarely will pay exactly the percentage of income chosen for *t*. If a household is "over-housed", i.e. living in a larger flat than its space allowance, their housing payment will be higher than *t*. An "underhoused" household will pay less. The actual household payment is the difference of their actual housing expenses minus the allowance.

$$\textit{payment} = \textit{housing expenses} - \textit{allowance}$$

According to the formula, an "underhoused" family with a low income could receive more than their monthly housing expenses.

The housing allowance model uses a standard percentage of income for all households. This standardization reduces the possibility of falsification of household size and creates a more equitable program. The size of the household is taken into consideration in the calculation of the *MSR*: larger households will get a bigger allowance because they are assigned a higher space standard.

One proposal includes differentiating t according to household size: smaller households would pay a higher percentage of income on housing. Yet, larger families may also have more earners and higher incomes. Requiring these families to contribute a smaller share would undermine the equity of the program.

Income eligibility

Income is the household's monthly income from all sources, including income from income generating assets. Allowance payments equal the *MSR* when the household has no income and allowances decline as income rises. This phasing out of allowances is an improvement over a system of housing allowances in which a household receives all or none of the subsidy depending on whether their income is above or below the income cutoff. Furthermore, the sliding scale of allowances is much more equitable than offering municipal housing to all household with no consideration of their income.

The maximum income for eligibility is determined by *MSR* and t within the allowance formula: Allowance = 0 when income = MSR/t. The higher the value of t the lower the income limit for eligibility. Larger families will have a higher income limit: a higher *MSR* increases the maximum income for eligibility.

However, other income limits have been proposed: 1 person households must have income no higher than 1.5 times the lowest pension and other households must have income no higher than the lowest pension per person. Under this constraint, those households just above the limit will be made worse off than those just below, perhaps with only a few zloty less. A household even slightly above the limit would pay the full cost of their housing and would have a net income of much less than those eligible.

The following table summarizes the formulas for calculating housing allowance payments.

TABLE 4

HOUSING ALLOWANCE FORMULAS

Actual gross rent	=	full cost of maintenance and utilities or market rent (a)
MSR	=	(social norm, m^2) x (charge per square meter for maintenance and utilities) + (per person utility charges)
Housing allowance	=	*MSR* - (*t* x household income)
Net payment	=	Actual gross rent - housing allowance
Maximum income for eligibility	=	*MSR*/*t*

a. Actual gross rent refers to a household's actual housing expenses before any housing allowance. These expenses may be full costs to the PGM or, eventually, the market rent negotiated between the tenant and the management company.

Table 5 demonstrates the calculation of housing allowances and rent payments for four sample cases. Noting that the *MSR* is set for the size unit that the household is considered to need, not for the size of units in which the family is actually living, these cases illustrate how actual rent payments may differ from *t*, tenant contribution as a percentage of income.

TABLE 5

OVER-HOUSED AND UNDER-HOUSED FAMILIES

Assume a household of 2 persons with an income (Y) of 3.000.000 zl/month. The family is eligible for 40 square meters and has an MSR = 40 m^2 x (2640 zl/m^2 + 7070 zl/m^2) + (50400 zl/person + 16700 zl/person) x 2 persons = 522,600. In each case the household lives in a unit with all amenities and t=.10.

Case 1: If the family lives in a unit that has exactly that number of square meters, the net payment paid by the family will be equal to the percentage of income established by "t."
Family's actual unit = 40 m^2
MSR = 522,600 zl
Actual gross rent = 40 m^2 x (2640 zl/m^2 +7070 zl/m^2) + (50400 zl/per + 16700 zl/per) x 2 persons = 522,600
Housing allowance = 522,600 - .10(Y) = 222,600
Net payment = 522,600 - 222,600 = 300,000
Net payment/Y = 300,000/3,000,000 = .10

Case 2: If the family lives in a larger unit than the social norm, it will pay more than "t".
Family's actual unit = 60 m^2
MSR = 522,600 zl
Actual gross rent = 60 x(2640 zl/m^2 +7070 zl/m^2) + (50400 zl/person + 16700zl/person) x 2 persons = 716,800
Housing allowance = 522,600 - .10(Y) = 222,600
Net rent = 716,800 - 222,600 = 494,400
Net rent/Y = 494,400/3,000,000 = .16

Case 3: If the family lives in a unit smaller than the social norm, it will pay less than "t."
Family's actual unit = 30 m^2
MSR = 522,600 zl
Actual gross rent = 30 x(2640 zl/m^2 +7070 zl/m^2) + (50400zl/per + 16700zl/per) x 2 persons = 424,600
Housing allowance = 522,600 - .10(Y) = 222,600
Net rent = 424,600 - 222,600 = 202,200
Net rent/Y = 202,200/3,000,000 = .07

Case 4: For a severely underhoused family, the housing allowance can be larger than the family's gross rent, in which case the family will receive a positive cash payment.
Family's actual unit = 25 m^2
MSR = 522,600 zl
Actual gross rent = 25 x(2640 zl/m^2 +7070 zl/m^2) + (50400zl/per + 16700 zl/per) x 2 persons = 173,870
Housing allowance = 522,600 - .10(Y) = 222,600
Net rent = 207,570 - 222,600 = -15,030

The family pays no net rent and, instead, could receive a payment of 15,330 zl per month. Payment of cash allowances is a policy decision to be made at the local level. Cash payments may be either paid to the household in full, capped at some limit chosen by policy-makers or eliminated, thus setting the allowance cap equal to a household's housing expenses.

Eligibility

What population should be covered by a housing allowance program? Housing allowances can apply to families living in any type of housing and to owners as well as renters. For example, if only renters are eligible for allowances for rent and utilities, a utilities allowance could be available to owners both in cooperative and private units. Local governments must be permitted to make decisions about what forms of tenure to include in a housing allowance program based on their housing stock. However, to expand and improve the private rental sector, housing allowances must be made available to all renters. The types of housing to be considered for coverage under a housing allowance program include:

communal units (municipal stock)
cooperative tenants
private rental tenants
cooperative owners
owner-occupiers

PRELIMINARY RESULTS FOR THREE MUNICIPALITIES

The rent increase-housing allowance programs were simulated for three municipalities. These simulations demonstrate how results can differ according to the housing costs and income distributions in different municipalities.

According to the survey the average household pays 18 percent of income for housing expenditures. However, families in the lowest income quartile pay 29 percent while those in the highest income quartile pay an average of 11 percent of income. Thus, for low income families housing expenses are already a greater financial burden. The current housing expenses to income ratios, as shown in Table 6, vary across municipalities, with those in cooperative apartments paying considerably more than those in communal flats. Among communal tenants the in three municipalities, households in Praga pay a larger share of their income for housing expenses.

TABLE 6
CURRENT HOUSING EXPENSES* TO INCOME RATIOS BY INCOME QUARTILES BY MUNICIPALITY AND STOCK

	Zgierz coops	Zgierz communal	Center communal	Praga communal
All households	.254	.140	.178	.182
Lowest quartile	.443	.192	.278	.293
2nd quartile	.230	.196	.183	.210
3rd quartile	.148	.074	.150	.134
Highest quartile	.169	.087	.111	.104

* Housing expenses include fees for maintenance and utilities.

These figures should have some bearing on the value set for t as they illustrate that tenants may be able to pay more than the originally proposal of 10 percent of income. The variance across municipalities also indicates that t should not be centrally mandated but should be left to the local governments to determine according to the income distribution and housing costs in their locality.

To illustrate the effects of alternative standard rents (*MSRs*) and values of t, we simulated several variants of rent increase-housing allowance programs. The top panel of each table reports the program costs and net revenue increases from raising rents for each municipality and two options for Zgierz, covering both cooperatives and municipal units and only municipal units. The bottom panel reports results of rent increase-housing allowance programs for households in Zgierz cooperatives, and Zgierz, Warsaw Central and Praga municipal housing tenants.

In Tables 7 and 8, the simulations employ four standards for *MSR*: all amenities including heat, gas, and hot water; all amenities including heat and gas but no hot water; all amenities including hot water and gas but no heat; and a minimum of a sink, toilet and bath. Those households without central heating were given an allowance of 3870 zloty for coal. Cold water charges vary according to the amenities, but all households are given a minimum allowance as if there were a flush toilet, sink and bath in the unit. In Table 7, t varies according to household size and two variants were simulated, with and without an income cut-off based on the lowest pension. In the variants of Table 8, t is the same for all households and the income limit is MSR/t, decreasing the eligible income as t rises.

Table 7 illustrates well how the results of the same model vary across municipalities and how costly including cooperatives in the program would be. Cooperatives are essentially owners in that rents are paid to private maintenance companies and the municipality receives no revenue from these units. This model, even with income limits, requires more funds than the rent increase provides in all but one municipality. Only in Warsaw Central does the revenue increase cover program costs. In all other cases, participation rates are high and program costs are greater than the revenue increase.

Table 8 shows the effects of increasing a standard tenant contribution, *t*. For a given *MSR*, *t* controls the costs and revenues of the rent increase-housing allowance program. Increasing *t* decreases the maximum eligible income, i.e. lowering the income limit for eligibility. A higher *t* increases the revenue to the city by increasing the tenant contribution and reducing participation. Under this scenario, when *t*=20%, participation is between 45 and 61 percent. Thus, instead of setting an external income limit, an increased *t* can achieve the same objectives more equitably. The program costs are covered by revenue increases in all municipalities when *t*=20%, except when cooperatives are included. A higher value for *t* does, however, reduce the cost of including cooperatives.

One interesting comparison between Tables 7 and 8 is the results of the variant without external income limits in Table 7 and variants with *t*=10% in Table 8. The difference between these two models is the differentiation of *t* by household size in Table 7. The differences between the two results are minimal: costs and participation are virtually the same. The justification for using different percentages of income according to family size is, thus, not program cost. As larger families are allowed greater space and a higher *MSR*, the reasoning behind this proposal to differentiate *t* should be re-evaluated.

Tables 9 and 10 employ average costs as the standard for *MSR*. Simulations in Table 9 use an average cost per square meter and those in Table 10 differentiate costs per square meter and costs per person using an average for both. Tables 9 and 10 show very similar results. These variants are less costly for the Zgierz program excluding cooperatives. In all other municipalities, the costs of these programs are higher than in the other variants. Although the average allowance payment is slightly lower, participation is higher.

CONCLUSIONS

The first step towards a rent increase-housing allowance program is to pass appropriate legislation enabling municipalities to raise rents. Most importantly, specific program parameters should not be centrally mandated. The variation shown in the simulations demonstrates that results vary considerably across municipalities.

Local governments should be permitted to define program parameters as the full costs and acceptable tenant contributions differ according to the distribution of housing stock, operating costs in the housing sector, and income distribution of the population.

Several of the variants simulated are self-financing, that is, providing enough revenue from the rent increase to cover allowance payments. Under those programs requiring a higher tenant contribution, the revenue increase covers the allowance program. The net revenue increase would allow for some reduction in subsidies to the sector and would provide funds to cover the administrative costs of the program. Since households currently report spending a higher percentage of income on housing than the 10 percent proposed, municipalities should strongly consider targeting household contribution at 15 or 20 percent of income.

A lower *MSR* also lowers participation and lower costs. However, a lower *MSR* results in more households living in units greater that the standard, more over-housed, and paying a larger percentage of their income. The concern is that if *MSR* is too low, i.e. much less than the rent for an average unit, the majority of household will be over-housed and may have difficulty making their housing payments. If *MSR* is adequate but over-housed households cannot meet their payments, an exchange policy to help them locate smaller, less costly units and an exemption from rent increases for an established period of time would alleviate this financial hardship. For example, the program in Solnok, Hungary allows a 6-month grace period to those who wish to exchange their unit and offers assistance in finding a new unit.

Program costs are directly affected by eligibility of housing types. Programs including cooperative units will require external financing to cover allowance payments. Some cooperatives are owner-occupied and residents pay maintenance fees to private maintenance companies: the city receives no revenue from these households. One alternative to providing allowances for their entire housing expenses is to offer a utilities allowance for cooperative owners and other owners. However, in order to create an equitable program of rental assistance, all renters including cooperative tenants and private renters should be included in the program.

Another option for municipalities is to implement incremental rent increases. This alternative will reduce participation in the first phase. For example, because the increase to full cost of maintenance in Zgierz is high, the municipality may chose to raise rents incrementally, say in two stages, to ease the financial burden on households and the administrative burden of implementing an allowance program. Under any program it is easier to expand than to contract. However, critics of a gradual approach claim that going slow will result in not "going" at all.

These simulations are a preliminary study of the effects of several variants of rent increase-housing allowance programs. More study should be undertaken in

each municipality to determine appropriate program parameters. However, these results do demonstrate the mechanics of the model and provide a starting point for further discussion of the program.

Table 7

COMPARISON OF RENT INCREASE-HOUSING ALLOWANCE STRATEGIES

Model:
Four standard rents for MSR based on amenities and utilities.
household contribution (t): 1 person: 12%; 2 - 4 person: 10%; more than 4 persons: 8%
Income limit: 1 person household 1.5 times lowest pension; 2 or more persons lowest pension per person

	Zgierz with Coops		Zgierz w/o Coops		Warsaw Cental		Warsaw Praga	
	income limit	no limit	income limit	no limit	income limit	no limit	income limit	no limit
Total Costs and Revenues								
Total allowance cost (zloty)	4118.70	5309.6	1675.36	2015.2	4784.62	9028.1	5826.2	8540.2
Revenue increase	1212.64	1212.64	1212.64	1212.64	7348.51	7348.51	3922.15	3922.15
Net revenue increase (after allowances)	-2906.06	-4096.96	-462.72	-802.56	2563.89	-1679.59	-1904.05	-4618.05
Total as % of revenue increase	340%	438%	138%	166%	65%	123%	149%	218%

Tenants in:	Zgierz, Coops		Zgierz, Municipal		Warsaw Cental		Warsaw Praga	
	income limit	no limit	income limit	no limit	income limit	no limit	income limit	no limit
Housing Expenses: as % of Income (before allowances)								
all households: mean	25%	25%	24%	24%	27%	27%	24%	24%
lowest quartile	44%	44%	35%	35%	42%	42%	40%	40%
2nd	23%	23%	31%	31%	27%	27%	27%	27%
3rd	16%	16%	14%	14%	22%	22%	18%	18%
highest quartile	17%	17%	14%	14%	17%	17%	14%	14%
Housing payments as % of Income (after allowances)								
all households: mean	15%	13%	8%	6%	17%	13%	12%	8%
income quartiles								
lowest quartile	18%	18%	5%	5%	15%	13%	10%	8%
2nd	16%	13%	10%	7%	18%	12%	12%	8%
3rd	12%	11%	9%	6%	20%	14%	13%	8%
highest quartile	15%	12%	8%	6%	17%	13%	12%	9%
Participation								
% receiving subsidies	58%	87%	64%	94%	35%	93%	51%	94%
% by income quartiles								
lowest quartile	100%	100%	91%	100%	93%	100%	91%	100%
2nd	60%	100%	75%	100%	41%	100%	67%	100%
3rd	38%	50%	40%	90%	12%	96%	31%	92%
highest quartile	20%	100%	43%	86%	-	77%	21%	83%
Average subsidy payment (thousands)	296.9	266.9	542.8	441.7	482.4	344.4	524.6	419.5

Table 8

COMPARISON OF RENT INCREASE-HOUSING ALLOWANCE STRATEGIES

Model:
Four standards for MSR based on amenities and utilities. Maximum eligible income = MSR/t
Household contribution (t) same for all

	Zgierz with Coops			Zgierz w/o Coops			Warsaw Central			Warsaw Praga		
	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%
Total Costs and Revenues												
Total allowance cost (zloty)	5324.1	3239.0	1985.2	1963.4	1357.8	913.3	9275.2	5661.4	3472.3 Q	8446.1	5544.8	3427.3
Revenue increase	1212.6	1212.6	1212.6	1212.6	1212.6	1212.6	7348.5	7348.5	7348.5	3922.2	3922.2	3922.2
Net revenue increase (after allowances)	-4111.5	-2026.4	-772.6	-750.8	-145.2	299.3	-1926.7	1687.1	3876.2	-4524.0	-1622.7	494.9
Total allowance as % of revenue increase	439%	267%	164%	162%	112%	75%	126%	77%	47%	215%	141%	87%

Tenants in:	Zgierz, Coops			Zgierz, Municipal			Warsaw Central			Warsaw Praga		
	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%
Housing Expenses:												
as % of income												
(before allowances)												
All households: mean	25%	25%	25%	24%	24%	24%	27%	27%	27%	24%	24%	24%
Lowest quartile	44%	44%	44%	35%	35%	35%	42%	42%	42%	40%	40%	40%
2nd	23%	23%	23%	31%	31%	31%	27%	27%	27%	27%	27%	27%
3rd	16%	16%	16%	14%	14%	14%	22%	22%	22%	18%	18%	18%
Highest quartile	17%	17%	17%	14%	14%	14%	17%	17%	17%	14%	14%	14%
Housing payments												
as % of income (after allowances)												
All households:	13%	17%	20%	6%	10%	14%	12%	18%	20%	8%	13%	16%
Income quartiles												
Lowest quartile	17%	22%	27%	4%	9%	14%	12%	17%	21%	7%	12%	17%
2nd	13%	17%	20%	7%	12%	17%	11%	16%	20%	8%	13%	18%
3rd	11%	13%	14%	6%	10%	13%	13%	18%	21%	8%	13%	16%
Highest quartile	12%	16%	17%	8%	10%	12%	13%	16%	16%	9%	12%	14%
Participation												
Tenants receiving subsidies	87%	68%	45%	94%	78%	49%	93%	74%	61%	92%	81%	45%
Tenants by income quartiles												
Lowest quartile	100%	100%	86%	100%	100%	96%	100%	100%	100%	100%	100%	88%
2nd	100%	80%	50%	100%	100%	75%	100%	88%	88%	100%	100%	50%
3rd	50%	38%	25%	90%	60%	27%	96%	89%	20%	92%	85%	25%
Highest quartile	100%	40%	-	86%	43%	30%	79%	29%	29%	75%	42%	-
Average subsidy payment (thousands)	272.2	195.9	167.5	430.3	361.4	309.3	350.7	269.4	249.2	424.5	315.3	259.9

Table 9

COMPARISON OF RENT INCREASE-HOUSING ALLOWANCE STRATEGIES

Model:

Standard for MSR based on average cost per square meter Maximum eligible income = MSR/t
Household contribution (t) same for all

	Zgierz with Coops			Zgierz w/o Coops			Warsaw Central			Warsaw Praga		
	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%
Total Costs and Revenues												
Total allowance cost (zloty)	6015.1	3609.8	2230.4	1510.8	923.7	586.4	10740.0	6690.0	4268.3	9601.1	6169.5	3785.6
Revenue increase	1212.6	1212.6	1212.6	1212.6	1212.6	1212.6	7348.5	7348.5	7348.5	3922.2	3922.2	3922.2
Net revenue increase (after allowances)	-4802.5	-2397.2	-1017.8	-298.2	288.9	626.2	-3391.5	658.5	3080.2	-5679.0	-2247.4	136.6
Total allowance as % of revenue increase	496%	298%	184%	125%	76%	48%	146%	91%	58%	245%	157%	97%

Tenants in:	Zgierz, Coops			Zgierz, Municipal			Warsaw Central			Warsaw Praga		
	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%
Housing Expenses:												
as % of income												
(before allowances)												
All households: mean	25%	25%	25%	24%	24%	24%	27%	27%	27%	24%	24%	24%
Lowest quartile	44%	44%	44%	35%	35%	35%	42%	42%	42%	40%	40%	40%
2nd	23%	23%	23%	31%	31%	31%	27%	27%	27%	27%	27%	27%
3rd	16%	16%	16%	14%	14%	14%	22%	22%	22%	18%	18%	18%
Highest quartile	17%	17%	17%	14%	14%	14%	17%	17%	17%	14%	14%	14%
Housing payments												
as % of income (after allowances)												
All households:	9%	13%	17%	9%	13%	16%	10%	15%	18%	6%	11%	15%
Income quartiles												
Lowest quartile	8%	13%	18%	5%	10%	15%	7%	12%	17%	2%	7%	12%
2nd	8%	13%	18%	15%	20%	25%	8%	13%	18%	7%	12%	17%
3rd	8%	12%	15%	7%	11%	13%	13%	18%	21%	8%	13%	17%
Highest quartile	13%	17%	17%	11%	14%	14%	13%	16%	17%	8%	12%	14%
Participation												
Tenants receiving subsidies	100%	81%	61%	100%	78%	50%	96%	79%	55%	99%	88%	64%
Tenants by income quartiles												
Lowest quartile	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
2nd	100%	100%	90%	100%	100%	75%	100%	100%	97%	100%	100%	100%
3rd	100%	75%	25%	100%	70%	10%	100%	100%	23%	100%	100%	42%
Highest quartile	100%	20%	-	100%	29%	-	96%	27%	-	96%	54%	21%
Average subsidy payment (thousands)	317.8	235.0	189.2	314.6	245.8	242.8	395.6	298.2	273.9	446.2	321.3	272.7

ABLE 10

COMPARISON OF RENT INCREASE-HOUSING ALLOWANCE STRATEGIES

odel:
andard for MSR based on average cost per square meter
plus average cost per person — Maximum eligible income = MSR/t
ousehold contribution (t) same for all

	Zgierz with Coops			Zgierz w/o Coops			Warsaw Central			Warsaw Praga		
	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%
tal Costs and Revenues												
tal allowance cost (zloty)	5822.1	3413.3	2034.1	1457.4	875.6	548.6	10805.0	6626.9	4186.7	8929.8	5552.6	3350.5
venue increase	1212.6	1212.6	1212.6	1212.6	1212.6	1212.6	7348.5	7348.5	7348.5	3922.2	3922.2	3922.2
t revenue increase	-4609.5	-2200.7	-821.5	-244.8	337.0	664.0	-3456.5	721.6	3161.8	-5007.7	-1630.5	571.7
ter allowances)												
tal allowance as %	480%	281%	168%	120%	72%	45%	147%	90%	57%	228%	142%	85%
f revenue increase												

nants in:	Zgierz, Coops			Zgierz, Municipal			Warsaw Central			Warsaw Praga		
	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%	t = 10%	t = 15%	t=20%
using Expenses:												
% of income												
efore allowances)												
nouseholds: mean	25%	25%	25%	24%	24%	24%	27%	27%	27%	24%	24%	24%
est quartile	44%	44%	44%	35%	35%	35%	42%	42%	42%	40%	40%	40%
d	23%	23%	23%	31%	31%	31%	27%	27%	27%	27%	27%	27%
	16%	16%	16%	14%	14%	14%	22%	22%	22%	18%	18%	18%
nest quartile	17%	17%	17%	14%	14%	14%	17%	17%	17%	14%	14%	14%
using payments												
% of income (after allowances)												
nouseholds:	9%	14%	18%	10%	14%	17%	10%	15%	18%	8%	12%	16%
ome quartiles												
est quartile	10%	15%	20%	6%	10%	16%	8%	13%	18%	6%	11%	16%
l	9%	14%	17%	15%	20%	25%	8%	13%	18%	8%	12%	18%
	8%	12%	14%	8%	11%	13%	13%	18%	21%	8%	13%	17%
nest quartile	12%	17%	17%	11%	14%	14%	12%	16%	17%	8%	12%	14%
ticipation												
eceiving subsidies	100%	84%	61%	100%	78%	50%	96%	82%	53%	98%	85%	61%
y income quartiles												
est quartile	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
l	100%	100%	90%	100%	100%	75%	100%	100%	93%	100%	100%	95%
	100%	75%	25%	100%	70%	10%	100%	96%	23%	100%	92%	35%
nest quartile	100%	40%	-	100%	29%	-	85%	38%	-	92%	50%	21%
rage subsidy payment	308.0	213.5	171.0	301.7	233	227.1	397.9	286.4	277.0	419.5	300.0	254.0
ousands)												